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**Rethinking Media Plurality Regulation:  
Promoting Exposure Diversity and Controlling the  
Power of New Online Selection intermediaries**

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By

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## **Abstract**

Due to the Internet and the convergence of technology, the media landscape has dramatically changed. The new problem of online media network is no longer the lack of information but rather the overload of information and how to find the information. This is because, with the abundance of information, what people see is not equal to what made available. The information-overload can result in narrowing the range of people's attention to concentrate around a few preference sources. From the media law scholars' perspective, the significant question now is whether people choose media contents diversely. The notion of media plurality has shifted from the concern about the diversity of available source and content to diversity of choices people make and diversity of actual content consumed by individuals, or the so-called 'exposure diversity'. Since people cannot consume all information presented to them, they rely on new 'online selection intermediaries' (i.e. search engine and social media) to assist them to find relevant information from infinite information. As a result, there is a shift of power from traditional media to new 'online selection intermediaries' which act as a gatekeeper to access to information. Selection intermediaries consequently have a significant influence on exposure diversity. Selection intermediaries therefore need to be regulated for the ultimate purpose of exposure diversity. However, the current existing laws have not moved from the design to regulate traditional media and to ensure a wide range of source and viewpoints available. They are still based on the perspective of the time when there were scarcity of analogue spectrum and high barriers to enter to media market. Consequently, the existing laws are inadequate to regulate the selection intermediaries to achieve diversity of viewpoints exposed to citizen. This thesis, therefore, discusses that the media regulation should be reformed to regulate selection intermediaries to encourage diversity of viewpoints actually exposed to people. This thesis proposes the appropriate approaches to regulate these new selection intermediaries for the achievement of exposure diversity.

This thesis is a correct and up to date statement of the relevant law as of 1 August 2018.

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## **Table of Abbreviations**

### **Acronyms**

Art.29WP	Article 29 Data Protection Working Party
CJEU	Court of Justice of the European Union
CoE	Council of Europe
ECtHR	European Court of Human Rights
ECJ	European Court of Justice
EU	European Union
FCC	The Federal Communications Commission
IPC	Information and Privacy Commissioner
OECD	The Organisation for Economic Co-operation and Development
Ofcom	The UK Office of Communications
RISJ	Reuters Institute for the Study of Journalism
The Commission	European Commission
UK	United Kingdom
UNESCO	The United Nations Educational, Scientific and Cultural Organisation
US	United States of America
MPM	Media Pluralism Monitor

### **Legislations**

AVMSD	Directive 2010/13/EU of the European Parliament and of the Council of 10 March 2010 on the coordination of certain provisions laid down by law, regulation or administrative action in Member States concerning the provision of audiovisual media services (Audiovisual Media Services Directive)
CA	UK Communications Act
ECHR	European Convention on Human Rights
GDPR	The Regulation (EU) 2016/679 on the protection of individuals with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation)
TFEU	Treaty on the Functioning of the European Union

### **Journals/Publishers**

CHI	Conference on Human Factors in Computing Systems
CUP	Cambridge University Press

CoUP	Columbia University Press
CPI	Competition Policy International
Eur.J.Com	European Journal of Communication
FUP	Fordham University Press
HBSP	Harvard Business School Press
ICWSM	International Conference on Weblogs and Social Media
Int.J.Com	International Journal of Communication
Int.J.Com.L.P	International Journal of Communications Law and Policy
Int.J.L.Info.Tec	International Journal of Law and Information Technology
IUI	International Conference on Intelligent User Interfaces
J.Bro.Elec.M	Journal of Broadcasting and Electronic Media
J.C.L.E	Journal of Competition Law and Economics
J.Com	Journal of Communication
J.Inf.Pol	Journal of Information Policy
J.M.L	Journal of Media Law
Harv.J.L.Tech	Harvard Journal of Law and Technology
LEA	Lawrence Erlbaum Associates
NMC	New Media and Society
Nw.U.L.Rev	Northwestern University Law Review
OUP	Oxford University Press
PUP	Princeton University Press
POQ	Public Opinion Quarterly
UMP	University of Michigan Press
YUP	Yale University Press

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## Introduction

### **Background**

In the pre-internet era, traditional media, namely newspapers and broadcasters, acted as the essential intermediaries of society's information flows. A few people who owned media companies controlled the power to speak effectively to a significant number of people while the audiences had no voice and were passive. The arrival of the Internet gave ordinary citizens the power to actively distribute media content to the public. As a result, the abundance of information provided by people represents an almost infinite choice for the public to choose from. These new form of communication technologies sparks some hopes in optimists that the new technology will solve the problem of an impoverished public sphere. Unfortunately, it reconfigures a more complex consolidation of power.

In the current environment of information-overload, the major problem regarding media content is not the lack of information but rather how to find the information. Attention becomes a scarcity for speakers and people need a guide to a particular perspective of the world. Information overload can result in narrowing of people's range of attention, so that concentrate only on a few sources. With limited time and attention available, people will only rely on selected sources they trust. This behaviour can generate audience fragmentation and audience polarisation with people participating only in like-minded groups that confirm their own views and reinforce their existing beliefs to an extreme extent after discussing issues among themselves. Consequently, people's behaviour of seeking out agreeable ideas creates an information cocoon which cuts them of from dissenting voices or contestable and opposite viewpoints; this is the so-called 'echo chamber' or 'filter bubble'.

Therefore, media plurality recently has focused less on diversity on the supply side i.e. diversity of source and diversity of available content. Instead, there are concerns about diversity from the audience side, that is the actual diverse content individuals are exposed to (the so-called 'diversity of exposure'). In other words, the significant question in the environment of overflowing available information is *whether people choose to expose themselves to a diverse range of media content (and if not, what can be done to improve*

*diversity of exposure*)? This is because, with the abundance of information, what people see does not equal to what made available.

In the Internet network structure, exposure diversity is affected by the operation of selection intermediaries i.e. search engines and social media. The term ‘selection intermediaries’ in this thesis therefore specifically refers to the two main intermediaries in the Internet media i.e. search engines and social media. Selection intermediaries act as the middleman between the audiences and content providers. They act as a gatekeeper to access to information. Selection intermediaries, therefore, play a key role in helping people find relevant information. Audiences now depend on these selection intermediaries to help them find certain content from the infinite information available. It is typically very difficult for the content to be found without intermediaries. Considering the power of selection intermediaries, they have the power to influence the diversity of media content people are exposed to by controlling the ‘findability’ of content. Selection intermediaries play a crucial role in expanding or diminishing the diverse content people are exposed to. The intermediaries’ operation of providing content recommendations can be considered an indication of the level of diverse content people are exposed to. Therefore, selection intermediaries should be regulated in order to safeguard exposure diversity.

A problem then arises regarding to what extent the existing laws, i.e. media law and competition law, can be applied to selection intermediaries in order to achieve diversity of viewpoints citizen are exposed to. The existing laws concentrate on the design of traditional media structure which is a TV-like service and have traditionally reflected the focus on diversity of sources and diversity of content. They are therefore inadequate to regulate these new intermediaries for the promotion of diversity of viewpoints exposed to citizen.

The legal provisions to encourage people to expose themselves to diverse content is still an issue that has rarely been considered. It prompts the question: what would be a suitable approach to regulate selection intermediaries for the ultimate purpose of ensuring exposure diversity? To encourage exposure diversity, this thesis proposes that media law can (and should) take a positive role in creating the conditions which encourage people to actually exploit selection intermediaries in order to effectively expose themselves to diverse content. In particular, certain obligations should be imposed on selection

intermediaries to have an active role and duty to assist people to expose themselves to more diverse content.

### **Objective and Scope of Research**

The purpose of this thesis is to determine the appropriate approaches to regulate new selection intermediaries to achieve diversity of content actually exposed to citizens. The overarching topic of the thesis relates to the role of online selection intermediaries which has a significant influence on the exposure diversity from a legal perspective. The research topic of the thesis reveals three significant points of interest:

First, the impact of social media and search engines on exposure diversity is an emerging topic. Nevertheless, it has not sufficiently been discussed in the legal context. Since the influence of the selection intermediaries on diversity of content citizens are exposed to is significant, it is therefore crucial to investigate the relation between selection intermediaries, the behaviour of people, exposure diversity and the public interest. The scope of exposure diversity which is under the consideration in this thesis is limited to news and current affairs.

Second, the thesis will examine the issues of selection intermediaries and exposure diversity with a focus on the concerns of legal perspective and policymakers. In doing so, it aims to draw conclusions on whether and to what extent the existing laws can be applied to control the conduct of selection intermediaries in regard to diversity of exposure. Specifically, the thesis assesses the laws and regulations in media law and competition law in the UK and EU as related to the principal theme of the thesis.

Lastly, the thesis also seeks to provide possible measures from other bodies of laws, particularly diversity by design, media literacy, net neutrality and impartiality for viable approaches to govern selection intermediaries for the promotion of exposure diversity. It is, however, beyond the scope of this thesis to answer what level of exposure diversity should actually be achieved. This is because this thesis is based on the perspective that the government should not intervene in the optimal amount of diverse content people consume. Instead, the thesis suggests that media law should assist people to be more aware of the choices they select from these intermediaries and should create requirements which selection intermediaries will operate in order to encourage people to access diverse choices.

## **The significance and originality of the study**

This thesis contributes to a number of original analyses concerning the overarching topic as to how to regulate online selection intermediaries to encourage citizens to expose themselves to diversity of content.

The first original contribution to the field of media law is the critical analysis of the issues concerning the emergence of new media and the impact of selection intermediaries on exposure of diversity. The issues concerning the new media structure and the impact of social media and search engines on society and people in various aspects have been discussed in the fields of sociology, political and media studies. Nevertheless, there is an absence of a substantive analysis from the legal perspective on the influence of selection intermediaries on the diversity content people are actually exposed to. Understanding the nature of the new media structure and the role of selection intermediaries is essential for the proposal of effective and viable measures to govern the new online intermediaries in respect of exposure diversity.

Interestingly, only a few sources of literature in media law discusses the EU media policies in term of exposure diversity. Moreover, there is a lack of discussion on the application of the current media law and competition law to selection intermediaries concerning the issue of exposure diversity. This thesis will provide an original legal analysis on whether and to what extent the current existing laws (i.e. media law and competition law) can be utilised for the regulation of the intermediaries in the issue of exposure diversity.

As a result of the analysis, this thesis will conclude that the current existing laws, both media law and competition law, are not adequate and appropriate to regulate selection intermediaries to encourage exposure diversity. The important question is therefore what can be a suitable solution to the research question. The thesis finds that although it is obvious that the government cannot force people to consume specific content from selection intermediaries, it does not mean that the government cannot play an active role in promoting and facilitating exposure diversity.

In the attempt to seek viable measures to be imposed on selection intermediaries, this thesis will analyse the possible regulations from other fields of law which could oblige selection intermediaries to encourage people to consume more diverse content.

Although media of all genres have the potential to impact upon the attitudes and opinions of people, the thesis acknowledges that it would be most efficient to focus on the scope of news and current affairs. As for the existing knowledge in this regard, there are a number of sources of literature concerning approaches in other bodies of laws which are relevant to regulate selection intermediaries; however, the approaches have never been suggested to apply to the new online intermediaries in the context of exposure diversity. The ultimate contribution provided by this thesis for the advancement of existing knowledge is therefore the proposal of the measures to regulate selection intermediaries for the achievement of exposure diversity.

### **Methodology and Thesis Outline**

The thesis contains a series of chapters. The chapters are linked together to progress the narrative of the thesis as methodically as possible. Each chapter contributes to the analysis and discussion of selection intermediaries for the ultimate aim of creating the regulation framework for the promotion of exposure diversity. This research adopts a doctrinal methodology drawing mainly from legal literature, instruments and judicial decisions in international and regional instruments and the UK law. As a support to the doctrinal analyses, empirical researches in the fields of media and communication, science technology and sociology as relevant to the thesis are selected to discover the behaviour of people in the consumption of media content in the digital age. The research methodology of this thesis is delineated further below with the structure of the work.

The thesis consists of five chapters. The following overviews will outline the purpose of each chapter and highlights the interesting points associated with them. Each overview will also provide a brief explanation on how each research question is to be answered and the research methodology that is to be applied.

The first chapter will introduce the new structure of the media emerged from the convergence of the digital technologies. It will analyse the change of the media landscape and the role of selection intermediaries. The issues concerning the emergence of new media have been discussed in fields of sociology, political and media studies. Some empirical data findings concerning the impact of social media and search engines on society and people in various aspects have been analysed. This chapter therefore encompasses broad doctrinal research from these fields of study, including the literature that draws on various secondary sources as relevant to the research question.

Chapter 2 then discusses the notion of exposure diversity and its relation to selection intermediaries. This chapter will intensively analyse why exposure diversity is crucial and worthy of concern. This chapter will encompass doctrinal research on various secondary sources. The existing empirical studies concerning exposure diversity and selection intermediaries from other fields of study will also be examined as an evidence to support the relevant theories analysed in this chapter. Chapter 1 and Chapter 2 will demonstrate that there is a need to regulate selection intermediaries for the achievement of exposure diversity.

As concluded in Chapter 2 that selection intermediaries need to be regulated, Chapter 3 therefore delineates the problems of the application of existing media law and competition law to selection intermediaries for the diversity of exposure. The methodology of this chapter is predominantly doctrinal, drawing on both primary sources (i.e. the UK Communications Act 2003 and the AVMSD) as well as secondary sources. The Google Search case (COMP/AT.39740) will also be analysed in relation to competition law. Chapter 3 eventually concludes that the existing laws and regulations are insufficient to control selection intermediaries.

Next, Chapter 4 will strive to create a new regulatory regime to impose the role and duty on selection intermediaries in order to accomplish exposure diversity. This chapter will analyse possible regulations from other fields of law to govern selection intermediaries in order to encourage people to consume more diverse content. This chapter will examine the three measures (i.e. data protection by design, media literacy, and net neutrality and impartiality) as an analogy to regulate selection intermediaries for the achievement of exposure diversity. This chapter therefore encompasses broad doctrinal research that draws on various secondary sources, including the literature from other fields of study as relevant to the research question. The studies from other academic fields will be provided as examples to demonstrate how selection intermediaries could possibly be designed to promote exposure diversity.

Lastly, Chapter 5 will outline and summarise the key points of interest and originality and the approaches proposed within this thesis.

## Chapter 1

### Introduction: New structure of the media in the Internet age

The UK and global media environment is changing because of new technologies. The change in the media landscape is driving the creation of new forms of media, reshaping media consumption patterns and having a profound impact on the way people relate to information at an ever accelerated rate. For instance, digital media and the deluge of information available at a touch of a finger-tip offers filtering mechanisms to screen out content. While this new reality empowers individuals to choose diverse content, it also creates more isolated communities, narrowing the variety of perspectives they are exposed to, thereby negatively affecting exposure diversity.

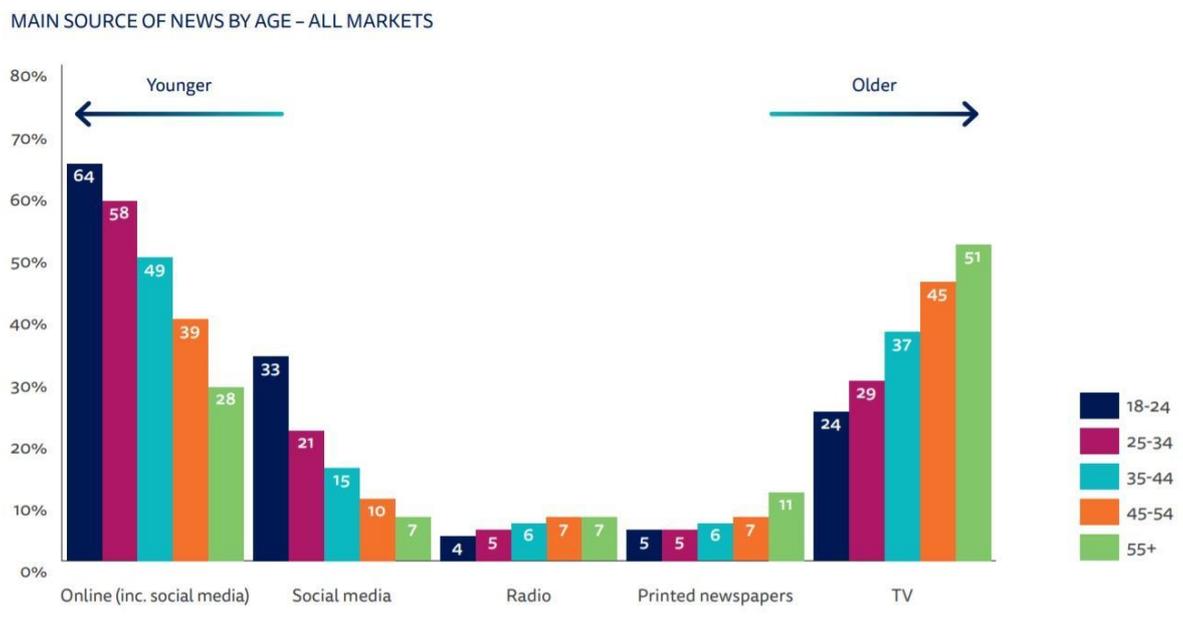
The first chapter, therefore, begins by providing an overview of the changes in the media landscape as a fundamental basis for the discussions and analyses throughout the thesis. There are three major changes. First, in the environment of abundant information, the scarcity of resource is no longer the matter of the spectrum or content but the attention of people. In the Internet network structure, people find information through links. Therefore, controlling the links means controlling the attention of people. Second, the audiences have shifted from a passive position to an active one. The behaviour of people has changed from passively receiving content from media companies to actively finding what they are interested on the Internet. Third, there is an arrival of new selection intermediaries, specifically search engines and social media. These new players play a significant role in influencing how people receive information in the digital age.

#### **Part I: Online media, attention and links**

Media now has moved from traditional media to online platforms. People consider the Internet as a de facto platform to exchange of information and digital information is a de facto standard form of content. A lot of websites have become major sources of information: besides, information conveyed from the websites are considered as importance as information from traditional media. Also, traditional media entities cannot ignore the potential of the Internet in information exchange and consequently must establish or move to online platforms. According to six years' data from a Reuter report, a consistent pattern is that television news and online news are the most frequent sources

people use for news, while readership of printed newspapers has declined significantly.<sup>1</sup> Also, across all countries sampled, younger age-groups are much more likely to use online media as the main source of news than the older groups (see Figure 1). Similarly, data from an Ofcom report, confirm that the total UK digital audience reached 50.4 million in March 2017.<sup>2</sup> Notably, younger children (age 3-4, 5-7s and 8-11s) going online than in 2016 (increased by more than ten percent): as a consequence, half (53%) of 3-4s, 79% of 5-7s and 94% of 8-11s are now online.<sup>3</sup>

Figure 1: Main source of news by age<sup>4</sup>



The expansion of the digital world has led to the emergence of a wide range of sources and opinions available. Unlike the traditional media, the Internet enables dissemination of a high volume of information rapidly and cheaply. This shift of online media environment creates a model of collaboration and continuous data creation. Even though the amount of data available on the Internet has increased exponentially, the capabilities of people to absorb information have not increased. People can effectively process and receive information only up to a certain point: if further information is

<sup>1</sup> Nic Newman, et al., 'Reuters Institute Digital News Report 2017' (RISJ, 2017) 10.

<sup>2</sup> Ofcom, 'Communications Market Report 2017' (Ofcom, 3 August 2017) 184.

<sup>3</sup> Ofcom, 'Children and parents: media use and attitudes report 2017' (Ofcom, 29 November 2017) 7.

<sup>4</sup> 'Reuters Institute Digital News Report 2017', 10.

provided beyond this point, the performance of the individual will rapidly decline.<sup>5</sup> Due to this limited capacity of human's mind, people tend to be overwhelmed by the number of choices available. At present, information overload is a growing problem in the digital world. The rapid and extensive dissemination of news, information, and commentary makes it difficult for individuals to select relevant information. The attention of audiences, consequently, becomes the most valuable resource online.<sup>6</sup>

Online space maybe preserved for every group and voices; however, communication may be largely marginalised in the competition for users' attention. Although it is cheaper and easier to publish content and opinions on the Internet, having them noticed is another matter. With millions of websites and millions more information being created, being noticed by more than a handful of people is extremely difficult for most online participants. The phenomenon that attention has become the limiting factor in the consumption of information and the importance of management dealing with human attention as a scarce commodity is referred to as 'the attention economy'.<sup>7</sup> Simon, a Nobel prize-winning economist, claims the prominent role of attention in the information society that:

'In an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes. What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it.'<sup>8</sup>

Consequently, the asymmetry between information and attention makes attention in the digital economy particularly crucial. Many online media seek attention and find a way to increase its popularity. When one media site gets more attention, another media attention is probably getting less attention. These media content producers compete for the limited time of consumers. Franck conceptualises attention as 'capital' that involves

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<sup>5</sup> See Martin Eppler and Jeanne Mengis, 'The concept of information overload' (2004) 20(5) *The Information Society* 325.

<sup>6</sup> James Webster, *The Marketplace of Attention* (MIT Press 2016)

<sup>7</sup> See Thomas Davenport and John Beck, *Attention Economy* (HBSP 2001); Tiziana Terranova, 'Attention, Economy and the Brain' (2012) 13 *Culture Machine*; Patrick Crogan and Samuel Kinsley, 'Paying Attention: Towards a Critique of the Attention Economy' (2012) 13 *Culture Machine*.

<sup>8</sup> Herbert Simon, 'Designing organizations for an information-rich world' in Martin Greenberger (ed.), *Computers, Communications and the Public Interest* (Johns Hopkins University Press 1971) 38, 40.

a myriad of business activities, such as investment, circulation, and generation of more capital.<sup>9</sup> New media makes an amount of their revenue from supplying attention. For example, media entities need to monetise users' attention by selling advertising space, increasing network of popularity and establishing strong branding and loyalty of audiences. This new form of attention economy has transformed the old economy which based on the distribution and production of content into an economy which comprising a system of primarily paying, receiving, and seeking the most intrinsically limited attention of audiences.<sup>10</sup> Therefore, the rivalry for scarce attention is central to understanding competition among online media in the digital economy.<sup>11</sup>

The attentions of online audiences are led by links. A hyperlink, or a link, may be defined as a technological capability that enables one specific website (or webpage) to link with another: 'cross-reference . . . appearing on one [W]eb page that, when activated by the point-and-click of a mouse, brings onto the computer screen another [W]eb page'.<sup>12</sup> Links are critical to communication because they facilitate access to information. Hyperlink have always been the central structure of the world wide web since its inception in the early 1990s. At the core of its architecture is the reason why the Internet is originally characterised as the network of networks and the way we can refer to a 'web'.<sup>13</sup> Berners-Lee developed the Internet in order to reframe the way we use information by creating a virtual documentation system people could share documents with ease and speed.<sup>14</sup> This universal space of information was to be navigated via hyperlinks. The ability to link information is a fundamental characteristic standing out as the essential differentiation between the Internet and other media platforms.<sup>15</sup>

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<sup>9</sup> Georg Franck, 'The Economy of Attention' (Telepolis, 7 December 1999) <<https://www.heise.de/tp/features/The-Economy-of-Attention-3444929.html>>

<sup>10</sup> Michael Goldhaber, 'The value of openness in an attention economy' (2006) 11(6) First Monday <[http://firstmonday.org/ojs/index.php/fm/article/view/1334/1254%20\(accessed%208%20May%202012\)](http://firstmonday.org/ojs/index.php/fm/article/view/1334/1254%20(accessed%208%20May%202012))>

<sup>11</sup> David Evans, 'Attention Rivalry Among Online Platforms' (2013) 9(2) J.C.L.E 313, 318.

<sup>12</sup> *Universal City Studios, Inc. v. Corley*, 273 F.3d 429, 455 (2d Cir. 2001).

<sup>13</sup> In this Thesis, the terms 'Internet' and 'World Wide Web' are used interchangeably. It should be noted that there are distinctions between 'Internet' and 'World Wide Web'. The Internet is a massive networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. World Wide Web or 'web' is a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet. The Web also utilizes browsers, such as Internet Explorer or Firefox, to access Web documents called Web pages that are linked to each other via hyperlinks.

<sup>14</sup> Tim Berners-Lee, *Weaving the web* (Harper Collins Publishers 1999).

<sup>15</sup> Philip Napoli, 'Hyperlinking and the forces of massification' in Joseph Turow and Lokman Tsui (eds), *The Hyperlinked Society* (UMP 2008) 56.

In this Thesis, the terms ‘Internet’ and ‘World Wide Web’ are used interchangeably. It should be noted that there are distinctions between ‘Internet’ and ‘World Wide Web’. The Internet is a massive networking infrastructure. It connects millions of computers together globally, forming a network in which any computer can communicate with any other computer as long as they are both connected to the Internet. World Wide Web or ‘web’ is a way of accessing information over the medium of the Internet. It is an information-sharing model that is built on top of the Internet. The Web also utilizes browsers, such as Internet Explorer or Firefox, to access Web documents called Web pages that are linked to each other via hyperlinks.

The value of the Internet comes from the links that connected websites to each other. Without the links, information would only be accessible if you knew the exact address of the information for which you were searching. The Internet will ‘lose its power if there are certain types of things to which you can’t link’.<sup>16</sup> Online platforms would have been an impenetrable mess. Schulman illustrates the social power of hyperlinks that:

‘Hyperlinks are the glue of these online communities, forming digital footprints of the way individuals make connections. Through a simple selection to include, exclude or just follow a link in our daily online interactions, we passively telegraph the way we see the world, what is important to us, to what degree and why.’<sup>17</sup>

In the Internet network structure, it is ‘links’ that determine where certain content can be found among the abundance of information. People find information through links. The robust use of hyperlinks became critical to navigate attention of online users through the flood of content by establishing that one content is better or more important than another. Under this view, if the Internet is an endless bustling field of information then hyperlinks are the paths which create a clear street among websites.

## **Part II: Active viewers but illiterate audiences**

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<sup>16</sup> Tim Berners-Lee, ‘Realising the Full Potential of the Web’ (1999) 46(1) *Technical Communication: Journal of the Society for Technical Communication* 79, 79.

<sup>17</sup> Stacey Schulman, ‘Hyperlinks and marketing insight’ in Joseph Turow and Lokman Tsui (eds), *The Hyperlinked Society* (UMP 2008) 145, 147.

In the pre-internet age, a characteristic of traditional media was the powerlessness of viewers and the lack of responsiveness of audiovisual media.<sup>18</sup> The activity of broadcasting was in the hands of the privileged who processed a licence to broadcast or had the wealth to invest in print media. These select few broadcaster determined content by providing prescheduled programmes to an anonymous mass of receivers. Audiences, then, had limited power to shape the media choices: they could only choose what to consume by switching between a few predefined program packages. The participation and feedback of viewers were excluded from the system.<sup>19</sup> This is because the media operators marketed the programs to advertisers rather than to the audience.<sup>20</sup> As Helberger comments:

‘For decades, broadcasting viewers have remained discreetly in the background of media policy, rolling their eyes and faithfully consuming what’s on TV. ...The viewers remained where they were: stretched out lazily on the couch, consuming popcorn and programmes.’<sup>21</sup>

Thanks to the development of the Internet, digital technology and convergence media, the traditional idea of viewers as powerless eyeballs started to fade away. Audiences nowadays are empowered to seek out new information among dispersed media content and have a greater ability to interact with the media.<sup>22</sup> They are now more and more flexible and dynamic in choosing content<sup>23</sup>: viewers are encouraged to actively select content at the time and place chosen by them or simultaneously consume two or more screens (multitasking).<sup>24</sup> Also, people are in many ways involved with media that go beyond pure reception. They carry out other kinds of activities and communicate with one another in a variety of ways such as sharing, commenting, creating and uploading content. This new environment is the framework of the participatory culture and

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<sup>18</sup> Thomas Gibbons, *Regulating the Media* (2nd edn, Sweet&Maxwell 1998).

<sup>19</sup> Alan Peacock, ‘The Future of Public Service Broadcasting’ in Cento Veljanovski (ed), *Freedom in Broadcasting* (IEA 1989) 53.

<sup>20</sup> Jerome Rothenberg, ‘Consumer Sovereignty and the Economics of Television Programming’ (1962) 4 *Studies in Public Communication* 45.

<sup>21</sup> Natali Helberger, ‘From eyeball to creator’ (2008) 19(6) *Entertainment Law Review* 128, 128.

<sup>22</sup> Henry Jenkins, *Convergence culture* (New York University Press 2006) 3.

<sup>23</sup> Michael Curtin, ‘Matrix media’ in Graeme Turner and Jinna Tay (eds), *Television Studies After TV* (Routledge 2009) 9.

<sup>24</sup> Philip Napoli, *Audience evolution* (CoUP 2010).

participatory audience.<sup>25</sup> Viewers are no longer mere passive observers; they also actively engage in media production and distribution.<sup>26</sup> Audiences can be seen as individual nodes of decentralised network<sup>27</sup> which function as active creators, aggregators, disseminators, raters, storers, and so on.

For instance, New forms of media in broadcasting-like activities which compete with traditional broadcasting have emerged, examples of which include: pay-TV, on demand, pay-per-view, catch-up TV and similar business models. At the same time, a new type of content produced and distributed by users on the Internet platform (referred to as ‘user-generated content’ or ‘UGC’) has emerged and become a new culture.<sup>28</sup> This has leads to services which integrate user-generated content.<sup>29</sup> These services include social networking sites (like Facebook and Twitter) which offer users the possibility to share photos, stories, videos, commentaries with each other, and video-sharing sites (like YouTube) which stores a wide and diverse sources of video content.<sup>30</sup> Moreover, audiences are involved in various aspects of the supply chain of media production such as enabling users to rate, rank and contribute materials.<sup>31</sup> In particular, Ikoptyv<sup>32</sup>, a Dutch service, encourages amateurs to film and report news to win a prize. Consequently, user-generated contents has gradually entered into the traditional broadcasters.

With the help of mobile phones, the Internet, and digital technology, citizens became producers of news and break the professional journalist’s monopoly of imparting information, known as ‘citizen journalism’. Citizen journalism refers to active people who are not professional journalists but involve in the process of collecting, reporting, analysing and disseminating news and information.<sup>33</sup> Since it is universally accessible

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<sup>25</sup> Sonia Livingstone, ‘The participation paradigm in audience research’ (2013) 16(1-2) *Communication Review* 21.

<sup>26</sup> Peggy Valcke, ‘Challenges of Regulating Media Pluralism in the European Union’ (2012) 15(1) *Quaderns del CAC* 25.

<sup>27</sup> Tim O’Reilly, ‘What is Web 2.0.’ (O’ReillyNetwork, 30 September 2005) <<http://www.oreillynet.com/lpt/a/6228>>

<sup>28</sup> See e.g. Lawrence Lessig, *Remix* (Penguin Press 2008); Patrick McKay, ‘Culture of the Future’ (2011) 24 *Regent University Law Review* 117.

<sup>29</sup> Lessig, *Ibid.*

<sup>30</sup> Corina Pascu et al., ‘Social computing–Implications for the EU innovation landscape’, (2008) 10(1) *Foresight* 37.

<sup>31</sup> See e.g. The Guardian ‘News Desk live’ (<https://www.theguardian.com/news/series/newsdesk-live>) and ‘You Tell Us’ (<https://www.theguardian.com/commentisfree/series/you-tell-us>)

<sup>32</sup> <<http://www.ikoptvfinl>>.

<sup>33</sup> See Steve Paulussen et al., ‘Doing it together’ (2007) 1(3) *Observatorio (OBS) Journal* 131.

and globally relevant, citizen journalism has now become an important part of the correction of official sources within traditional media.<sup>34</sup> Besides, the Internet allows ordinary people to express their opinion to millions of people worldwide via blogs. A blog is a type of website that allows users to write on a variety of topics, from intimate diaries to political commentaries.<sup>35</sup> Today, blog is a new form of media which provides information and comment the same way as an article in magazines or newspapers.

Notably, however, not all users actively interact with media content and not all of them are literate audiences. The fact that digital technology produces a new dimension of choice does not mean that all audiences choose to consume different viewpoints. Becoming an active viewer does not imply that they will be a literate audience. The majority of viewers passively consume content; media literacy therefore becomes a critical matter. Further discussion about media literacy and the problem of people's skills in online media will be provided in Chapter 4.

### **Part III: The arrival of selection intermediaries**

The Internet changed the media landscape. In the pre-internet era, traditional media which are newspapers and broadcasters acted as essential intermediaries of information flows.<sup>36</sup> A few people who own media companies controlled the power to speak effectively to a significant number of people. The arrival of the Internet enabled ordinary citizens to distribute media content to the public.<sup>37</sup> As a result, the abundance of information provided by people represents an almost infinite choice. With the abundance of information, people cannot consume all information presented to them. The major problem in an environment of overflowing information is how to find certain content. People need a guide to find and select only a few choices which present a certain aspect: a major question is who are the gatekeepers that can encourage people to consume diverse or different viewpoints?

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<sup>34</sup> Demir Hodzic, 'Citizen journalism and its importance' (FLOWS in Media and Communication, 23 May 2013) <<http://iletisim.ieu.edu.tr/flows/?cat=8>>

<sup>35</sup> Ibid.

<sup>36</sup> See generally Thomas Cotter, 'Some Observations on the Law and Economics of Intermediaries' (2006) 1 Michigan State Law Review 67, 69-71.

<sup>37</sup> Manuel Castells, 'Communication, Power and Counter-power in the Network Society' (2007) 1(1) Int.J.Com 238.

On the Web, people find information through links. The hyperlinks became critical to navigate attention of online users and facilitate access to information through the flood of content. Selection intermediaries emerged as a tool to gather links for the audience in order to find and select content. Consequently, audiences rely on new online selection intermediaries to assist them in finding relevant content from infinite information. Selection intermediaries, therefore, have a potential to influence people's exposure to diverse media content.

The term 'selection intermediary' is defined by Chandler as: 'a class of [the Internet] intermediaries that select and filter information en route to listeners. Examples of this class of "selection intermediaries" include search engines, software filters, Internet Service Providers ("ISPs") that block or filter content, and spam blocklists'.<sup>38</sup> Van Hoboken uses the term 'selection intermediaries' to denote a range of intermediary service providers and technologies which map, order, select, validate and value online information such as search engines, reputation and tagging systems, folksonomies, suggestion services. These intermediaries facilitate the access to information and make the abundance of data on the Internet more easily navigable.<sup>39</sup> While Chandler's selection intermediaries encompass intermediaries that block or filter content, the definition provided by van Hoboken includes search engines or information location tools in a broad sense but does not include filters.

Due to the broad scope of possible selection intermediaries, this thesis focuses on two types of online media intermediaries for the purpose of the study on exposure diversity: i.e. search engines and social media. Thus the term 'selection intermediaries' used in this thesis shall only be referred to search engine and social media. The definitions and scopes of search engine and social media are respectively analysed below.

### 1. Search engines

Search engines can be categorised as software<sup>40</sup>, rather than machine in a traditional sense. They use particular methods to present search results from an index of defined data

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<sup>38</sup> Jennifer Chandler, 'A Right to Reach an Audience' (2007) 35(3) Hofstra Law Review 1095, 1096.

<sup>39</sup> Joris van Hoboken, 'Legal Space for Innovative Ordering' (2009) 13 Int.J.Com.L.P 2-3.

<sup>40</sup> Thus Google Chrome which combines browsing and search capacity also fall in the scope of search engines.

that is accessible using retrieval methods.<sup>41</sup> To simplify, search engines are programs that search identified items for specified keywords in a database and return a list of the results where the keywords were found. However, the term is often used to specifically describe web services that collect and organise content from all over the Internet and helps its users to locate content on the Internet such as Google, Bing and Yahoo! Search. A search engine in isolation is useless. It becomes valuable only through interactions with content providers and with users: when it can match users with appropriate content providers by aggregating information and presenting it in a useful form.<sup>42</sup>

Search engines can be categorised into organic search and advertised search. Organic search or natural search refers to the search results provided at no direct cost to linked pages and users (not advertising results, no money charges and there is no payment for inclusion or for a better ranking). Search results are based on their quality and relevance as well as their likelihood of satisfying the searcher's intent. Advertised search or paid search ('Pay Per Click') generates sponsored search results with payment from advertisers, e.g. by auction. It is a form of advertisement sold by search engines for advertisers to appear next to search results based on the search word or phrase.<sup>43</sup> Also, in the search industry, search engines can be conceptually divided between horizontal search and vertical search. Horizontal search or general search provides broad information that encompasses the entire spectrum of Internet material. At its simplest, anyone can search for anything by typing (or voicing) a query and receive links (or responded answers) to contents that satisfy their need. Vertical search or specialised search, by contrast, is designed to provide search results for a particular area to help users find specific subjects (products, information and services). A list of areas covered by vertical search engines includes financial information, entertainment products (e.g. music and videos), news (e.g. weather), travel information, and maps.

For this thesis, 'search engine' is a web search service which helps users to find pages or sites on the Internet: excluding search service provided as a function to find specific content within certain sites and peer-to-peer systems. Also, to analyse the effect of search engines on media plurality, this thesis will focus on organic search engines

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<sup>41</sup> Bernhard Rieder, 'Networked Control' (2005) 3 *International Review of Information Ethics* 27.

<sup>42</sup> James Grimmelmann, 'The Structure of Search Engine Law' (2007) 93 *Iowa Law Review* 1, 7.

<sup>43</sup> E.g. Product Listing Ads which is a picture of advertisement for individual products appear above, or to the side of the search results.

which are capable of providing search results containing media content: particularly general search engines and some specialised search such as Google News.

Search engines generate search results by storing and indexing a large number of web contents on its servers. They use automated programs called ‘robots’, ‘spiders’, or ‘crawlers’ to discover content and pages.<sup>44</sup> After pages are explored, contents from the pages are stored and the index of contents is created automatically. Search engines utilised their cached content and the index to match search queries.<sup>45</sup> Search engines do not explore every site on the Internet. Whether purposely or accidentally, some are entirely excluded and some are partly incorporated.<sup>46</sup> Therefore, pages that are not found, stored and indexed cannot appear on search results and are not drawn to people’s attention.

Search engines receive queries from searchers and process and analyse search results using algorithms.<sup>47</sup> In this process, other information of the user is also taken into account along with the queries including geographic location, operating system and browser, preference of result types and search histories. The information is exploited to personalise and customise search results to mostly satisfy searchers. Search results, therefore, are different from person to person depending on this information; this practice raises concerns about filter bubble effect.<sup>48</sup>

Finally, search engines provide users with results in the form of ranking. Ranking results can have a crucial effect on diverse content exposed to people. Most searchers usually consider only the few top-ranked results by assuming without doubt that the upper results are more relevant than lower ones.<sup>49</sup> Consequently, most of the results that appear further down the list are invisible to users.

## 2. Social media

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<sup>44</sup>Alexander Halavais, *Search engine society* (Polity 2009) 14.

<sup>45</sup> Mark Levene, *An introduction to search engines and Web navigation* (Wiley-Blackwell 2010) 82-85.

<sup>46</sup> Elad Segev, *Google and the digital divide* (Chandos Pub 2010) 26-27.

<sup>47</sup> ‘Algorithms refer to the components of software that make up information and communication infrastructures. If software is the set of instructions that direct a computer to do a specific task then algorithms are the instructions. They do things... involves processing an input toward an output. One algorithm informs another, creating a continuous modulation ....’ (Fenwick McKelvey, ‘Algorithmic Media Need Democratic Methods’ (2014) 39(4) *Canadian Journal of Communication* 597, 598)

<sup>48</sup> See Chapter 2 Part II 1b.

<sup>49</sup> Chitika Research, ‘The value of google result positioning’ (Chitika, 6 December 2013) <<https://chitika.com/google-positioning-value>>

Due to the variety of evolution in (both stand-alone and built-in) social media services, there are many definitions for social media. According to Kaplan and Haenlein, social media is:

‘a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0<sup>50</sup>, and that allow the creation and exchange of User Generated Content.’<sup>51</sup>

This definition makes it clear that social media is a new generation of Internet platform where users can participate more actively in the process of content organisation by using web technology. It is a platform whereby content and applications are no longer created and published by individuals, but are continuously modified by all users in a participatory and collaborative fashion. Under this definition, there are different categorisation of social media. For instance, Kaplan and Haenlein differentiate social media as collaborative projects, virtual worlds, blogs, content communities, and social networking.<sup>52</sup> On the other hand, Rouse suggests that microblogging, social networking, social bookmarking, social curation, and wikis are among the different types of social media.<sup>53</sup> However, social media can be considered as having the four common prominent features which are: (i) it is an interactive web 2.0 Internet-based applications, (ii) user-generated content is the lifeblood of the social media organism, (iii) users create service-specific profiles for the social media platform, and (iv) it facilitates online social networks by connecting a user with other individuals or groups.<sup>54</sup>

In this thesis, the scope of social media is defined as platforms of interactive electronic communication based on web 2.0 which enable users to create and share information, ideas, content, personal interests, and other forms of expression (such as videos) to the public. It is a collective platform where users intentionally interact in media content-sharing, participatory-based input and collaboration the same way as media reporters disseminate media content. Content disseminated in social media platform are not created and organised by individual editor of a webpage, but are continuously

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<sup>50</sup> Web 2.0 refers to Internet platforms that allow for interactive participation by users.

<sup>51</sup> Andreas Kaplan and Michael Haenlein, ‘Users of the World, Unite!’ (2010) 53 *Business Horizons* 59, 61.

<sup>52</sup> *Ibid.*

<sup>53</sup> Margaret Rouse, ‘Social media’ (2016) <<https://whatis.techtarget.com/definition/social-media>>

<sup>54</sup> Jonathan Obar and Steven Wildman, ‘Social Media Definition and the Governance Challenge’ (2015) 39(9) *Telecommunications Policy* 745.

generated and shared by all users. The organization of content in social media (such as selecting, prioritizing, excluding, and arranging) is in the editorial management way of media entities and is automatically facilitated by algorithms.

For this thesis, social media, therefore, is distinct from social network<sup>55</sup> which refers to ‘web-based software application that helps users connect and socialise with friends, family members, business partners, or other individuals’.<sup>56</sup> Boyd and Ellison also describe social network as web-based platforms that ‘allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others’.<sup>57</sup> Such platforms provide individuals the ability to interact and socialise with one another by engaging in conversations or a discussion over a particular event in the same way as e-mail and telephone or communication operators. They typically include chatting, private messaging, video call, voice call, file sharing, blogging, and discussion groups. The examples of social network are such as Whatsapp, Snapchat, Skype and Messenger (the function of private message in Facebook).

Notably, this differentiation does not aim to clearly classify distinct types of online services. Due to the convergence of platform and technology, many online platforms combine both the functions of social media and social networking. In practice, social media have many forms and some of them may overlap with other services such as news aggregators (see Figure 2 below). Therefore, it causes practical problems if regulators try to categorise each online platform separately by regarding the whole operation in certain service. The distinction in this thesis is for the focus on social media’s functions or operations in any online platforms which are under the consideration of media plurality concerns. Also, this thesis will focus on social media which people commonly uses for disseminating (or is capable of providing) media contents such as news and current affairs.

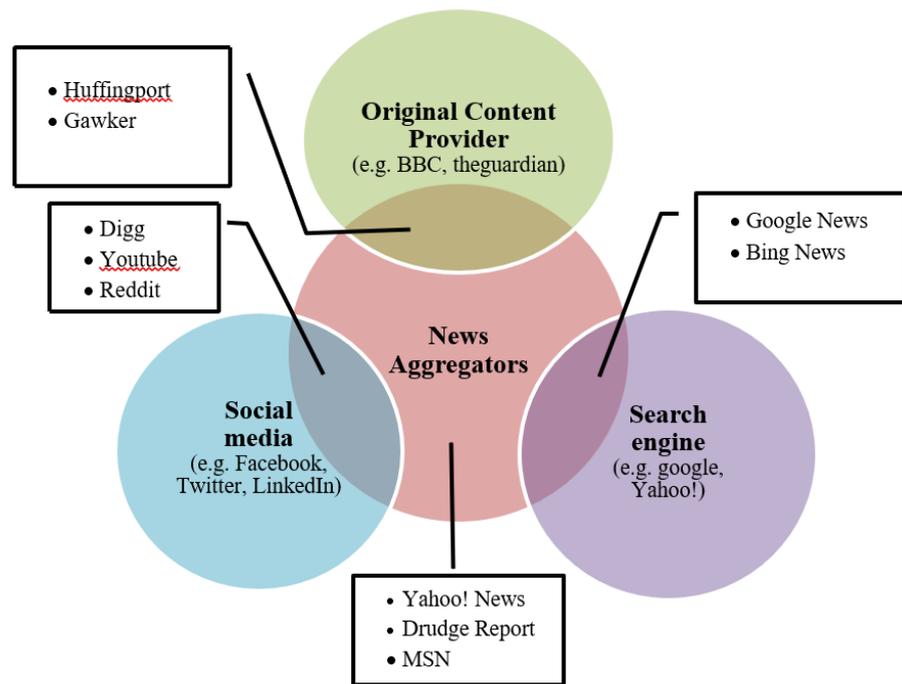
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<sup>55</sup> Normally, ‘social media’ and ‘social network’ is interchangeably. However, there are discussion on the difference between them.

<sup>56</sup> Devi Gnyawali et al., ‘Competitive Actions and Dynamics in the Digital Age’ (2010) 21(3) *Information Systems Research* 594, 595-596.

<sup>57</sup> danah boyd and Nicole Ellison, ‘Social Network Sites’ (2007) 13(1) *Journal of Computer-Mediated Communication* 210, 211.

Figure 2: The intersection of media platforms



Under this definition, Facebook is obviously a social media. The definition also includes platforms such as Myspace, Google+, Tumblr and other sites that have the features or functions similar in common. These sites facilitate the sharing of texts, pictures, videos, audio files, and applications. Social media includes microblogging which is a web service allowing registered members to broadcast or share short messages to a global audience of the service. Twitter is one of the most popular microblogging services: Twitter users may know very few of their followers and most tweets are public and searchable on the Internet so Twitter links vast numbers of people otherwise unknown to one another. Also, content communities and social curation fall under the definition of social media. Content communities are sites where users can share multimedia content with other members of their online community. Well-known examples of these communities include Flickr and YouTube. These sites have the power to make certain topics go viral through pictures and videos. Social curation is a collaborative sharing of web content organised around one or more particular themes or topics. Well-known social curation sites are Digg, Pinterest, BuzzFeed and Reddit. These sites are forums where stories are socially curated and promoted by site members. They allow users to suggest links to articles and allow other readers to vote. However, social media in this

thesis does not include a blog, discussion board or bulletin board, Wiki and virtual worlds. This is because online communications in blog, discussion board or bulletin board and Wiki are in the same way as the interaction in social network and the organization of content in such platforms (i.e. selecting, prioritizing and disseminating) is not automatically facilitated by algorithms. Also, virtual world is commonly used for gaming not for disseminating media contents.

### 3. Media power of selection intermediaries

It is crucial to examine the media power of the two selection intermediaries i.e. search engines and social media. The search results generated by search engines and the content recommendation provided by social media are hereinafter referred to as ‘result recommendations’.

Search engines are now a fundamental structure in the online information world. Search engines, on the one hand, prevent chaos from the complexity of navigating information; on the other, they practically are in the centre to organise the flow of information and to control the access to knowledge.<sup>58</sup> Anybody who cannot be found via a search engine does not exist: ‘to exist is to be indexed by a search engine’<sup>59</sup>. Search engines connect between content providers and audiences, by selecting relevant content and distributing them to the audience.<sup>60</sup> With this role, search engines can exploit their power to shape people’s attention and perception of the world. Search results provided by search engines can have influence over searchers’ behaviour and have social implications.<sup>61</sup> Therefore, search engines are new powerful gatekeepers who control the degree of diverse content people are exposed to.

According to a Reuter report, despite the direct consumption from the media websites and apps, search engines remain the most important gateways to online content.<sup>62</sup> As seen in Figure 3, the direct access to media websites (32%) remains only slightly ahead of search engines (25%). This result is similar to findings in an Ofcom

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<sup>58</sup> Mark Levene, *An introduction to search engines and Web navigation* (2nd edn, Wiley 2010) 65.

<sup>59</sup> Lucas D. Introna and Helen Nissenbaum, ‘Shaping the Web’ (2000) 16(3) *The Information Society* 169, 171.

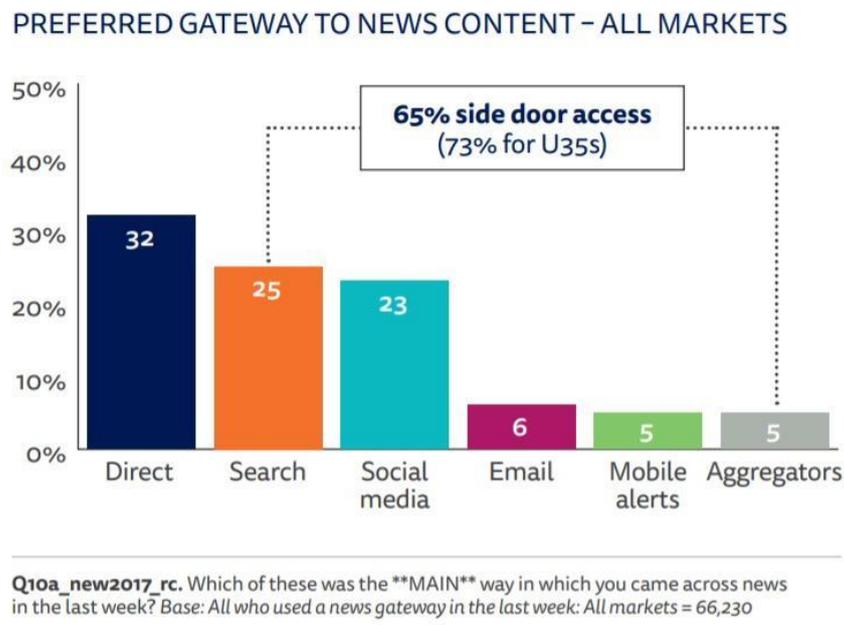
<sup>60</sup> Azi Lev-On, ‘The Democratizing Effects of Search Engine Use’ in Amanda Spink and Michael Zimmer (eds), *Web Search* (Springer 2008) 139.

<sup>61</sup> Min Jiang, ‘The business and politics of search engines’ (2014) 16(2) *NMC* 212, 227.

<sup>62</sup> ‘Reuters Institute Digital News Report 2017’, 14.

report which reported that a majority of Internet users (97%) had used search engines as their main source of online information.<sup>63</sup> It is the most popular source and the only source which used by more than half of adults who go online (see Figure 3). Likewise, Google Search had around 40 million UK visitors in March 2017.<sup>64</sup> Not only be the large number of users but search engines are also considered a trusted source by audiences. Children age 12-15s are turning to Google for ‘true and accurate information’.<sup>65</sup> One in four of the children<sup>66</sup> and one in five of the adults<sup>67</sup> surveyed believe that if certain information is listed by search engines, the results will be unbiased and can be trusted.

Figure 3: Main source of online information: Reuter (above)<sup>68</sup> Ofcom (Below)<sup>69</sup>



<sup>63</sup> Ofcom, ‘Adults’ media use and attitudes report 2017’ (Ofcom, 14 June 2017) 8.

<sup>64</sup> Ofcom, ‘Communications Market Report 2017’ (Ofcom, 3 August 2017) 188.

<sup>65</sup> Ofcom, ‘Children and parents: media use and attitudes report 2016’ (Ofcom, 16 November 2016) 8.

<sup>66</sup> Ofcom, ‘Children and parents: media use and attitudes report 2017’ (Ofcom, 29 November 2017) 13.

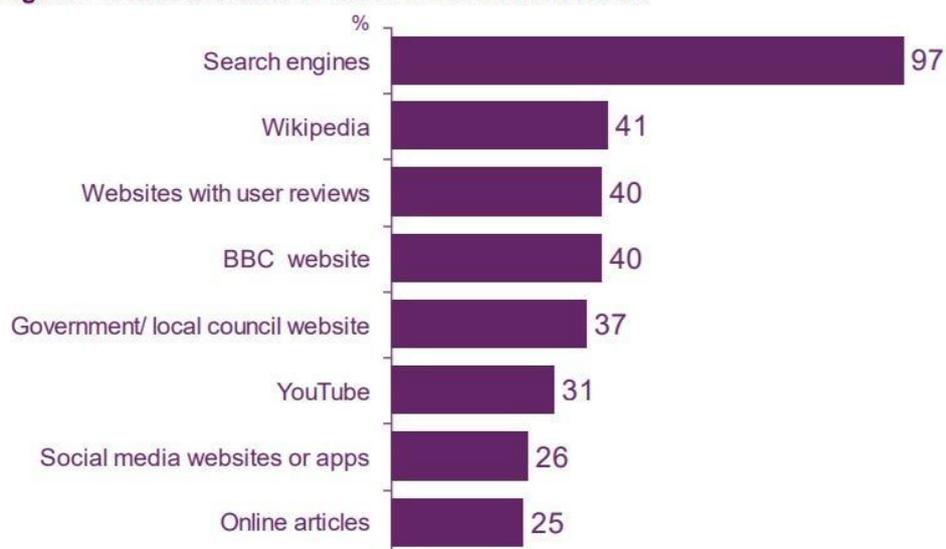
<sup>67</sup> Ofcom, ‘Adults’ media use and attitudes report 2017’ (Ofcom, 14 June 2017) 139.

<sup>68</sup> ‘Reuters Institute Digital News Report 2017’, 14.

<sup>69</sup> Ofcom, ‘Adults’ media use and attitudes report 2017’ (Ofcom, 14 June 2017) 103.

Apart from search engines, social media are becoming increasingly influential sources of news source. Although, Reuter reported that social media is trusted less than traditional media, it can be argued that the cause of doubts comes from political bias and audience polarisation.<sup>70</sup> Even though people express low trust in social media, they in fact continuously consume and share agreeable content from like-mind people on such platforms. Both citizens and political entities increasingly use social media as a source of information about public affairs and as a tool to express their viewpoints. The crucial role of social media can be considered in two aspects: first, the aspect of quantity, e.g. the number of people using social media; and second, the aspect of the impact it has on the everyday life of users and on the way that society is represented at a given point of time.

**Figure 74: Sources used to look for information online**

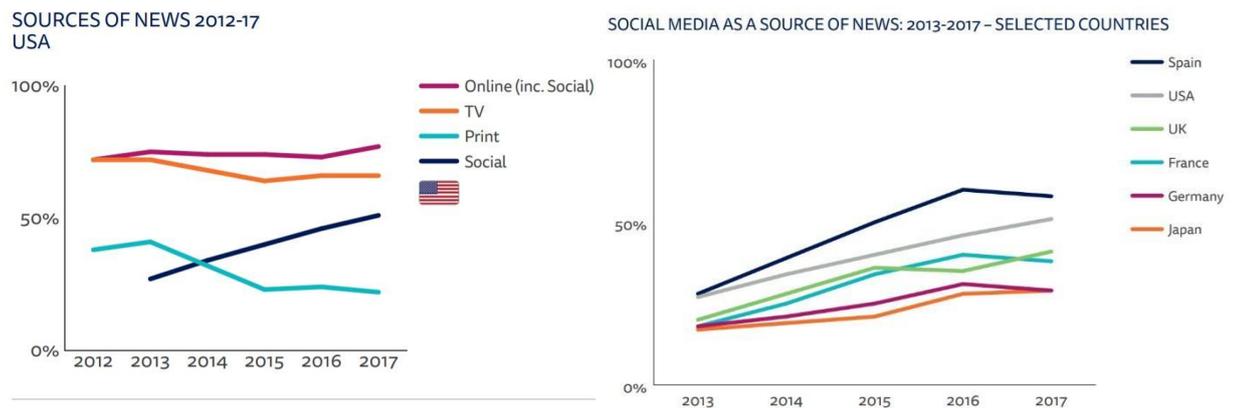


In term of quantity, the growth of news accessed via social media sites like Facebook and Twitter is continuously increasing. Millions of people around the world, regardless of geographical and ideological barriers, utilise social media platforms as gateways to online content (see Figure 3: Reuter). According to Figure 4 (below) from the Reuters Institute report 2017, more than four in ten (41%) of UK audiences get their news via social media while over half (51%) of Americans (51%) now say they uses

<sup>70</sup> ‘Reuters Institute Digital News Report 2017’, 9, 21-22 (‘There is a sense in some countries that feeds are being overwhelmed or polluted by different political agendas’) (‘In the United States, the vast majority of mistrust is generated from the right (Trump supporters and Republicans), because of the media’s perceived ‘liberal agenda’. In the UK, mistrust is more likely to come from the left, due to a sense that the right-wing press is pushing a pro-Brexit and pro-government agenda.’).

social media for news. These percentages increased by 6 points for the UK and 5 points for the US last year.<sup>71</sup> The data also shows that young people express a significant preference for online sources. A third of children aged 18–24s (33%) now say social media are their main source of news which is more than online news sites (31%) and more than TV news and printed newspapers put together (29%)<sup>72</sup> (see Figure 1). This result accords with an Ofcom report which found that social media was the second most popular source of news and news updates for UK children aged 12-15s (56%) (see Figure 5). There has also been a significant increase in the number of Internet users aged 75 and over embracing social media (41% having a social media profile in 2016 compared to 19% in 2015).<sup>73</sup> This phenomenon illustrates high popularity of social media as a new communication and media channel. Thus, there is no other media platform that connects people in such an effective and influential way as social media.

Figure 4: Social media as a source of news: US (left) UK (right)<sup>74</sup>



<sup>71</sup> 'Reuters Institute Digital News Report 2017', 53,10.

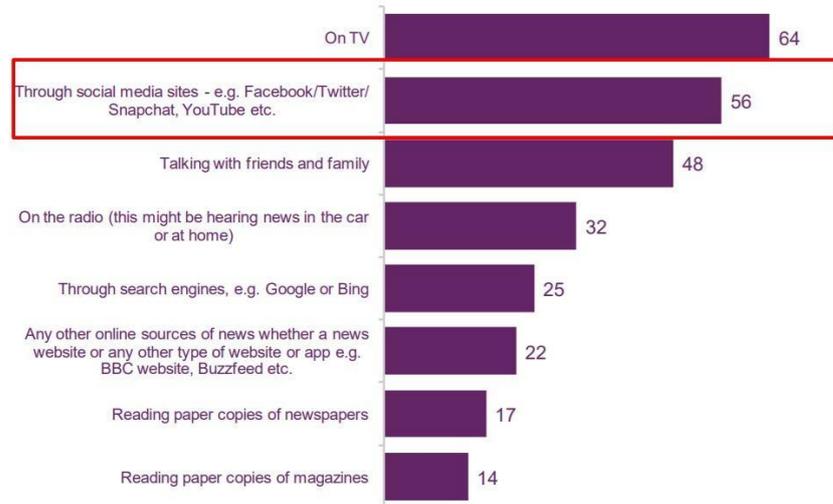
<sup>72</sup> Ibid, 10.

<sup>73</sup> Ofcom, 'Adults' media use and attitudes report 2017' (Ofcom, 14 June 2017) 2.

<sup>74</sup> 'Reuters Institute Digital News Report 2017', 10-11.

Figure 5: Sources of news used by 12-15s<sup>75</sup>

Figure 58: Sources of news updates used by 12-15s interested in any type of news: 2017



As for the impact social media has on people and society, social media as an information source has influenced political activities, social interactions and democratic processes. For example, in the US, social media became a key player in the story of the election since 2008.<sup>76</sup> In 2016, many US citizens received news and campaign information about candidates from social media during the US presidential election: in particular, Donald Trump appears to have benefited from the use of Twitter. In October 2017, social media was exploited as a channel against sexual crime relating to women. After a tweet by actor Alyssa Milano, the hashtag #MeToo became a rallying cry against sexual assault and harassment. Within 24 hours, 4.7 million people around the world engaged in the conversation with over 12 million posts, comments, and reactions. Consequently, the movement has also inspired men to admit inappropriate behaviours by offshoot hashtags such as #IDidThat and #HowIWillChange.<sup>77</sup> Moreover, the role of social media was critical for protesters during the Arab Spring to facilitate the communication between participants, to disseminate information about their activities, and to spread awareness about the ongoing events to the rest of the world.<sup>78</sup> Therefore,

<sup>75</sup> Ofcom, 'Children and parents: media use and attitudes report 2017' (Ofcom, 29 November 2017) 120.  
<sup>76</sup> The Pew Research Center for the People & the Press, 'Social Networking and Online Videos Take Off' (2008) <<http://www.people-press.org/files/legacy-pdf/384.pdf>>.  
<sup>77</sup> Nic Newman, 'Journalism, Media, and Technology Trends and Predictions 2018' (RISJ, 2018) 8-9.  
<sup>78</sup> Fadi Salem and Racha Mourtada, 'Civil Movements' (2011) 1(2) Arab Social Media Report.

social media are now indispensable tools for navigating people's attention to particular aspect of the world.

In conclusion, selection intermediaries are slowly replacing traditional media and rapidly becoming the gatekeepers of our 'information' society. Selection intermediaries represent an essential part of the way in which digital information is made easily accessible. However, they can also become a bottleneck in access to information due to the links structure of the Internet, the scarcity of attention and the overload of information. The fact that a large number of people depend on selection intermediaries to find information raises an issue about to what extent these media platforms provide diverse viewpoints to people. The recommendation results provided by these intermediaries have an effect on the way people consume media content. Therefore, it is important to analyse what is the effect of selection intermediaries on the concept of media plurality. The next chapter will discuss the consequence of the change of the media landscape on the shift of media plurality concerns and will intensively analyse the relationship between selection intermediaries and diversity of exposure.

**Chapter 2**  
**Exposure diversity and the justifications of the regulation of selection**  
**intermediaries**

As discussed in Chapter 1, the media landscape has changed to an environment of information overflowing on the Internet and the emergence of selection intermediaries. This change has raised issues about media plurality. However, in Europe, at least, the fundamental debate about media plurality and selection intermediaries has hardly been seriously discussed in media law and policy. The issues about media plurality on the Internet include: are media plurality concerns an obsolete issue now? If not, which aspect of media plurality would be a concern for media law and policy?, and should selection intermediaries have a role in promoting media plurality? If so, why? In this Thesis, the terms ‘media plurality’ and ‘media diversity’ are used interchangeably. It should be noted that there are distinctions between ‘media plurality’ and ‘media diversity’. While media plurality is commonly used in Europe, media diversity is mainly used in the US. However, it is beyond the scope of this Thesis to differentiate between the two concepts.<sup>1</sup>

This chapter, therefore, argues that the focus of media plurality concerns has moved from diversity of ownership and available content to concern about the diversity of content actually consumed by people. It explores the relevant arguments concerning the concept of exposure diversity and the justification for regulating selection intermediaries. It is divided into two parts. The first part considers the scope and definition of exposure diversity and the reasons why it is important. The second part then analyses the influence of selection intermediaries on the way people are exposed to diverse content and the justification for regulating selection intermediaries in order to achieve diversity in the viewpoints people are exposed to.

**Part I: Exposure diversity**

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<sup>1</sup> For further discussion about the conceptualization of media plurality and diversity *see* Kari Karppinen, *Rethinking Media Pluralism* (FUP 2013) 1-5, 85-89. It should also be noted that ‘plurality’ are distinct from ‘variety’. Variety refers to the amount (number) of media choices available, whereas plurality refers to both on the quantity of choices and the differences among them. Although increasing variety of media may also lead to increase in media plurality, variety alone does not cover the boundary of the various dimension of media plurality as it is discussed here. For further discussions *see* Theodore Glasser, ‘Competition and Diversity among Radio Formats’ (1984) 28(2) *J.Bro.Elec.M* 127.

Part I introduces the principle of exposure diversity. It is divided into three sections. The first section will discuss the reason why the concerns about media plurality have shifted from diversity of ownership and diversity of available content to exposure diversity. The following sections then conceptualise the idea of exposure diversity and its importance in public interests.

1. The shift from diversity from the supply side to diversity on the demand side

Concerns about media plurality are at the heart of media law and policy.<sup>2</sup> The concept of media plurality is based on the fact that media are powerful gatekeepers of public communication. Historically, due to a scarcity resource of analogue spectrum, the broadcasting model in the pre-internet age allowed only the wealthy to own media and produce content. The capacity to speak effectively to a large number of people and influence public opinion was controlled by a few people.<sup>3</sup> The concentration of power and control over the channels of communication lead to concentrated control over content.<sup>4</sup> As a consequence, content made available was concentrated around mainstream preferences and marginal viewpoints were ignored.

Therefore, discussions on how to guarantee media plurality focused on promoting diversity of material sources. Variety of media sources could be achieved by creating media structures which provided a range of different media ownership. Another approach to guarantee media plurality was the encouragement of diversity of content. This approach required media outlets to provide a wide range of opinions which reflected the interests of whole people in society. Thus, in the pre-internet age, media plurality was safeguarded by providing diversity on the supply side of the media market.

However, with the proliferation of information available on the Internet, media plurality concerns have been questioned. As Karppinen stated, '[i]n what sense is it then meaningful to speak of diversity and pluralism when media systems as a whole are characterised more by abundance than scarcity?'.<sup>5</sup>

a. The arrival of the Internet and digital optimists

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<sup>2</sup> See Jan van Cuilenburg and Denis McQuail, 'Media Policy Paradigm Shifts' (2003) 18(2) Eur.J.Com 181.

<sup>3</sup> Stefaan Verhulst, 'Mediation, Mediators and New Intermediaries' in Philip M. Napoli (ed.), *Media Diversity and Localism* (LEA 2007) 117.

<sup>4</sup> Yochai Benkler, *The Wealth of Networks* (YUP 2006) 119-204.

<sup>5</sup> Kari Karppinen, *Rethinking Media Pluralism* (FUP 2013) 104.

In many respects, the Internet media model provides a vast expansion of choices. The abundance of information brings about the end of scarcity and the concerns about the availability of diverse content from different sources have gone forever. Many scholars and policymakers celebrate that the Internet leads to the pluralization of the public discourse.<sup>6</sup> For example, Kellner praises the Internet as a space offering opportunities for marginal voices. He states that:

‘It [the Internet] is constantly astonishing to discover the extensive array of material available, articulating every conceivable point of view and providing news, opinion, and sources of a striking variety and diversity. .... The Internet can send disparate types and sources of information and images instantly throughout the world and is increasingly being used by a variety of oppositional groups.’<sup>7</sup>

Castells argues that the Internet brought a changes from the communication system which centered around mass media (‘characterized by the mass distribution of a one-way message from one to many’) to the new form of communication of ‘the global web of horizontal communication networks that include the multimodal exchange of interactive messages from many to many’.<sup>8</sup> This opens up the unlimited diversity of communication flows.

Consequently, it seems that this new form of communication enables opportunities for citizens to reach diverse media without the need of any regulatory intervention. Therefore, some scholars suggest that the regulation to promote media plurality will no longer be necessary. Negroponte, for example, argues that the cooperation of technology and human nature will bring greater plurality than any laws Congress could make.<sup>9</sup>

However, the conclusion that all concerns about media plurality have been solved is critically misleading. The substantial news sources which influence people are still generated by traditional media entities. Consumption and trust in news media is still

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<sup>6</sup> See Yochai Benkler, *The Wealth of Networks* (YUP 2006); Brian McNair, *Cultural chaos* (Routledge 2006).

<sup>7</sup> Douglas Kellner, ‘The media and the crises of democracy in the age of Bush-2’ (2004) 1(1) *Communication and Critical/Cultural Studies* 29, 51.

<sup>8</sup> Manuel Castells, ‘Communication, power and counter-power in the network society’ (2007) 1(1) *Int.J.Com* 238.

<sup>9</sup> Nicholas Negroponte, *Being Digital* (Vintage Books 1996) 57-58.

concentrated in traditional media due to brand loyalty. This phenomenon seems to cause the two distinct screens: the concentration by traditional mass media as well as new dominant enterprises, and a myriad of small media. Therefore, it does not mean that the concern about diversity on the supply side, which has always been in the centre of media policy, has now been solved or become an obsolete issue. Moreover, although it is true that the Internet brings exposure to a much greater number of views, it reconfigures a more complex problem of how people choose media content diversely.

b. New problem: consume limited information

The ultimate aim to promote diversity of source and available content is to encourage people to consume diverse information and opposite viewpoints. However, the abundance of information on the Internet may not always ensure people are exposed to more diverse content. There are a number of factors which limit the diversity of information presented to people. First, an information-overloaded environment can result in narrowing of the range of people's attention to concentrate on a few sources. This is because a human can only process a limited amount of information.<sup>10</sup> With limited time and attention, people will only rely on selected sources they trust.<sup>11</sup>

The second reason is the unequal accessibility of resources. Although almost infinite information is technically available on the Internet, all of this information is not equally distributed to the public due to technical obstacles.<sup>12</sup> Hindman, for instance, argues that the structure of the Internet which bases on links and intermediaries directs users to a few popular sources.<sup>13</sup> Thus the most visited sites will become more seen while other sites become even more invisible. Another example is 'enclosure'. Basically, 'enclosure' means the restriction of the accessibility to information. It can be in the form of subscription services, disallowing of external links and the lack of interoperability.<sup>14</sup>

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<sup>10</sup> Rabia Polat, 'The Internet and Political Participation' (2005) 20(4) Eur.J.Com 435, 437-438.

<sup>11</sup> For further discussion about the skills and knowledge of people in digital age see Chapter 1 Part II and Chapter 4 Part III.

<sup>12</sup> There are many technical obstacles which results in the unequal accessible of information. It is beyond the scope of this Thesis to discuss all of them. The technical obstacles which are focused in this Thesis are links and selection intermediaries. See Chapter 1 Part I, III and Chapter 4 Part I.

<sup>13</sup> Matthew Hindman, *The Myth of Digital Democracy* (PUP 2008).

<sup>14</sup> Hallvard Moe, 'Dissemination and dialogue in the public sphere' (2008) 30(3) Media, Culture & Society 319; Lincoln Dahlberg, 'The Corporate Colonization of Online Attention and the Marginalization of Critical Communication?' (2005) 29(2) Journal of Communication Inquiry 160.

The third reason is Internet functions such as filtering mechanisms and personalisation will reinforce the tendency of people to select only topics and activities which are relevant to them.<sup>15</sup> This behaviour can result in audience fragmentation and audience polarisation. Audience fragmentation is the segmentation of different groups of audiences using different media which leads to the dissolution of public affairs knowledge or political beliefs into smaller units in a society'.<sup>16</sup> The divide between smaller segments of people can result in being less exposed to unnoticed problems and losing a range of shared common experiences and a unified social agenda for the public as a whole.<sup>17</sup> For Tewksbury and Rittenberg, fragmentation of the information environment has generated the phenomenon of audience polarisation.<sup>18</sup>

Audience polarisation is the tendency of individuals to concentrate their patterns of consumption on a homogenous assortment of media content or outlets and to avoid being exposed to more diverse offerings.<sup>19</sup> While the polarisation of the audience has been differently labelled such as 'echo chambers'<sup>20</sup>, 'sphericules'<sup>21</sup>, 'cyberghettos'<sup>22</sup> and 'cyberbalkanization'<sup>23</sup>, they all point to polarisation into an information cocoon which systematically avoids dissenting voices. Audience polarisation is in harmony with the concept of selective exposure. Selective exposure is the behaviour of seeking out agreeable ideas.<sup>24</sup> Consequently, groups of like-minded people prejudice their existing

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<sup>15</sup> Bruce Bimber, *Information and American Democracy* (CUP 2003); Cass Sunstein, *Republic.com 2.0* (PUP 2009); For further discussion about how to solve this problem see Chapter 4 Part II.

<sup>16</sup> David Tewksbury and Jason Rittenberg, *News on the Internet information and citizenship in the 21st century* (OUP 2012) 120; see also James Webster, 'Beneath the Veneer of Fragmentation' (2005) 55(2) J.Com 366, 367.

<sup>17</sup> Elihu Katz, 'And Deliver Us from Segmentation' (1996) 546 the Annals of the American Academy of Political and Social Science 22, 23.

<sup>18</sup> David Tewksbury and Jason Rittenberg, 'Online news creation and consumption' in Andrew Chadwick and Philip N. Howard (eds.), *Routledge Handbook of Internet Politics* (Routledge 2009) 196.

<sup>19</sup> James Webster and Patricia Phalen, *The Mass Audience* (LEA1997) 110.

<sup>20</sup> Cass Sunstein, *Echo Chambers* (PUP 2001).

<sup>21</sup> Todd Gitlin, 'Public Spheres or public sphericules?' in Tamar Liebes and James Curran (eds.), *Media, ritual, and identity* (Routledge 1998).

<sup>22</sup> Peter Dahlgren, 'The Internet, Public Spheres, and Political Communication' (2005) 22(2) Political Communication 147.

<sup>23</sup> Marshall van Alstyne and Erik Brynjolfsson, 'Global Village or Cyberbalkans?' (2005) (51(6) Management Science 851.

<sup>24</sup> Selective exposure is rooted from cognitive dissonance theory. From the theory of cognitive dissonance, people have a natural motivation to reduce dissonant and uncomfortable clash of conflicting ideas. To reduce the psychological cognitive discomfort, individuals tend to expose themselves to preferred perspectives while screening out challenging opinions. See e.g. Natalie Stroud, 'Selective Exposure Theories' in Kate Kenski and Kathleen Jamieson (eds), *The Oxford Handbook of Political Communication* (OUP 2014); Leon Festinger, *A theory of cognitive dissonance* (Tavistock Publications 1962).

beliefs and reinforced their views to an extreme version after discussing ideas among themselves. As the High-Level Group on Media Freedom and Pluralism comments:

‘Such developments undoubtedly have a potentially negative impact on democracy. Thus we may come to read and hear what we want, and nothing but what we want. ...The concern is people forgetting that alternatives do exist and hence becoming encapsulated in rigid positions that may hinder consensus-building in society.’<sup>25</sup>

There are many pieces of empirical research about selective exposure behaviour and the audience polarisation phenomenon. According to a Reuters report, the proportion of those who look for news ‘that share their point of view’ is remarkable. 23% of the respondents in all countries where the survey was conducted preferred to tune into sources that shared ‘their own point of view’; while only 11.2% of the respondents state that they choose sources which ‘challenge their own point of view’.<sup>26</sup> In the UK, the data show that liberal supporters are more likely to consume news from liberal media; and equally conservative supporters are more likely to consume news from conservative media.<sup>27</sup> Moreover, young audiences are more likely to seek out sources that ‘share their point of view’ (28.7% of those who are between 25 and 35 years) than older adult (20% of those over 55).<sup>28</sup> Therefore, people are likely to interact with like-minded individuals.

The audience polarisation phenomenon does not only occur in Europe and UK. In the US, for example, although its media landscape is different from Europe and UK, the trend is in the same direction of the Reuters report. Results from a Pew Research Center study confirms that there is audience polarisation situation in the US (and it may be even worse than the UK). It found that half of those who consistently conservative named Fox News as their single or main source for news.<sup>29</sup> As for the trusted source, although the consistently liberals voters trusted a wide range of news outlets (28 of 36 news sources listed), the distrustful levels of those distrusted sources were high (e.g. 81% for Fox News).<sup>30</sup> In contrast, the consistently conservative voters draw more distrust than the trust of new sources listed. Besides, seven out of eight outlets which the conservatives trusted

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<sup>25</sup> Vaira Viķe-Freiberga et al., ‘A free and pluralistic media to sustain European democracy’ (Report of the High-Level Group on Media Freedom and Pluralism, January 2013) 27.

<sup>26</sup> Nic Newman, et al., ‘Reuters Institute Digital News Report 2013’, (RISJ, 2013) 14.

<sup>27</sup> Ibid, 39.

<sup>28</sup> Ibid, 107.

<sup>29</sup> Amy Mitchell, et al., ‘Political Polarization and Media Habits’, (Pew Research Center, 2014) 4.

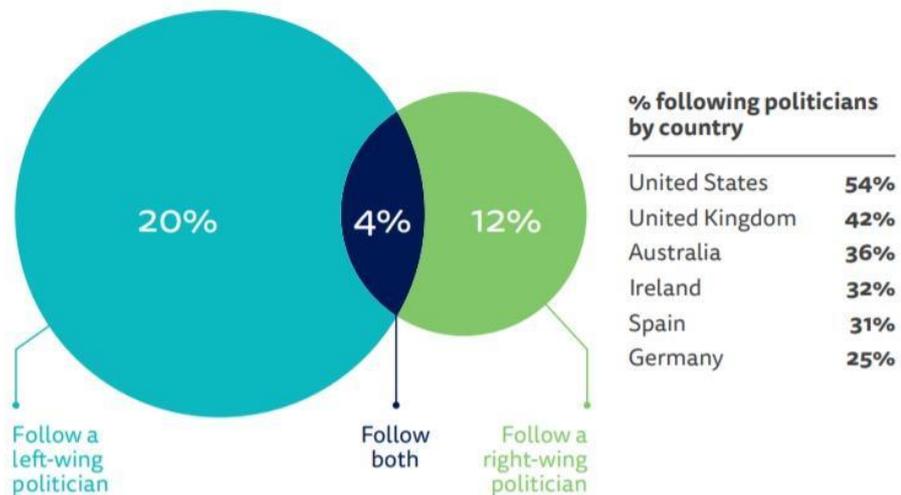
<sup>30</sup> Ibid, 5.

were distrusted by consistently liberal voters.<sup>31</sup> Moreover, the conservatives were likely to see political opinions on social media posts that were in line with their own views; while the liberals were likely to block or defriend someone on social media because of disagreement about political posts.<sup>32</sup> Therefore, this result confirms the existence of audience polarisation and partial web sources.<sup>33</sup>

The audience polarization phenomenon was confirmed in a Reuter report in 2017. According to the report, people follow politicians they agree with on social media and avoid those they do not. In particular, respondents on the left are five times more likely to follow left-leaning politicians on social media than politicians from the right (see Figure 1). This suggests that following politicians on social media may be contributing to greater polarisation.

Figure 1: Polarization in following politicians on social media<sup>34</sup>

#### FOLLOWING POLITICIANS ON SOCIAL MEDIA – SELECTED COUNTRIES



**Q12Gi\_2017.** When using social media for news (e.g. Facebook, Twitter or YouTube) have you followed or subscribed to a channel/page of a politician or political party? Please select all that apply. Base: Used social media for news in the last week: Selected countries = 7171. Note. Figures are based on average of data from US, UK, Australia, Ireland, and Spain.

<sup>31</sup> Ibid, 14-19.

<sup>32</sup> Ibid, 29-30.

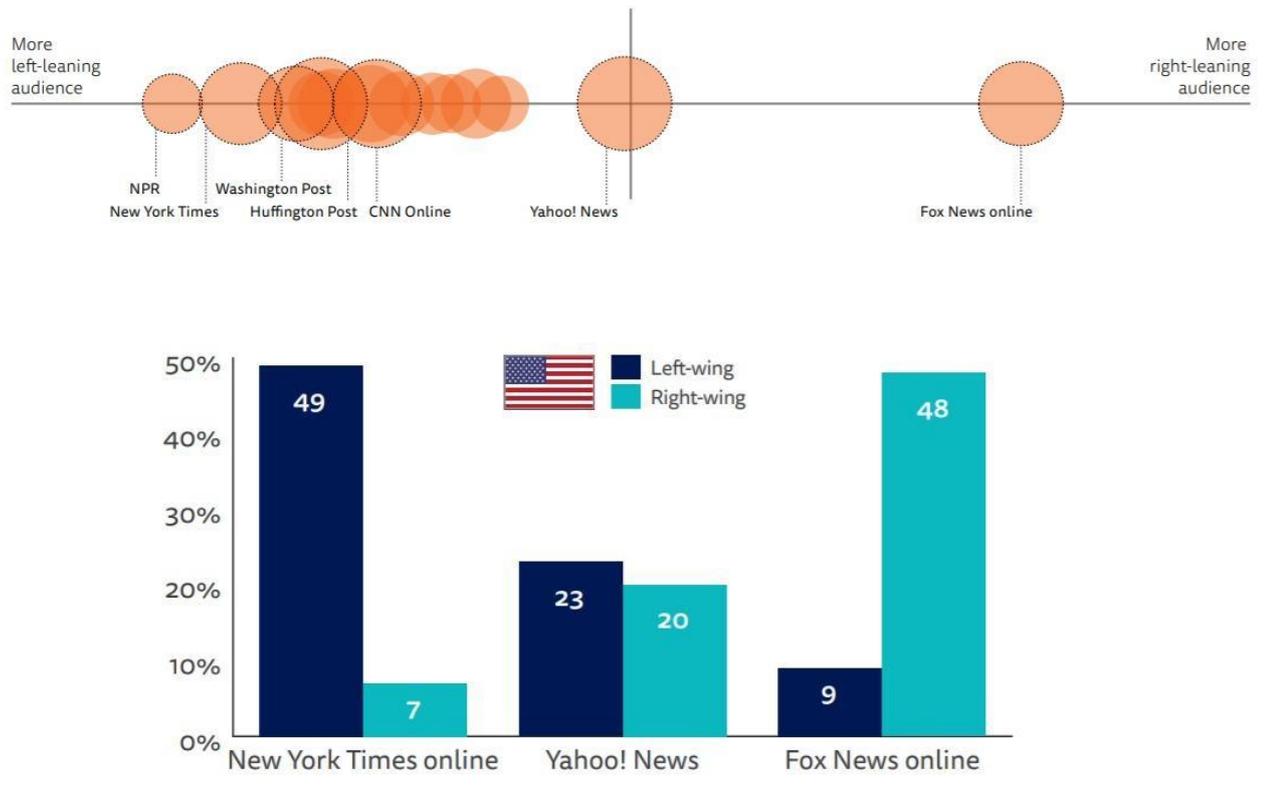
<sup>33</sup> For further empirical research about selective exposure in the environment of abundant information see e.g. Thomas Leeper, 'The informational basis for mass polarization' (2014) 78(1) POQ 27; Jae Lee et al., 'Social Media, Network Heterogeneity, and Opinion Polarization' (2014) 64(4) J.Com 702; Eiri Elvestad et al., 'The Polarized News Audience?' (2014) paper of the Annual Meeting of the American Political Science Association available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2469713](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2469713).

<sup>34</sup> Nic Newman, et al., 'Reuters Institute Digital News Report 2017', (RISJ, 2017) 16.

Also, as illustrated in Figure 2, the US shows the furthest left and furthest right bubbles are further apart. This illustrates a deeply polarised media landscape, which reflects an equally polarised society. The websites of TV networks like New York Times and CNN are viewed far more by people who self-identify as left-wing. By contrast the Fox News and Breitbart websites are mostly accessed by people with right-wing views. Although the figure shows only online sites, polarisation also exists in the print and TV markets. In the UK, Figure 3 similarly shows a picture of polarisation amongst the top online sources although it is less extreme than the US. The Guardian online, with its left-leaning audience, has a score which places it on the left-hand side, whereas the Mail Online is placed on the right. Notably, the data reveal that audience polarization has been increasing quite rapidly in the UK and the US since 2014.<sup>35</sup>

Figure 2: Polarization in US media audiences<sup>36</sup>

### AUDIENCE MAP FOR TOP ONLINE NEWS BRANDS

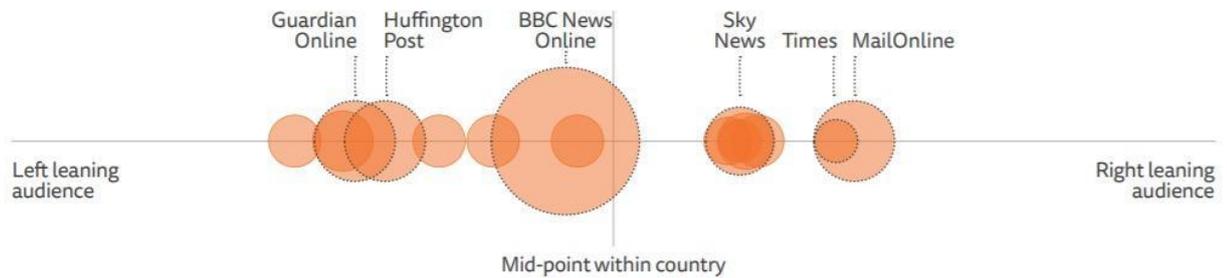


<sup>35</sup> Ibid, 39.

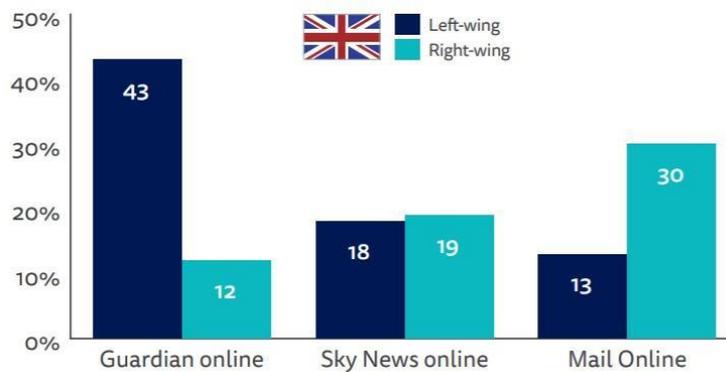
<sup>36</sup> Ibid, 102, 37. (The survey has mapped respondents' political beliefs on a left-right spectrum and combined this with the sources of online news they use. The mid-point represents the mid-point of political opinion of our respondents; the size of each bubble represents volume of consumption for each brand.)

Figure 3: Polarization in UK media audiences<sup>37</sup>

AUDIENCE MAP FOR THE TOP ONLINE NEWS BRANDS – UK\*



POLITICAL BREAKDOWN OF NEWS AUDIENCES FOR SELECTED BRANDS – UK AND USA



In conclusion, it is clear from the empirical studies that the abundance of available information does not guarantee people will expand their media consumption choices. The simplistic assumption that the Internet increases the variety of content people actually consume can be seriously challenged. Communicative abundance alone does not solve the issue of media plurality. The real issue for media plurality now is not the availability of diverse content but the actual accessibility. As Karppinen points out, media plurality should be viewed more broadly in terms of the distribution of communicative power rather than in terms of consumer choices or specific issues such as media ownership.<sup>38</sup> Therefore, more emphasis needs to be put on exposure to different ideas and opinions of various alternatives. In this aspect, Garnham states that ‘we need to take into account both the range of communication option made available ....and the ability of people actually

<sup>37</sup> Ibid, 37-38.

<sup>38</sup> Kari Karppinen, *Rethinking Media Pluralism* (FUP 2013) 123.

to make use of those options’.<sup>39</sup> In other words, the concerns about media plurality have moved to the diversity of actual content exposed to people or ‘exposure diversity’.

## 2. Concept and scope of exposure diversity

The section above has illustrated the shift of media plurality concerns from diversity of ownership and diversity of available content to the diversity of exposure. This section, therefore, will discuss the concept of exposure diversity; including the definition and classification of exposure diversity, and exposure diversity in media policy.

### a. Definition of exposure diversity

Diversity of exposure refers to actual diverse media content and sources that the audience are exposed to. Initially, the notion of exposure diversity is recognised from an empirical perspective. It is derived from one aspect of the media plurality classification by McQuail. He differentiates ‘content as sent’ from ‘content as received’ and the latter ‘identifies a different universe of content than that sent—what the audience actually selects’.<sup>40</sup> According to McQuail, ‘content as received will show a narrower range (thus less diversity) than content as sent...’.<sup>41</sup> In other words, what is being sent is not necessary as what is being consumed.

Napoli develops the idea of ‘content as received’ further by suggesting the concept of ‘exposure diversity’ to be another dimension of media plurality. This additional diversity is distinct from the traditional two components (diversity of source and available content) that have emphasised plurality discourse so far.<sup>42</sup> It is an aspect of media plurality which focuses on the audience side, and it is distinct from source diversity and content diversity which focuses on the supply side. Napoli also emphasises that media policy goals should pave the way ahead to realise the importance of exposure diversity.<sup>43</sup>

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<sup>39</sup> Nicholas Garnham, ‘Amartya Sen’s Capabilities Approach to the Evaluation of Welfare’ in Andrew Calabrese and Jean-Claude Burgelman (eds.), *Communication, Citizenship, and Social policy* (Rowman & Littlefield 1999) 121.

<sup>40</sup> Denis McQuail, *Media performance* (SAGE Publications 1992) 157-158 (McQuail distinguished three aspects of audience-related diversity: ‘channel-audience diversity’, ‘audience diversity’ and ‘content as received’. The aspect of ‘content as received’ is central to the notion of exposure diversity.)

<sup>41</sup> Ibid.

<sup>42</sup> Philip Napoli, ‘Deconstructing the Diversity Principle’ (1999) 49(4) *J.Com* 7, 24-25.

<sup>43</sup> Philip Napoli, ‘Exposure Diversity Reconsidered’ (2011) 1 *J.Inf.Pol* 246.

The aspect of exposure diversity has been expanded by van der Wurff. He discusses that the notions of ‘content as received’ or ‘exposure diversity’ explain ‘the extent to which different programme types are represented in total ...consumption’ but do not reflect ‘the absolute availability (or use) of different programme types’.<sup>44</sup> The content people actually choose is the one which actually available offering to them. Therefore, van der Wurff provides an additional dimension of exposure diversity: ‘diversity of choice’ which is ‘the absolute amount of different programme types that viewers can choose from’.<sup>45</sup>

Helberger supports Wurff’s idea that this aspect of exposure diversity is important especially when concerning the obstacles of actual exposure in reality; such as business models, new intermediaries, the terms and conditions, and the technical design of Internet services.<sup>46</sup> For Helberger, diversity of choice means a chance for people to consider possible alternatives. In other words, the concerns of exposure diversity are about the process of making choices.<sup>47</sup> Therefore, from the exposure diversity point of view, the questions are to what extent do people choose to consume a wide range of political and social views or different sources? What are the factors which affect the diversity of available content to actually reach audience and result in exposure diversity? And, how can people realistically access diverse media content?

#### b. Classification of exposure diversity

Exposure diversity can be classified by many perspectives. For example, Napoli has classified exposure diversity as being ‘horizontal’ and ‘vertical’ for the purpose of empirical assessment. Horizontal exposure diversity focuses on ‘the distribution of audiences across all available content options’ which relates to the concept of audience fragmentation; vertical exposure diversity refers to ‘the diversity of content consumption within individual audiences’ which relates to the concept of audience polarisation.<sup>48</sup> Besides, exposure diversity can be divided as ‘exposure to external diversity’ and ‘exposure to internal diversity’. The former promotes exposure diversity in the form of

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<sup>44</sup> Richard van der Wurff, ‘Supplying and Viewing Diversity’ (2004) 19(2) *European Journal of Communication* 215, 217.

<sup>45</sup> *Ibid.*

<sup>46</sup> Natali Helberger, ‘Media pluralism policies from the user perspective’ in Peggy Valcke et al. (eds), *Media pluralism and diversity* (Palgrave Macmillan 2016) 325, 327.

<sup>47</sup> Natali Helberger, ‘Exposure diversity as a policy goal’ (2012) 4(1) *J.M.L.* 65.

<sup>48</sup> Philip Napoli, ‘Deconstructing the Diversity Principle’ (1999) 49(4) *J.Com* 7, 26.

consumption from a diverse choice of outlets from different providers; whereas the latter refers to the diversity of viewpoints within a few quality channels exposed to the audience.<sup>49</sup>

For the purpose of this thesis, the classification of exposure diversity, as inspired by Helberger's works<sup>50</sup>, is on the aspect of regarding exposure diversity as a means to achieve different media policy goals. In this view, exposure diversity is not seen in isolation as valuable in itself, rather it relates to the objectives which media policies are supposed to serve.<sup>51</sup> Therefore, this section will present three different conceptualizations of exposure diversity as a policy goal: to enlighten people, contribute to democratic debate, and promote personal autonomy.

The enlightenment of people can refer to discovering truth, wise decision-making and understanding the difference between people. In order to do so, people need perfect or near-perfect information. Seen in this light, exposure diversity means 'discovering the difference'. The role of exposure diversity in this context is to increase people's awareness of divergent views, cultures, and opinions. It also sharpens people's ability to discover the difference and critically evaluate possible alternatives. Besides, exposure diversity can be seen as a means of 'promoting surprising or serendipitous encounters'.<sup>52</sup> Serendipity<sup>53</sup> can break established routines and spark interest in investigating the matter further which lead people to arrive at new insights.

From the perspective of contributing to democracy, exposure diversity refers to 'the openness to diverse speakers or media outlets'. In other words, it supports and enlarges the opportunities for minor voices to create space for the public attention. Central to this conception could be a diverse forum reflecting the heterogeneous interests in society that particularly contribute to active participation and democratic deliberation. Moreover, one could argue that a role of exposure diversity could be 'facilitating comparison' which is an important element of engagement with diverse content and

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<sup>49</sup> J.M. Breemen et al., 'On the Regulator's Plate' (2011) 1 J.Inf.Pol 370, 373.

<sup>50</sup> Natali Helberger, 'Diversity by design' (2011) 1 J.Inf.Pol 441; See also Natali Helberger, 'Diversity label' (2011) 1 J.Inf.Pol 337.

<sup>51</sup> See Part I section 3.

<sup>52</sup> Natali Helberger, 'Diversity by design' (2011) 1 J.Inf.Pol 441, 453-454.

<sup>53</sup> The word was coined by Horace Walpole as "[...] making discoveries, by accidents and sagacity, of things which they were not in quest for [...]". (See Horace Walpole, W. S. Lewis, and W. S. Lewis, *The Yale Edition of Horace Walpole's Correspondence* (YUP 1937-1983))

democratic debate. As Meiklejohn has commented in the context of voting: ‘Both facts and interests must be given in such a way that all the alternative lines of action can be wisely measured in relation to one another’.<sup>54</sup> As such, exposure diversity should be in a form of information that allows for comparison.

While the previous two conceptualizations of exposure diversity emphasise public interest considerations, another approach would focus on the individual, with personal autonomy at the centre. For the autonomous conception, exposure diversity enables individuals to realise their personal freedom of choice and to encourage self-fulfilment through the diverse information presented to them. Therefore, no one other than the individual themselves should be entitled to determine what content to consume. In this regard, exposure diversity is ‘the choice to choose freely’. The only assessment of the diversity of information exposed to the individual is whether they are sufficient to contribute personal autonomy.

To conclude, exposure diversity has five main aspects, i.e. (i) discovering the difference, (ii) exposure to diverse media outlets/speakers, (iii) facilitating comparison, (iv) promoting serendipity, and (v) the choice to choose freely from a sufficient variety of content exposed to the individual. It should be noted that these conceptualizations are not mutually exclusive, but they can intersect with each other. This classification will be used as the benchmark for the discussion of creating a new regulatory regime to achieve exposure diversity in Chapter 4.

### c. Exposure diversity and media policy

Exposure diversity has traditionally been neglected and placed at the margin of media policy debates although it is crucial as source or content diversity. There are many reasons for this.

First, the traditional assumption underlying media policy is that increasing diversity of sources will lead to an increase in content diversity.<sup>55</sup> Furthermore, it has

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<sup>54</sup> See e.g. Alexander Meiklejohn, *Free Speech and Its Relation to Self-Government* (Harpel and Brothers, 1948).

<sup>55</sup> E.g. United Kingdom, Department of National Heritage, ‘Media Ownership: The Government’s Proposals (Green Paper)’ (1995); CoE, Steering Committee on the Mass Media, ‘Report on Media Pluralism in the Digital Environment’ (2000); However, the presumption about the relationship between source diversity and content diversity are questioned and challenged. For further discussion see e.g. Mara Einstein, *Media Diversity* (LEA 2004); Philip M. Napoli, ‘Deconstructing the Diversity Principle’ (1999) 49(4) J.Com 7.

often been assumed that promoting diversity of available content will automatically result in a greater diversity of content consumed by people.<sup>56</sup> However, as discussed in the previous section, diversity of available content and exposure diversity are two different things and do not always coincide. Besides, the overload of sources and available content can negatively affect people to narrow their attention and to concentrate around a few selected sources. As McQuail observed, although diversity of available content is a necessary precondition for people to consume diverse content, diverse supplied content on its own cannot secure diversity of actual content exposed to people.<sup>57</sup>

The second reason is the question whether exposure diversity is beyond the bounds of media policy? Some have stressed that the issues about exposure diversity are irrelevant from a policy perspective; thus, it is not within regulatory concerns with how people navigate content offering to them.<sup>58</sup> Another reason is that any forms of involvement with exposure diversity are considered on a sensitive ground. The law cannot force people to choose media content diversely or consume certain content. Such interventions conflict with individual fundamental freedoms.<sup>59</sup> The last reason is how the concept should be applied to be possible concrete measures? While precise legislation such as numbers of thresholds to media ownership or exact quotas for certain can be provided for content source and content diversity, it is difficult to set precise policy goals in the area of exposure diversity.

However, as Valcke argues, there are undoubtedly positive roles for the law to create the conditions which encourage people to exercise their freedom to effectively expose themselves to diverse content without infringing individual personal rights.<sup>60</sup> This thesis, therefore, asserts that exposure diversity has the public interest values which should be under media policy concerns. Besides, the possible concrete measure to promote exposure diversity without conflicting with the fundamental freedom of people is the regulation of selection intermediaries to assist people to view diverse content. The justification that exposure diversity is within media policy concerns and how to achieve

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<sup>56</sup> Philip Napoli, 'Exposure Diversity Reconsidered' (2011) 1 J.Inf.Pol 246, 248.

<sup>57</sup> Denis McQuail, *Media performance* (SAGE Publications 1992) 157.

<sup>58</sup> Robert Entman and Steven Wildman, 'Reconciling economic and non-economic perspectives on media policy' (1992) 42(1) J.Com 5.

<sup>59</sup> Philip Napoli, 'Rethinking Program Diversity Assessment' (1997) 10(4) Journal of Media Economics 59, 66.

<sup>60</sup> Peggy Valcke, 'Looking for the users in media pluralism regulation' (2011) 1 J.Inf.Pol 287, 303.

exposure diversity will be discussed in the following parts of this chapter and in Chapter 4.

### 3. Exposure diversity and the public interests

This section examines the reasons why media law and policy should be concerned about exposure diversity. It explores the importance of exposure diversity in the public interests which are freedom of speech, democratic value and personal autonomy. First, it analyses the importance of exposure diversity to encourage freedom of speech. Then, the relation between exposure diversity and democracy value will be analysed. Lastly, this section explores the relation between exposure diversity and personal autonomy.

#### a. Exposure diversity and freedom of speech

The analysis of the relation between exposure diversity and freedom of speech is comprised of two aspects. The first aspect will discuss how exposure diversity supports the theoretical justifications underlying freedom of speech. The analysis in the second aspect concerns how exposure diversity strengthens the interest of free speech involved speakers and audiences.

#### i. Exposure diversity supports the justifications for freedom of expression

There are three theoretical arguments underlying the justifications of freedom of expression: the argument from truth, the argument from autonomy or self-fulfilment and the argument from democracy. These justifications give the meaning to free speech because speech is not valued for its own sake but for leading to other desirable outcomes. Therefore, to understand the relation between free speech and exposure diversity, these justifications should be referred to. The discussion of how exposure diversity encourages free speech to achieve these justifications are presented here.

#### 1) The argument from discovering of truth

One historical justification for freedom of speech has been based on its importance as an instrument to the discovery of truth. The most famous explanation of this argument went back to the work of John Mill's *On liberty*.<sup>61</sup> Mill expressed that:

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<sup>61</sup> John Stuart Mill, *On Liberty* (J W Parker and Son, 1859).

‘[...] the peculiar evil of silencing an opinion is, that it is robbing the human race; [...]; those who dissent from the opinion still more than those who hold it. If the opinion is right they are deprived of the opportunity of exchanging error for truth: if wrong, they lose, what is almost as great a benefit, the clearer perception and livelier expression of truth produced by its collision with error.’<sup>62</sup>

For this argument, freedom of expression is the best way to ensure the discovery of truth since truth emerges from discussion and debate between different viewpoints. Therefore, the restriction of free speech prevents society from reaching accurate facts and valuable opinions.<sup>63</sup> For free speech to effectively lead to the truth, free and uninhibited exposure to diverse information is necessary for eliminating misconceptions of fact and value. The notion that exposure diversity encourages free speech to achieve discovering of truth relates to the marketplace of idea theory. As Justice Holmes, the dissenting judge, proposed in *Abrams v US*:

‘The best test of truth is the power of the thought to get itself accepted in the competition of the market.’<sup>64</sup>

In the marketplace of ideas, different points of view compete to most convincingly reach participants in the debate. The truth would emerge as the result of the public confrontation of free trade in ideas and intellectual competition.<sup>65</sup> Although the marketplace of ideas theory is usually applied to the expression of opinion, it can also well be used to support exposure diversity to discover the truth. This is because the possession of various information is a prerequisite for individuals to utilise the competition of different viewpoints to reach the truth. As a metaphor, the marketplace of ideas simply stresses the need for people to be exposed to diverse ideas for information

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<sup>62</sup> Ibid.

<sup>63</sup> The justification from discovering of truth is frequently criticised by a number versions of argument. For example, the argument from truth are resting on naively optimistic view regarding overvaluation of human intellect. It is also questionable that free discussion necessarily leads to the acceptance of truth. However, on its own the justification from discovering of truth is one of the common argument to justify free speech. For further discussions see Eric Barendt, *Freedom of speech* (OUP 2005) 7-13; Larry Alexander, *Is there a right of freedom of expression?* (CUP 2005) 128-130.

<sup>64</sup> *Abrams v. United States*, 250 US 616 (1919).

<sup>65</sup> Joan Barata, ‘The Different Concepts of Free Expression and its Link with Democracy, the Public Sphere and Other Concepts’ in Monroe E. Price et al. (eds.), *Routledge Handbook of Media Law* (Routledge 2013) 125, 128.

to be exchanged and evaluated. Therefore, exposure diversity is an important factor for encouraging freedom of speech to achieve ‘discovering of truth’ justification.

## 2) The argument from self-fulfilment

Whereas the argument from discovering of truth lies on a common good, the argument from self-fulfilment places on the fundamental value of the individual. This second justification of free speech recognises that freedom of speech is necessary to enable human development. In particular, the ability of people to develop their capacity is guaranteed by exercising free speech to obtain knowledge and transmit expression of ideas, thoughts or sentiments.<sup>66</sup> Besides, a right to express their beliefs and attitude can be recognised as an individual communicative conduct which reflects ‘what it is to be human’.<sup>67</sup> Therefore, the suppression of what people say/write or hear/read should be considered as inadequate because it inhibits the main element of the contribution to individual self-determination and personality.<sup>68</sup> As expressed in *Handyside v UK*:

‘[f]reedom of expression constitutes [...] one of the basic conditions for [...] the development of every man.’<sup>69</sup>

This justification of free speech to achieve self-fulfilment takes exposure diversity as the fundamental point. Individuals cannot develop morally and intellectually unless free speech is exploited by individuals to expose themselves to various viewpoints and ideas. The diversity of information exposed to listeners enhances their autonomy because it is the precondition of people’s ability to create their individual growth. Therefore, exposure diversity is the need for free speech to accomplish the self-fulfilment of the individual.

## 3) The argument from democracy

This justification regards freedom of speech as a fundamental element for people to control self-governance and ensure the accountability of public powers in a democratic society. Expression and communication in society is an instrument to facilitate public deliberation, the circulation of political discussion and the process of

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<sup>66</sup> Frederick Schauer, *Free Speech: a philosophical inquiry* (CUP, 1983) 47-49.

<sup>67</sup> Eric Barendt, *Freedom of speech* (OUP 2005) 13.

<sup>68</sup> Thomas Scanlon, ‘Freedom of Expression and Categories of Expression’ (1979) 40 *University of Pittsburgh Law Review* 519.

<sup>69</sup> *Handyside v. the United Kingdom*, (5493/72) [1976].

collective decision in an important social issue.<sup>70</sup> Besides, in a representative democracy, free speech is crucial for the voting decisions because it makes the elected know the opinions of citizens, and vice versa.

The argument from democracy is primarily associated with the American philosopher Meiklejohn. He argued that open debate is essential because a reasonable understanding of political issues is a pre-requirement for citizens to effectively participate in a democracy.<sup>71</sup> As democracy rests upon the idea of citizen's sophisticated participation, the justification of free speech to encourage democracy encompasses the need to expose citizens to a wide variety of viewpoints and to provide people with enough diverse information. Therefore, freedom of speech and the right to receive information has its meaning to inform public and form an opinion about matters of public concerns when exposure diversity is guaranteed.

The judgements of the ECtHR also illustrate the justification of free speech to support democracy. For example, in *Lingens v Austria*, the court stated:

‘the Court has to recall that freedom of expression...constitutes one of the essential foundations of a democratic society and one of the basic conditions for its progress ...’<sup>72</sup>

Moreover, the ECtHR has also demonstrated that free speech not only applied to ‘‘information’ or ‘ideas’ that are favourably received or regarded as inoffensive or as a matter of indifference, but also to those that offend, shock or disturb the State or any sector of the population’.<sup>73</sup> Democracy is not only based on public debate and expression but includes a plurality of diverging view to be accommodated: ‘Such are the demands of that pluralism, tolerance and broadmindedness without which there is no ‘democratic

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<sup>70</sup> Joris van Hoboken, *Search engine freedom* (Kluwer Law International, 2012) 59.

<sup>71</sup> See e.g. Alexander Meiklejohn, *Free Speech and Its Relation to Self-Government* (Harpel and Brothers, 1948).

<sup>72</sup> *Lingens v Austria* (9815/82) [1986] [41]; See also *Özgür Gündem v Turkey* (23144/93) [2000] [43] (‘...freedom of expression as one of the preconditions for a functioning democracy.’); *Manole and others v Moldova* (13936/02) ([2009] [95] (‘Democracy thrives on freedom of expression’); *Guja v Moldova* (14277/04) [2008] [91] (‘open discussion of topics of public concern is essential to democracy and regard must be had to the great importance of not discouraging members of the public from voicing their opinions on such matters’)

<sup>73</sup> *Handyside v. the United Kingdom; Lingens v Austria*.

society’’<sup>74</sup>. Therefore, this justification for free speech has a close link to exposure diversity in order to protect all form of expression to be noticed in public attention.

ii. Exposure diversity and free speech interests

Apart from the justification of freedom of speech, another approach to analyse the importance of exposure diversity to encourage free speech is the exploration of the free speech’s interests of people involved. The interests of free speech can be considered from the perspective of speaker and audience. This section will discuss the relation between exposure diversity and freedom of expression from the aspect of the interests of people involved and to what extent exposure diversity strengthens these interests.

1) Speakers’ interests of free speech

The free speech interests of speakers seem to be obvious. The exact interests of speakers, as Scanlon expressed, is that they are able to disseminate their thought and arguments to the attention of wide audiences.<sup>75</sup> This ability to express and communicate also benefits speakers by linking to self-development and the participation in a democratic process as mentioned above. Therefore, freedom of speech has traditionally been protected as a negative right which prevents a state from censorship or causing chilling effect due to the fear of reprisal.<sup>76</sup> However, it does not mean that free speech does not have an aspect of positive right which requires the state to ensure people’s ability to speak effectively.

If we consider freedom of speech from the aspect of communicative social activity, speech has its meaning when communication is established between speakers and audience.<sup>77</sup> Therefore, the interest of speakers in free speech lies in the ability to speak to someone else (the ability to communicate) not in speaking without being heard by no one. Particularly, this consideration should be concerned in the Internet environment. The wealth of choice makes it difficult for an individual speaker to find its way to interested audience’s attention. From the speaker’s perspective, the chances of

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<sup>74</sup> Ibid.

<sup>75</sup> Thomas Scanlon, ‘Freedom of Expression and Categories of Expression’ (1979) 40 *University of Pittsburgh Law Review* 519, 521.

<sup>76</sup> Richard moon, *The Constitutional Protection of Freedom of Expression* (University of Toronto Press, 2000) 7.

<sup>77</sup> Ibid.

being heard or reaching a receptive audience are exacerbated than the time of limited choices available.

This recognition suggests that the protection of free speech's interest lies in each of the steps of establishing and maintaining the communicative relationship.<sup>78</sup> Therefore, in the age of the Internet, the protected interests of speakers under the right to freedom of expression should also encompass the right to reach the audiences. As Chandler states 'the theories of free speech all depend fundamentally on communication...As a result, it is not enough simply to be able to speak or to receive information...This includes the processes of reaching an audience or finding a speaker'.<sup>79</sup> Free speech does not encompass only the right to speak and the right to hear, but also the right to the unimpeded ability to reach an audience (i.e. the right to be free of the imposition of discriminatory filters imposed by selection intermediaries). The right to reach an audience focuses on the effects of selection intermediaries who select certain speech for preference, sometimes effectively silencing disfavored speakers.<sup>80</sup> This must include the ability to hear the communicative overtures launched by others in the society, as well as the ability to launch one's own communicative overtures to an audience. Chandler suggests the implications of this right: for instance, selection intermediaries should not remove websites from the database selection intermediaries unless required by law to do so. Any removal of any website and the reason for the removal should then be made known within a publicly accessible list.<sup>81</sup>

It should be noted that whereas the right to reach the audience deters selection intermediaries from blocking or discriminating against a speaker on grounds that listeners would not have selected; exposure diversity, on the other hand, does not merely include the right to reach the audience (i.e. the right to be free from the unimpeded ability to reach the listener) but also impose that selection intermediaries ensure availability of diverse information.

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<sup>78</sup> Frederick Schauer, *Free Speech: a philosophical inquiry* (CUP, 1983) 47-49.

<sup>79</sup> Jennifer Chandler, 'A Right to Reach an Audience' (2007) 35(3) Hofstra Law Review 1095.

<sup>80</sup> Ibid.

<sup>81</sup> Ibid, 1117.

The right to reach the audience correlates with exposure diversity. In particular, the right to reach the audience can be strengthened by exposure diversity. This is because the encouragement of people to consume diverse content means that speakers have more chance to expose their speech in the attention of the audience. Whereas it is impossible for the audience to be bound to listen to any speakers, exposure diversity is an indirect way for speakers to effectively disseminate their thought and arguments to the attention of wide audiences. Therefore, the need to support speaker's interest to reach the audience can be considered as the argument to promote exposure diversity.

## 2) Audience's interests of free speech

Schauer argued that audiences are the primary concern of free speech interest and free speech of speakers are recognised in order to safeguard the interest of the audience.<sup>82</sup> The interest of people as audience under the right to freedom of expression can be characterised as the freedom to inform themselves.<sup>83</sup> This is because one cannot make use of free speech unless they sufficiently receive information in order to contribute ideas and participate in public discourse.<sup>84</sup> Ultimately, it is the fundamental interest of people to become an informed citizen. Therefore, the benefits from the free availability of ideas and information belong to audiences in order to enable them to have enough materials to make informed choices.<sup>85</sup>

The interest of the audience in free speech are covered in Article 10 of the ECHR.<sup>86</sup> According to Article 10, truly freedom of expression is not only about the right to express an opinion but also includes freedom to receive information. To achieve this notion, it is essential to establish the environment where diverse and different points of views expose to audiences. This can also be seen in the EU Charter which respects media

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<sup>82</sup> Frederick Schauer, *Free Speech: a philosophical inquiry* (CUP, 1983) 158-160.

<sup>83</sup> In the US, Supreme Court has developed the right to receive information as a necessary corollary to the right of free speech or as a peripheral or penumbral right. Without those peripheral rights, free speech would be less secure. (See e.g. *Lamont v. Postmaster General*; *Griswold v. Connecticut*; *Martin v. Struther*); further discuss see Susan Mart, 'The Right to Receive Information' (2003) 2 Law Library Journal 175; Jamie Kennedy, 'The Right to Receive Information' (2005) 35(2) Seton Hall Law Review 789; Thomas Emerson, 'Legal Foundations of the Right to Know' (1976) 1976(1) Washington University Law Quarterly 1.

<sup>84</sup> Peter Bayne, 'Freedom of information and political free speech' in Tom Campbell and Wojciech Sadurski (eds), *Freedom of communication* (Dartmouth, 1994) 199, 204.

<sup>85</sup> Jonathan Gilmore, 'Expression as Realization' (2011) 30(5) Law and Philosophy 517, 520-523.

<sup>86</sup> Article 10(1) of the ECHR ('everyone has the right to freedom of expression. This right shall include freedom to hold opinions and to receive and impart information and ideas'); the similar contexts are expressed in Article 19 of the United Nations Universal Declaration of Human Rights.

plurality under the protection of freedom of expression and information.<sup>87</sup> In the concern of audience polarisation, media plurality should refer to exposure diversity which is the process of people to be exposed to diverse information, ideas and resources in the public networked information environment. Exposure diversity assists audience to be well-informed citizens by increasing their knowledge and encountering opposite viewpoints. Therefore, without exposure diversity, free speech's interest of audience would not be existed.

#### b. Exposure diversity and democratic discourse

Apart from its importance on freedom of speech, exposure diversity also has value on democratic society. This section, therefore, examines the democratic values of exposure diversity as a justification for media policy's concerns. Since there are many distinct theories of democracy, this section will first provide the aspect of exposure diversity in the different theories of democracy. Then, it will summarise the value of exposure diversity which underlying all theories of democracy.

##### i. Theories of democracy and exposure diversity

This section addresses the notion of exposure diversity from the perspective of democratic theory. A choice among possible theories may be infinite, three approaches which have influenced academic and political debates on media and democracy are considered in this section.<sup>88</sup> They are an elite democracy, liberal democracy and deliberative democracy. This section will illustrate that exposure diversity is a crucial element underlying in all theories of democracy.

##### 1) Elite democracy

The notion of elite democracy is that the government must be governed by experts and specialists who understand the technical complexity of problems in the modern world.<sup>89</sup> Under this account, most people are not capable of understanding the economic analysis, social problems and the details of political decisions that government

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<sup>87</sup> Article 11 of the Charter of Fundamental Rights of the European Union.

<sup>88</sup> These three theories of democracy are presented as ideal models, not as descriptions of the views of any particular theorist. They may be enough to capture most people's view of the different normative rationale of democracy.

<sup>89</sup> See e.g. Walter Lippmann, *Public Opinion* (Start Publishing LLC, 2015); Vincent Blasi, 'The Checking Value in First Amendment Theory' (1977) 2(3) American Bar Foundation Research Journal 521.

have to respond routinely.<sup>90</sup> As a result, the participation of people in a democracy is limited through the power of deciding a vote in an election in order to accept or refuse elite competitors who are to rule them. In other words, elite democracy can be seen as a competition between rival groups of political leaders that chosen through an election.<sup>91</sup> The democratic election is a structural means to remove less effective ruler with the one better and to create incentives for better performance. It also prevents or limits the level of overt corruption and tyranny.<sup>92</sup>

Given the limited role of citizens, the elitist democracy protects the right to vote and points to free discussion to achieve a formal understanding of different electoral choices. To fulfil this mission, elite democracy requires exposure diversity, in particular, the process in which people consume diverse opinions from every candidate and criticisms from different groups in society. The free discussions from various viewpoints cannot contribute people to understand electoral choice unless the discussions are put before people's acknowledgement.

Besides, exposure diversity provides political equality for a candidate to have an equal opportunity to influence citizen in electoral competition. In this context, the consumption of diverse information is a means to sufficiently widely distribute public debate to ensure that 'no single voice is very secure in the government'.<sup>93</sup> Democratic election and choices to vote have a meaning only when there are equal competition and comparison of distinct political competitors presented to people.

Another consideration is that exposure diversity supports elite democratic election by securing the remedy of corruption and incompetent leader. Only listen to the favourable political group can possibly lead the abuse of power and inefficient performance to be unchecked. In contrast, exposure to different viewpoints of opposite groups promotes the rotation of government which deters corruption and creates incentives for a proper performance. Consequently, such an approach could call for voices from different sources presented to citizens for them to fully participate in the democratic election.

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<sup>90</sup> David Held, *Models of Democracy* (Polity Press, 2006) 179.

<sup>91</sup> Joseph Schumpeter, *Capitalism, Socialism and Democracy* (Allen and Unwin, 1976) 272.

<sup>92</sup> Edwin Baker, *Media, Market and Democracy* (CUP, 2002) 130-132.

<sup>93</sup> Jacob Rowbottom, *Democracy Distorted* (CUP, 2010) 14.

## 2) Liberal democracy

Liberal democracy acknowledges that each individual or social group has their own interests which are different from each other. All of us has their own perception of what is good for our life based on what we believe and our position in society and these various interests always conflict with those of the others.<sup>94</sup> Therefore, liberal democracy accepts that the conceptions of good cannot be compromised to any single value.<sup>95</sup> Since there is no right answer to the question of the common good, citizens do not have to justify or give reasons for their choices.<sup>96</sup> From the liberal democracy aspect, conflicts among interests and views of value are fruitful and necessary for human progress. Rawls also pointed out to support this argument that the recognition of disagreement and the clash of incompatible opinions are an enduring feature of contemporary society and are inherently positive to a political process.<sup>97</sup> Liberal democracy, therefore, praises the value of freedom of choice.

Exposure diversity is an important element of liberal democracy. This is because the situation which people restricts themselves to concentrate around their group's views are a problem according to the liberal view. Although liberal democracy respects different interests and opinions, it does not mean that each interest only acts separately in their group. In contrast, liberal democratic society requires the debate and competition between conflicts among incompatible views. Citizens must be aware of different opinions and options in order to be the judge of their own interests. Therefore, the consumption of diverse information is a prerequisite for people to have the ability to choose freely and to develop the independence of mind or autonomous rationality.

The conceptual framework of liberal democracy can be understood through the metaphor of the marketplace of ideas. Under this approach, the liberal democratic process can be seen as the leverage and bargaining of different interests in society in order to pressure or influence the generation of political order.<sup>98</sup> Citizens gather into groups presenting particular interests and convince others to support their political interests. This

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<sup>94</sup> Edwin Baker, *Media, Market and Democracy* (CUP, 2002) 136-137.

<sup>95</sup> Isaiah Berlin, *Four Essays on Liberty* (OUP 1969) 167-169.

<sup>96</sup> Amy Gutmann and Dennis Thompson, *Why Deliberative Democracy?* (PUP 2004) 15.

<sup>97</sup> John Rawls, *Political liberalism* (CoUP 2005) xvi; *See also* Norberto Bobbi, *Liberalism and democracy* (Verso, 1990) 21-24.

<sup>98</sup> Jacob Rowbottom, *Democracy Distorted* (CUP, 2010) 15.

form of democracy sees political mobilisation as a competition between incompatible views to seek the advantage for their own interests. Through this mechanism, various interests aggregate and result in government's decision.<sup>99</sup> Liberal democracy, therefore, emphasises the opportunity for participation of different interests and assures that those interests are taken into account and properly weighed.<sup>100</sup>

The true political competition in liberal democratic society requires a debate about possible alternatives.<sup>101</sup> This competition should not only occur in the public but should appear in the acknowledgement of individuals. Within the marketplace of ideas frameworks, expose diversity assists citizens to be presented to 'widest possible dissemination of information from diverse and antagonistic sources'.<sup>102</sup> The role of exposure diversity in a liberal democracy is to contribute to the consumption of the debate over different views of the conflicting interests by providing the places for these alternatives to be expressed and to be heard by the people in society. By exposing themselves to diverse incompatible opinions, citizens are well-informed and become the capable decision-makers to effectively compete in liberal democratic participation. Besides, exposure diversity prevents the dangers from the permanent majority of a single interest group by providing marginal views presented as an alternative. This can also be considered as the assurance of different interests to have equal opportunity for participation in a political competition.

### 3) Deliberative democracy

Deliberative democracy proposes that 'central to democracy should be a particular kind of communication, involving the giving of good reasons and reflection upon points advanced by others'.<sup>103</sup> The concept of this democracy has two crucial features. First, it values the deliberation process as an ideal method to achieve public consensus concerning the common good. The process of deliberation does not simply mean that the individual advances his views by persuading others but it means that his own opinion can be changed or transformed during the course of discussion with

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<sup>99</sup> Robert Dahl, *A Preface to Democratic Theory* (University of Chicago Press, 1956) 145.

<sup>100</sup> Joshua Cohen, 'Procedure and Substance in Deliberative Democracy' in Thomas Christiano (ed.), *Philosophy and Democracy* (OUP 2003) 17, 20.

<sup>101</sup> Chantal Mouffe, 'Democracy in a Multipolar World' (2009) 37(3) *Millennium* 549, 551.

<sup>102</sup> *Associated Press v. United States* 326 U.S. 1 (1945).

<sup>103</sup> John Dryzek and Patrick Dunleavy, *Theories of the Democratic State* (Palgrave Macmillan, 2009) 215.

others.<sup>104</sup> In other words, deliberation is the provision of reasons and the process of open discussion to mutual understanding.<sup>105</sup> Another element is the concept of the public sphere. According to Habermas, the public sphere refers to the metaphorical arena where people gathers to participate in the rational communication.<sup>106</sup> It is the space of formation of public opinion and is distinct from the marketplace of ideas which is the forum of competitive interests.

Under this democratic approach, people raises public concerns and rationally debates together about how the best to solve them. This approach believes that the common good that all people accept can be reached by the deliberative procedure.<sup>107</sup> The goal of this democratic process is more than a mere agreement or a bargaining of incompatible interests as the liberal democracy but it is a true rational consensus.<sup>108</sup> Therefore, from deliberate democratic views, exposure diversity is a crucial process of public consensus and finding common good. This is because deliberative democracy requires people to hear a range of diverse and inclusive ideas in order to be able to revise and adapt their views. As Price states:

‘[w]hat makes opinion deliberative is not merely that it has been built upon careful contemplation, evidence, and supportive arguments, but also that it has grasped and taken into consideration the opposing view of others.’<sup>109</sup>

Exposure to conflict viewpoints prevents audience polarisation which is a problem from deliberative aspects. If audience polarisation occurs, the pool of available information and ideas will be less diverse and the chance to discover new perspective or facts will be diminished. If we only get to see the things we already agree, we will not contest our own ideas and viewpoints. The lack of challenging by opposing viewpoints

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<sup>104</sup> Lincoln Dahlberg, ‘Democracy via cyberspace’ (2001) 3(2) NMC 157, 167.

<sup>105</sup> Will Kymlicka, *Contemporary Political Philosophy* (OUP, 2002) 291-292.

<sup>106</sup> Jürgen Habermas, *The Structural Transformation of the Public Sphere* (Polity Press, 1992) (Habermas describes how the coffee houses of the eighteenth century in Europe led to the development of such a public sphere in which people could engage in debate and participate)

<sup>107</sup> See e.g. John Dewey, *The Public and Its Problems* (A. Swallow, 1927) 207.

<sup>108</sup> John Dryzek, *Deliberative Democracy and Beyond* (OUP, 2000); See also John Rawls, ‘The Idea of Public Reason’ in James Bohman and William Rehg (eds.), *Deliberative democracy* (MIT Press, 1997) 447 (Rawls uses the term ‘reasonable’); Jürgen Habermas, *Between Facts and Norms* (Polity Press, 1996) (Habermas presented the concept of ‘communicative rationality’.)

<sup>109</sup> Vincent Price et al., ‘Does Disagreement Contribute to More Deliberative Opinion?’, (2002) 19(1) Political Communication 95, 97.

leads us not to be aware of disagreements. As a result, the public consensus between incompatible views will be difficult to refine.

Therefore, it is crucial that members of the relevant groups are not isolated from the different views within society. For the need to maintain a well-functioning system of deliberative democracy, people should be exposed to materials and topics that they would not have chosen in advance. The unplanned or unanticipated encounter of new topics is essential for engagement between differing views and supports deliberative participation.<sup>110</sup>

ii. Exposure diversity encourages democratic society

As discussed in the previous section, there are many distinct theories of democracy; however, exposure diversity is a crucial element in every democratic theory. Therefore, after exploring exposure diversity from the perspective of each democratic theory in the previous section, this section summarises the value of exposure diversity which underlying all these theories of democracy. The section considers three major reasons to favour the widest possible dispersal of viewpoints exposed to people; they are well-informed citizens, securing democratic process, and equality in the democratic distribution of communication power.

1) Well-informed citizens

Possibly most obvious among the benefits of exposure diversity in a democracy is that it assists people in society to be well informed. To effectively participate in democratic discourse, people requires the capacity to reasonably understand political issues, social matters and public concerns in order to form public opinion. For this purpose, the basic standard for democracy is the environment of very wide and fair dispersal of different voices and of ubiquitous opportunities to present opinion. As Bagdikian pointed out:

‘...Modern democracies need a choice of politics and ideas, and that choice requires access to truly diverse and competing sources of news, literature, entertainment and popular culture.’<sup>111</sup>

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<sup>110</sup> Cass Sunstein, *Republic.com* (PUP 2001) 8-9.

<sup>111</sup> Ben Bagdikian, *The Media Monopoly* (Beacon Press, 1992).

To be well-informed citizens, people need to receive diverse information and thoughtful communications. A good argument can arrive from any part of the society, especially from the challenge of the marginal voices. Therefore, all groups should have a real share of people's attention and no one group or individual should have been neglected or subordinated.

This concern has traditionally interpreted, in the age of scarcity media, as a structural requirement to maximise the dispersal of media ownership and available media content. The problem now, however, is that the abundance of information is neglected by audience polarisation. Thus, in addition to the availability of different voices as an information resource, for citizens to participate fully in the democratic discourse, they also require the consumption of diverse views, opinions and policy choices.<sup>112</sup> The consumption of diverse information encourages people to discuss and question about conflict viewpoints they know which are necessary for formulating their own views.

Moreover, exposure diversity promotes people's tolerance of difference. By being exposed to diverse information, individuals unconsciously become more tolerant toward disagreed opinions and 'accept difference as a normal and unthreatening facet of society'.<sup>113</sup> This is a desirable condition for open-minded discussion and being well-informed citizens. Therefore, democracy requires an environment where not only different versions of the facts can be contrasted and tested in the public, but where also differing emphasis and diverse opinions given to those facts can actually be exposed to individuals' concerns.<sup>114</sup>

## 2) Securing democratic process

One of the most important roles of exposure diversity is the safeguard it creates for the democratic process. The common agreement between many democratic theories is that the heart of the strong democratic society is the open and reflexive contestation of diverse political positions in order to prevent the unchecked irresponsibility power; in particular, the election for elite democracy, competition among conflict interests for liberal democracy, and participation in the public sphere for

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<sup>112</sup> Thomas Gibbons, 'Pluralism, Guidance and the New Media' in Christopher Marsden (ed.), *Regulating the Global Information Society* (Routledge, 2000) 304.

<sup>113</sup> Kris Dunn and Singh Shane, 'Pluralistic Conditioning' (2014) 21(1) *Democratization* 1, 4.

<sup>114</sup> Vaira Vīķe-Freiberga et al., 'A free and pluralistic media to sustain European democracy' (Report of the High Level Group on Media Freedom and Pluralism, January 2013) 11.

deliberative democracy. As Baker pointed, the good democratic institutional designs do not allow any risks from the unchecked irresponsibility power to occur, even if the risk had never exercised to bad results.<sup>115</sup> This is clearly illustrated from many instruments provided to safeguard the accountability of the government, such as the system of separation of power, fair electoral process, and freedom of media.<sup>116</sup> Similarly, as discussed above, exposure to diverse media content is also a structural means to reduce the risk of abuses of power in controlling society. In particular, exposure diversity prevents the corruption and incompetent leader in elite democracy; it secures equal opportunity for participation in political competition in liberal democracy; and it prevents a single view to be misled as public consensus in deliberative democracy.

Democracy can be threatened by the consumption behaviour of citizens which concentrates around a narrow view, unrepresentative group or even a single person. History illustrates countless instances of the concentrated communicative power causing the exercise of the unchecked irresponsibility power. For example, the media conglomerate in German by Alfred Hugenberg supported the rise of Hitler in power.<sup>117</sup> Although historical stories are about the concentration of media ownership, the polarisation of audiences around the few sources while ignoring abundant alternatives is not any better.<sup>118</sup> Only listening to the like-minded partisans, especially majority group, prevents the awareness of both the important matters that people may disagree with and the information on the basis of raising critical questions. The absence of clashing opposite opinions in individuals' views and the ignorance about minorities voices can result in the abuse of unchecked power. The dispersal of distinct opinion exposed to people prevents audience polarisation which has a negative effect on democracy. Therefore, preventing this undemocratic communicative behaviour provides the reason that exposure diversity, like separation of power, is a key structural safeguard for democracy.

### 3) Equality in democratic distribution of communication power

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<sup>115</sup> Edwin Baker, 'Viewpoint Diversity and Media Ownership' (2009) 61(3) Federal Communications Law Journal 651, 655.

<sup>116</sup> Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation* (Clarendon, 1907).

<sup>117</sup> For further discusses See Daniel Hallin and Paolo Mancini, *Comparing Media Systems* (CUP, 2004) 155. (They also discuss about 'Berlusconi effect').

<sup>118</sup> For further discusses about media ownership and democratic safeguard See Edwin Baker, *Media Concentration and Democracy* (CUP, 2007) 16-19.

The last democratic value of exposure diversity discussed here is the provision of equality in the distribution of communicative power. Every normative theory of democracy is generally committed to some form of people's equality right to participate in democratic process. In particular, elite democracy emphasises on equal opportunity for a candidate to influence citizen in electoral process whereas liberal democracy is concerned about equal opportunity for conflict interests to participate in the political competition. For the deliberative democracy, Wolin described that '...[Deliberative democracy] is about how we equalise politically in acting together for shared purposes'.<sup>119</sup> Therefore, democracy is widely understood as the equality that each person should have an opportunity to say and given attention.

The one-person/one-vote principle is a good illustration to interpret a classic statement of political equality in public decision-making. Though the principle does not provide actual equality, it guarantees the structure respecting citizen's equal claim to be recognised in the democratic process. Baker commented that:

'The egalitarian premise that justifies the formal one person, one vote requirement also applies to voice within the public sphere. Voice, more than vote, creates public opinion and provides the possibility of deliberation.'<sup>120</sup>

In other words, a right to vote would not have a meaning if each person is not given equal value to say.<sup>121</sup> In the context of exposure diversity, the commitment to political equality does not only mean that people have a right to speak but each political viewpoint should be granted an equal opportunity to be heard and considered. The consumption of diverse information is a means to distribute public debate to ensure that no permanent single opinion is a privilege to influence others. As Dworkin points, the best form of democracy is the form that treats all members of the community with equal concerns.<sup>122</sup>

In a democratic society, therefore, the standard is that citizens have an equal opportunity to influence public discourse. This standard requires people to have an equal

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<sup>119</sup> Sheldon Wolin, 'Democracy and Counterrevolution' (1996) *Nation* 22, 24.

<sup>120</sup> Edwin Baker, 'Viewpoint Diversity and Media Ownership' (2009) 61(3) *Federal Communications Law Journal* 651, 654.

<sup>121</sup> For further discusses see Amy Gutmann and Dennis Thompson, *Democracy and Disagreement* (Belknap Press, 1996).

<sup>122</sup> Ronald Dworkin, *Sovereign Virtue* (Harvard University Press, 2000) 187-188.

‘starting point’ but not always the similar results.<sup>123</sup> Providing diverse viewpoints presented to each individual can be regarded as equal ‘starting point’ for various opinions to influence public debate. Therefore, exposure diversity is what needs to be encouraged to ensure that everyone has a fair chance.

c. Exposure diversity and personal autonomy

The last justification why exposure diversity should be concerned in media law and policy is its importance on personal autonomy. This section, therefore, explores the relation between exposure diversity and personal autonomy. It first provides the concept of personal autonomy; then follows with the analytical provision of exposure diversity as a crucial element of personal autonomy.

i. Definition and theory of personal autonomy

Personal autonomy has a broad meaning depending on the aspects of interests it refers to. In this thesis, however, it can be conceptualised as the ideal of individuals to be the author of his own life and to control the successive decisions throughout his life by his own hands.<sup>124</sup> Personal autonomy also requires the right to form a certain kind of unusually important decisions that will affect his own destiny.<sup>125</sup> This notion of personal autonomy reflects ‘freedom of thought, belief, expression and certain intimate conduct’.<sup>126</sup> Consequently, it praises ‘the right to differ as to things that touch the heart of the existing order’.<sup>127</sup> Therefore, autonomy safeguards the ability to define one’s identity and makes an individual have the authority over self-creation of his unique personality. To summarise, personal autonomy is the life characterised as ‘self-determination’ or ‘self-government’ on behalf of oneself.<sup>128</sup>

The conception of personal autonomy should be understood as being compatible with the notion of subjectivism and relativism: what is good for some is not necessarily good for all. The vital part of autonomous life, then, is that people choose what they think is good for themselves which may not fit for others from a range of various choices. The

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<sup>123</sup> Sandra Fredman, *Discrimination Law* (OUP, 2011) 18.

<sup>124</sup> Joseph Raz, *The Morality of Freedom* (OUP, 1986) 369. for the analysis of different conceptions of autonomy see John Christman, *The inner Citadel* (Echo Point Books and Media 2014).

<sup>125</sup> Jeremy Waldron, *Liberal Rights* (CUP, 1993) 161.

<sup>126</sup> *Lawrence v. Texas* 539 U.S. 538, 562 (2003).

<sup>127</sup> *West Virginia Board of Education v. Barnette* 319 U.S. 624, 642 (1943)

<sup>128</sup> Gerald Dworkin, *The Theory and Practice of Autonomy* (CUP, 1988) 6.

choice is a necessary requirement for a fulfilling and authentic existence. Therefore, to have an autonomous life, a person must be free to choose a choice from an adequate range of options accommodating the diversity of interests and tastes.

ii. Exposure diversity as a crucial element of personal autonomy

As mentioned above, personal autonomy must allow choices and the change to be made continually. In other words, a fundamental requirement of personal autonomy is the capacity to perceive the state of the world, to conceive of available options for action and evaluate alternative outcomes. All of the components of creating personal autonomy are constituted by information and communications environment individuals occupy. These conditions should not mean only what made available but its importance is what individuals actually consumed. To be autonomous, diverse and antagonistic viewpoints have to be exposed to the attention of individuals. Therefore, central to the autonomous value of exposure diversity is ‘to enable or empower the individual to realise her personal freedom of choice and self-fulfilment through the media contents she decides to consume’.<sup>129</sup>

In *the Wealth of Networks*, Benkler gives a good example of the relationship between media plurality and personal autonomy.<sup>130</sup> Though the example focuses on the diversity of media ownership, it can be drawn as an analogy to exposure diversity. Therefore, to illustrate the importance of exposure diversity on personal autonomy, the discussion here will describe the example from the perspective of exposure diversity. Benkler starts that there are three different societies; the Reds, the Blues, and the Greens. The Red society agrees that there is only one storyteller and he is in a hereditary position to decide alone which stories to tell. Consequently, Red people consume only one source of information which is exposed to them. On the contrary, the Blue society uses a majority rule to select storyteller every day. Thus, viewpoints exposed to the Blue society reflects the preference of the majority. In contrast, in the Green society, every one of Green people can tell stories anytime and everywhere. People stop and listen, sometimes in small groups of two or three, and sometimes in very large groups.

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<sup>129</sup> Natali Helberger, ‘Diversity label’ (2011) 1 J.Inf.Pol 337, 345.

<sup>130</sup> Yochai Benkler, *The Wealth of Networks* (YUP 2006) 162-165.

Benkler describes that ‘stories in each of these societies play a very important role in understanding and evaluating the world. They are the way people describe the world as they know it. They serve as testing grounds to imagine how the world might be, and as a way to work out what is good and desirable and what is bad and undesirable’.<sup>131</sup> People in each society can be a representative of different types of people in the real world. In particular, whereas there is an infinite of media content on the Internet, people may choose what to be exposed to: only one or few preferred sources, or popular content favoured by the majority, or diverse content.

For the Reds, the storyteller’s perception of the range of options defines the universe of options the Reds can have. This clearly limits the size and diversity of the range of views to shape the Reds’ aspirations and actions. For the Blues, their autonomy is influenced by the popular among the majority. If the majority selects only a narrow choice of entertaining, popular or pleasing perspective, then the Blues’ perception of the range of options will be only slightly wider than the Reds’. In contrast, for the Greens, no one person, and no majority, determines for them whose stories or the range and diversity of stories they can listen to. They can be exposed to a wider variety of conceptions of how life can and ought to be lived. It is clearly illustrated that the Greens have a greater chance to exercise freedom to choose and fulfil their personality from a range of stories than the Reds and the Blues. The wider diversity of perceptions consumed, the greater choice and increases individuals’ ability to compose his own life story out of the more varied materials at their disposal. Therefore, the Greens can be more self-authored than either the Reds or the Blues.

We can now summarise on how the example provides a way of understanding the autonomous value of exposure diversity. In order to sustain personal autonomy, one would be exposed to diverse choices that included at least some unconventional and non-mainstream views. If all the views the individual consumed are conventional or mainstream, then one loses an important dimension of self-creation. This does not mean that truly autonomous value must be unconventional, but as Benkler stated:

‘...[I]f self-governance for an individual consists in critical reflection and re-creation by making choices over the course of his life, then some of the options open must

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<sup>131</sup> Ibid, 162.

be different from what he would choose simply by drifting through life, adopting a life plan for no reason other than that it is accepted by most others. A person who chooses a conventional life in the presence of the option to live otherwise makes that conventional life his or her own in a way that a person who lives a conventional life without knowing about alternatives does not<sup>132</sup>

In conclusion, Part I illustrates the shift of media plurality concerns in the Internet age from diversity of ownership and available content to exposure diversity. Although news sources are still concentrated on traditional media due to the brand loyalty and diversity on the supply side is still the issue, the problems now are not about the scarcity of media resources but about the behaviour of audience fragmentation and audience polarisation. Therefore, exposure diversity which refers to actual diverse media content exposed to the audience raises an importance in media law and policy. However, the current media policy still traditionally marginalises and neglects the aspect of exposure diversity. This part also analyses the public interests value of exposure diversity (which are freedom of speech, democratic value and personal autonomy) as the justification why media law and policy should be concerned about exposure diversity.

It can be argued that although exposure diversity is crucial, it is inappropriate for the government to force the audience to choose diversely or consume certain information even the valuable ones. This direct interference can be regarded as illegitimate because it potentially conflicts with fundamental freedoms of people. However, as will be discussed in the next Part, the government can take a positive role to create the conditions which encourage people to exercise their freedom to effectively expose themselves to diverse content. In particular, in an environment of information overload, the government can empower the audience by imposing obligations on selection intermediaries to assist the audience to reach diverse content. Selection intermediaries are the tools people rely on in order to find and select what they consume in this information overload environment. Influencing by filters, ranking and targeted recommendations, these new selection intermediaries determine the consumption behaviour of people and the viewpoints which are actually exposed to the audience. Therefore, the effect of selection intermediaries on

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<sup>132</sup> Ibid, 151.

exposure diversity and the justification to regulate selection intermediaries to promote exposure are worthy of concern.

## **Part II: Exposure diversity and selection intermediaries**

As discussed in the previous part, exposure diversity has a public interest value so it should be within media policy concerns. Once it has been established that there are reasons to support exposure diversity, the next issue is what form can be taken to achieve this goal. One possible concrete measure in this context, that is central to the thesis, is the regulation of selection intermediaries to promote diverse content exposed to people. This Part, therefore, discusses the relation between exposure diversity and selection intermediaries. It is divided into two sections. The first section examines the influence of selection intermediaries on exposure diversity. The following section then analyses the justification why the selection intermediaries should be regulated in order to promote exposure diversity.

### *1. The relation between exposure diversity and the operation of selection intermediaries*

When raising the issue about search engines and social media, notions of gatekeepers are often not far behind. Besides, from the standpoint of safeguarding media plurality, media law and policy have had a long tradition of regulating gatekeepers. Therefore, this section will use the concept of ‘gatekeepers’ to analyse the influence of selection intermediaries on exposure diversity. Empirical research will also be provided as the support to illustrate the relation between exposure diversity and the operation of selection intermediaries. It will be clearly illustrated in this section that selection intermediaries can assist or obstruct the level of diverse content presented to people.

#### a. Definition and concept of gatekeepers

Generally, gatekeepers are entities which exercise the power to choose what can pass through a gate. The original concept of gatekeepers can be traced to the work of Lewin in 1947. His theory of gatekeeping examines a ‘key position’ to influence the change of the society as a whole.<sup>133</sup> Lewin commented that social change can be achieved

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<sup>133</sup> Kurt Lewin, ‘Frontiers in Group Dynamics’ (1947) 1(2) Human Relations 143.

by changing the mind of the gatekeepers (key position).<sup>134</sup> He provided the example that the decision of a housewife about what to buy will determine what food is placed on the dinner table.<sup>135</sup> The housewife, therefore, is the gatekeeper controlling the movement of foods to be accepted and rejected.

After Lewin, the notion of gatekeepers has been adapted and developed in various fields of social study.<sup>136</sup> However, the first explicit application of the concept of gatekeeper to mass media appears is in White's work.<sup>137</sup> White analysed the selection process in newspapers. In this process, news item passes through many people such as reporters and rewriters to make an initial selection based on their own background before the editor made a final decision. Therefore, the media gatekeepers do not determine the objective perspective of the public events, but 'a fact only those events which the newsman, as the representative of his culture, believe to be true'.<sup>138</sup> Following White, scholars in the field of mass media have most often characterised the gatekeeper's decision-making process as the selection of news by journalists.<sup>139</sup>

The Internet, however, has presented new challenges to these traditional models of gatekeepers. Most existing conceptualisations still focus primarily on the role of a journalist rather than understanding how network and users disseminate content. Consequently, the existing concepts do not function in identifying the gatekeepers in an online network environment.

Barzilai- Nahon, therefore, proposes Network Gatekeeper Theory as a new conceptual framework for gatekeepers. This theory brings the gatekeeper concept into the online network by moving the gatekeeper notion from the focus on 'information selection and distribution' to 'information control'.<sup>140</sup> In his theory, network gatekeepers are

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<sup>134</sup> Ibid, 145.

<sup>135</sup> Ibid, 143-144.

<sup>136</sup> For further discussed see Karine Barzilai-Nahon, 'Gatekeeping' (2009) 43(1) Annual Review of Information Science and Technology 1.

<sup>137</sup> David White, 'The "gate keeper"' (1950) 27(4) Journalism Quarterly 383.

<sup>138</sup> Ibid, 390.

<sup>139</sup> See e.g. Herbert Gans, *Deciding what is news* (Northwestern University Press, 2004); Abraham Bass, 'Redefining the "gatekeeper" concept' (1969) 46(1) Journalism Quarterly 59. Bruce Westley and Malcolm MacLean, 'A conceptual model for communications research' (1957) 34(1) Journalism Quarterly 31.

<sup>140</sup> Karine Barzilai-Nahon, 'Toward a Theory of Network Gatekeeping: A Framework for Exploring Information Control' (2008) 59(9) Journal of American Society for Information Science and Technology 1493, 1495.

entities that control the process of ‘gatekeeping’ through a ‘gatekeeping mechanism’.<sup>141</sup> The network gatekeeping is the ‘process of controlling information as it moves through a gate’.<sup>142</sup> This process is not only a selection of news, but also involves the process such as: shaping or manipulating information into a particular form, channelling or localising information through a channel, and deleting information. The gatekeeping mechanism is a ‘tool, technology, or methodology used to carry out the process of gatekeeping’.<sup>143</sup> For example, the mechanisms are: channelling mechanisms such as search engines and hyperlinks, censorship mechanisms such as filtering and blocking, and infrastructural mechanisms controlling an access to the network at the algorithmic and infrastructural levels. Following Barzilai-Nahon, the concept of gatekeepers is seen as intermediaries of information who control information as it passes through a gate.

b. New gatekeepers: selection intermediaries

In an environment of overflowing available information, a major question is who are the gatekeepers that can encourage people to consume diverse or different viewpoints. While there is infinite information on the Internet, people need a guide to find and select only a few choices which present a certain aspect. Consequently, information control in the online network is not the production or distribution of content, but the means to control users’ attention. On the Internet structure, people with limited attention find information through links. Unless they know the exact link to a location of a web page, it may not be possible for the content to be found. Unlike the offline world where people can walk through every shelf in a library to find a book and people can read through all newspapers to find what they are searching for, contents on the Internet appear only when they are determined by links.

In this situation, selection intermediaries emerged as the tool to gather links for the audience in order to find and select content. Selection intermediaries can make content detectable, noticeable, and available in the attention of users. Audience now rely on selection intermediaries to assist them to make choices from the infinite information. They, therefore, are gatekeepers and become the key people needed in order to find the relevant information.

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<sup>141</sup> Ibid, 1497.

<sup>142</sup> Ibid, 1496.

<sup>143</sup> Ibid, 1496.

Search engines and social media, which are the selection intermediaries focused on in this thesis, exercise their power as gatekeepers to control people's attention as follows:

Search engines can use the filtering or blocking algorithms (censorship mechanisms<sup>144</sup>) to exclude some content from the search results. They can also shape the information environment by the value-adding mechanisms.<sup>145</sup> Personalisation, customisation and the ranking algorithms are the value-adding tools to increase the attractiveness of some content providers over other sites. These gatekeeping mechanisms can serve as a lock-in mechanism to attract people's attention to particular information (e.g. top search results) or prevent people from finding alternative views.

For social media, they provide a platform with the functions for users to participate in exercising the gatekeeping process. For example, Facebook allows users to make choices about 'what information to add, withhold, and disregard in user's newsfeed'.<sup>146</sup> Twitter channels<sup>147</sup> information through its site by facilitating the functions of 'followed' and 'retweeting'. Any users of Twitter can follow any other in order to receive all tweets from those they follow and retweeting or forwarding the tweets of other users to disseminate certain content. Although these social media may not exercise the editorial control as conceptualised by the traditional gatekeeping theory, they perform their own network gatekeeping by manipulating<sup>148</sup> information available on their platform. Some content (especially interested or popular ones) can be promoted to the front page, while some receive a little attention.

Selection intermediaries, therefore, are the new gatekeepers. They do not simply locate content but determine the actual choices and what opinions are available for users to choose.

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<sup>144</sup> 'Censorship mechanisms are a set of means aiming towards suppressing or deleting anything considered objectionable or undesired. That is, assuring that "undesired" information does not enter or exit or circulates the gatekeeper network' (Barzilai-Nahon, Table 3, 1498.)

<sup>145</sup> Value-adding mechanisms refers to 'Controlling information through providing added-value products and services that increase the attractiveness of the gatekeeper network and its sections to gated' (Barzilai-Nahon, Table 3, 1498.)

<sup>146</sup> David Deluliis, 'Gatekeeping Theory from Social Fields to Social Networks' (2015) 34(1) *Communication Research Trends* 4, 18.

<sup>147</sup> Channelling refers to 'conveying or directing information into or through a channel' (Barzilai-Nahon, Table 2, 1497.)

<sup>148</sup> Manipulation refers to 'changing information by artful or unfair means to serve the gatekeeper's purpose' (Barzilai-Nahon, Table 2, 1497.)

### c. Gatekeepers and exposure diversity

As discussed, the gatekeepers make decisions about what information to let through and what to keep out. They, therefore, have a crucial impact on the actual content that is exposed to people behind the gate. The influence of the operation of gatekeepers on exposure diversity can clearly be illustrated by Shoemaker's description of gatekeeping process:

‘Simply put, gatekeeping is the process by which the billions of messages that are available in the world get cut down and transformed into the hundreds of messages that reach a given person on a given day.’<sup>149</sup>

As a result, the operation of gatekeepers can be considered as a pre-selection process of the absolute amount of different types or aspects of information that viewers can choose from. If the concerns of exposure diversity are about the process of making choices from various content which is actually available to individuals<sup>150</sup>, then gatekeepers are the major factors which affect a wide range of the political and social views or the different sources actually reach an audience.

The relation between exposure diversity and gatekeepers can also be analysed from the distinct types of gatekeepers: the role of media entities and the intermediaries that control critical accessibility services. The different types of gatekeepers have a different influence on exposure diversity.

For the former type of gatekeepers, media entities exercise the editorial control to select the type, format and order of content that is presented to the audience. The impact of these decisions has made many versions or extremely opposing perspectives of a controversial issue. As White stated, the media gatekeeper determines the picture of the events to the public based on the gatekeeper's own experiences, attitudes, and expectations.<sup>151</sup> Consequently, exposure diversity in term of discovering the difference<sup>152</sup> depends on the number of the various views presented by journalists (impartiality).

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<sup>149</sup> Pamela Shoemaker, *Gatekeeping* (Sage Publications, 1991) 1; See also Pamela Shoemaker, *Gatekeeping Theory* (Routledge, 2009) 1 (‘...process of culling and crafting countless bits of information into the limited number of messages that reach people every day’).

<sup>150</sup> See Part I.2a Definition of exposure diversity, p.45.

<sup>151</sup> David White, ‘The “gate keeper”’ (1950) 27(4) *Journalism Quarterly* 383, 384.

<sup>152</sup> See Part I.2b Classification of exposure diversity, p.47.

Therefore, the consumption of diverse content (in order to be aware of the divergent opinions and can critically evaluate the possible alternatives) is influenced by the gatekeeping process called editorial control.

The latter type of gatekeepers is, for example, the Internet service providers (ISPs). These gatekeepers control the network structures that is needed for transmitting content from senders to receivers. Referring to the Network Gatekeeper Theory, these gatekeepers can influence diverse opinions exposed to people by the network gatekeeping process such as refraining from allowing certain information to pass through the gate (withholding).<sup>153</sup> In particular, by exercising the gatekeeping mechanism such as the censorship mechanisms (e.g. filtering and blocking)<sup>154</sup>, they have an effect on the findability of content. Therefore, the operations of these gatekeepers have affected exposure diversity in term of the openness to diverse speakers. It can also impact exposure diversity in the aspect of the choices to choose freely from the sufficient variety of content.<sup>155</sup>

As gatekeepers, selection intermediaries certainly have an influence on exposure diversity. Selection intermediaries combine the characteristics of both types of gatekeepers mentioned above. They play an important role in controlling an access to information by being the platform for the content providers to meet users. What is excluded in the content recommendations can be said that it is not presented in an online network. At the same time, they function as editor-like by selecting and ordering information to catch people's attention. These two characteristics affect the consumption behaviours of people and the absolute amount of different information that viewers can choose from. Selection intermediaries, therefore, have a potential to influence people's exposure to diverse media content. These intermediaries' operation of providing content recommendations can be considered as an indication of the level of diverse content exposed to people. As Goodman observes, the 'power of media consumption today lies as much with those who guide individuals to content through such tools as search engines...'.<sup>156</sup>

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<sup>153</sup> See further Barzilai-Nahon, Table 2, 1497.

<sup>154</sup> See further Barzilai-Nahon, Table 3, 1498.

<sup>155</sup> See Part I.2b Classification of exposure diversity, p.47-48.

<sup>156</sup> Ellen Goodman, 'Public Media 2.0' (2008) Available at SSRN: <https://ssrn.com/abstract=1299685> or <http://dx.doi.org/10.2139/ssrn.1299685>.

d. Selection intermediaries and exposure diversity: the concern for filter bubble

The relation between the operation of selection intermediaries and exposure diversity can also be illustrated by the concern about ‘filter bubble’. The term filter bubble, coined by Pariser, is ‘a unique universe of information for each of us’.<sup>157</sup> It is an individual’s personal online public sphere he/she lived in that depends on who he is and what she does. The filter bubble is the result of the personalization<sup>158</sup> algorithms exercised by search engines and social media in order to fit the interested perspectives and keep away the opposing viewpoints on behalf of users. According to Pariser, this might lead to the situation in which the user: receives biased information, or never sees contrasting viewpoints, and does not even know what they are missing.

Pariser claims that he noticed the filter bubble due to the disappearance of conservative friends from his Facebook page.<sup>159</sup> This is because what appears in your ‘News Feed’ depends on every action you take on Facebook such as clicking ‘Like’, commenting and sharing (count as ‘Edges’). The relationships and content that do not get enough ‘Edges’ will be blocked out of the existence. For example, any friends whom you fail to click or comment on their posts will cause a stopping delivery of their posts to your feed, and vice versa. Also, the default ‘Top Stories’ setting of your News Feed is determined by the amount of friends’ comments on certain content.<sup>160</sup> There is no way for you to know what gets edited out. Your friends will assume that you are still reading his updates, and vice versa. Consequently, your feeds may actually present only 50 out of your 500 friends.

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<sup>157</sup> Eli Pariser, *The Filter Bubble: What The Internet Is Hiding From You* (Viking, 2011) 9.

<sup>158</sup> Personalization can be distinguished into two types: self-selected personalisation and pre-selected personalisation. Self-selected personalisation refers situations in which people choose to encounter likeminded opinions exclusively. This type of personalization is the concept of selective exposure discussed in Part I 1.b, p.39. Pre-selected personalisation driven by websites, intermediaries, or other actors, often without the user’s consent. pre-selected personalisation is often summarised as filter bubble which has discussed here. (See further Frederik Zuiderveen Borgesius et al., ‘Should we worry about filter bubbles?’ (2016) 5(1) *Internet Policy Review*; Neil Thurman and Steve Schifferes, ‘The future of personalization at news websites’ (2012) 13(5-6) *Journalism Studies* 775 (use the term ‘explicit personalisation’ and ‘implicit personalisation’).)

<sup>159</sup> Eli Pariser, 5.

<sup>160</sup> Mike Elgan, ‘How to pop your Internet filter bubble’ (COMPUTERWORLD, 7 May 2011) <<http://www.computerworld.com/article/2508725/internet/elgan--how-to-pop-your-internet--filter-bubble-.html>>

Pariser also examined search results and found that users might get different search results even at the very same time for the same keyword. He asked his friends to google ‘Egypt’ and to send him the screenshots of what they got. One of his friends’ search results did not display anything at all about the protests in Egypt (which was the big story of the day at that time), while another of his friend got a full of this story in his top search results.<sup>161</sup> This is because search results can be prioritised, filtered and hidden depending on the user’s previous interaction.

Therefore, the personalisation of selection intermediaries and the filter bubble can reduce the consumption of information diversity. They allow people to participate in groups that confirm their own views and cut themselves off from the awareness of the contestable and opposite viewpoints. A group of like-minded people can create polarisation which prevents them from experiencing a broader view of the world. Consequently, individuals may lead each other in the direction of error and falsehood because their arguments will not be refined as they might not challenge their existing beliefs. Therefore, if selection intermediaries create bubbles, the exposure to information and ideas will be less diverse. Besides, the discovery of new ideas or the unknown facts outside the bubble will be more difficult since the personalisation does not allow an unexpected encounter or an exposure by chance (called ‘serendipity’<sup>162</sup>) to happen anymore.

e. The empirical evidence of selection intermediaries’ effect on exposure diversity

There can be counter arguments that the filter bubble is the result of the individual’s choices but not the operation of selection intermediaries.<sup>163</sup> In other words, the level of the diverse content people consume is determined by user’s choosing to see certain things more than the algorithmic filters. However, it makes no sense to blame only the personal choices or the selection intermediaries’ operation (and exclude the others) as if they are disconnected and completely separate. Exposure diversity is in fact tied directly to these two things: i.e. the diversity of personal choices derives from the pre-selection of

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<sup>161</sup> Eli Pariser, ‘Beware Online ‘Filter Bubble’ (TED Summaries, 1 February 2014) <[https://www.ted.com/talks/eli\\_pariser\\_beware\\_online\\_filter\\_bubbles?language=en](https://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles?language=en)>

<sup>162</sup> See Part I 2.b citation 53.

<sup>163</sup> Mathew Ingram, ‘Facebook “filter bubble” study raises more questions than it answers’ (Fortune, 8 May 2015) <<http://fortune.com/2015/05/07/facebook-filter-bubble-doubts/>>; See below citation 169.

selection intermediaries. Therefore, it is a fallacy to argue that one is worse than the other. As Jurgenson stated:

‘Individual users choosing news they agree with and Facebook’s algorithm providing what those individuals already agree with is not either-or but additive. ... [A]s if anyone critiquing how Facebook structures our information flows ever strawpersoned themselves into saying individual choice wasn’t important too. What’s important is the finding that, in addition to confirmation biasy individuals, the Facebook newsfeed algorithm exacerbates and furthers this filter-bubble bias over and above the baseline.’<sup>164</sup>

There are many studies that illustrate the influence of selection intermediaries on exposure diversity, both aspects of the positive and negative impact.

For the negative impact, the act of selection intermediaries as gatekeepers can reduce the diversity of content presented to people. For example, Sela and his colleagues conducted a study about the spread of opinions in modern society by comparing the processes through the word-of-mouth and through the online search engines.<sup>165</sup> The examination run by developing a simulated model and applying a real experimental study on human subjects. The study’s result show that the opinions people adopt through an exposure to their friend’s opinions are far more diverse than the opinions adopt when they use a search engine based on the PageRank algorithm. In other words, when people adopt the decisions through the use of search engines, they are exposed to a few dominant search results while other views are barely expressed. Consequently, the use of search engines substantially decreases the diversity of opinions<sup>166</sup>: people searching information through a search engine end up with far more homogeneous opinions as compared to the word-of-mouth spreading.

Bakshy examined how 10.1 million US Facebook users interacted with the socially shared news and the extent to which individuals comparatively encountered more

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<sup>164</sup> Nathan Jurgenson, ‘Facebook: Fair and Balanced’ (Cyborgology, 7 May 2015) <<https://thesocietypages.org/cyborgology/2015/05/07/facebook-fair-and-balanced/>>

<sup>165</sup> Alon, Sela et al., ‘Comparing the diversity of information by word-of-mouth vs. web spread’ (2016) 114(5) *Europhysics Letters* 1.

<sup>166</sup> See also Tien Nguyen et al., ‘Exploring the filter bubble’ (2014) the International World Wide Web Conference 677; Nan Li et al., ‘Channeling Science Information Seekers’ Attention?’ (2014) 19(3) *Journal of Computer-Mediated Communication* 562.

or less diverse content via Facebook's algorithmically ranked News Feed.<sup>167</sup> The study found that there were 903 million of stories given exposure in individuals' News Feeds from around 3.8 billion of the friend's shared content regardless of whether it appeared in the individual's News Feed. People encountered roughly 15% less cross-cutting content in their news feeds due to the algorithmic ranking and they also clicked through to 70% less of this cross-cutting content. Therefore, there is on average slightly less cross-cutting content after the algorithmic ranking.

Furthermore, Hong examined the social media's potential role in contributing to partisan polarisation.<sup>168</sup> The study empirically investigated whether politicians with extreme ideological positions had a larger online readership on Twitter by considering the social media activities of members of the 111 US House of Representatives. The evidence indicates that politicians with extreme ideological positions had, all else being equal, a greater number of Twitter followers than their moderate peers. Therefore, the result of this study suggests that a strong polarisation on social media outlets such as Twitter has the potential to contribute to partisan polarisation which supports the echo chambers view.<sup>169</sup>

In contrast, there is a research suggested that selection intermediaries encourage people to consume more diverse content. In particular, Flaxman empirically examined and analysed the web browsing histories (the records collected via the Bing Toolbar) for 50,000 US-located users who regularly read online news.<sup>170</sup> The study found that social networks and search engines were associated with an increase in an individual's exposure

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<sup>167</sup> Eytan Bakshy et al., 'Exposure to ideologically diverse news and opinion on Facebook' (2015) 348(6239) *Science* 1130. It should be noted that this study is also claimed as showing that Facebook assists people to be exposed to opposing viewpoints; and News Feed ranking has a smaller impact on filter bubble while individual choice plays a large role (see Eytan Bakshy et al., 'Exposure to Diverse Information on Facebook' (Facebook Research, 7 May 2015) <<https://research.fb.com/exposure-to-diverse-information-on-facebook-2/>>). However, this claim faces considerable debates that the conclusions aren't necessarily supported by the evidence actually provided in the paper (see e.g. Zeynep Tufekci, 'How Facebook's Algorithm Suppresses Content Diversity (Modestly) and How the Newsfeed Rules Your Clicks' (The Message, 7 May 2015) <<https://medium.com/message/how-facebook-s-algorithm-suppresses-content-diversity-modestly-how-the-newsfeed-rules-the-clicks-b5f8a4bb7bab#.u1w1701r6>>; Christian Sandvig, 'The Facebook "It's Not Our Fault" Study' (Social Media Collective, 7 May 2015) <<https://socialmediacollective.org/2015/05/07/the-facebook-its-not-our-fault-study/>>; Eli Pariser, 'Did Facebook's Big New Study Kill My Filter Bubble Thesis?' (Wired, 7 May 2015) <<https://www.wired.com/2015/05/did-facebooks-big-study-kill-my-filter-bubble-thesis/#.hzwcd07ae>>).

<sup>168</sup> Sounman Hong et al., 'Political polarization on twitter' (2016) *Government Information Quarterly* 1.

<sup>169</sup> See also Kyu Hahn et al., 'Fragmentation in the Twitter Following of News Outlets' (2015) 92(1) *Journalism and Mass Communication Quarterly* 56.

<sup>170</sup> Seth Flaxman et al., 'Filter bubbles, echo chambers, and online news consumption' (2016) 80 *POQ* 298.

to material from his or her less preferred side of the political spectrum. Specifically, although articles found via social media or search engines were indeed associated with higher ideological segregation than directly visiting the news sites, somewhat counterintuitively, ‘these channels are associated with greater exposure to opposing perspectives’.<sup>171</sup>

Heatherly examined the relationship between the use of social media and the involvement in both cross-cutting and like-minded discussions.<sup>172</sup> The research used data from a nationally representative survey of the US Democrats and Republicans. The results revealed that both like-minded discussions and cross-cutting discussions were occurring on social media. While like-minded conversations occur more frequently, substantial levels of the cross-cutting exchanges are also occurring on social media. Besides, the findings of this study imply that social media do not appear to encourage the discussion among the parties’ polarised members. For individuals who lack the interest in politics or do not engage in a political discussion regularly, the study also suggests that the use of social media promotes the exposure to and the exchange of ideas among people who hold different political views.<sup>173</sup>

Valeriani and Vaccari studied the accidental exposure to political information on social media based on the three Computer-Assisted Web Interviewing surveys (representative samples of German, Italian, and British Internet users).<sup>174</sup> They found that the accidental exposure to political information on social media is positively and significantly correlated with the online participation in all three countries. The study also challenged the notion that social media are solely capable of enhancing the patterns of selective exposure to politics. The findings suggest that the inadvertent encounters with political content on social media are potentially broadening the range of voices that make themselves heard.

In conclusion, selection intermediaries are the gatekeepers in the Internet world which directly influence the diversity of content exposed to people. These new gatekeepers control the findability of content by organising and prioritising the

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<sup>171</sup> Ibid, p.319.

<sup>172</sup> Kyle Heatherly et al., ‘Filtering out the other side?’ (2017) 19(8) NMC 1271.

<sup>173</sup> Ibid, p.14-15.

<sup>174</sup> Augusto Valeriani and Cristian Vaccari, ‘Accidental exposure to politics on social media as online participation equalizer in Germany, Italy, and the United Kingdom’ (2016) 18(9) NMC 1857.

recommendation results, filtering the media choices people make, and personalising the recommended content. If we consider that people can possibly consume diverse choices only if they have a chance to choose the alternatives, then exposure diversity would depend on the selection intermediaries' process of providing choices. Therefore, it is clearly illustrated that selection intermediaries play a crucial role in expanding or diminishing the diverse content people are exposed to. Keeping all these impacts of selection intermediaries in mind, it is not an exaggeration that a possible concrete measure to achieve exposure diversity goal is the regulation of selection intermediaries.

## 2. The justification to regulate selection intermediaries to achieve exposure diversity

After exploring the relation between selection intermediaries and exposure diversity in the previous section, the regulation of selection intermediaries can be considered as a measure to achieve exposure diversity. However, the imposition of obligations on selection intermediaries has to be concerned about the protection of the rights of selection intermediaries, especially freedom of speech. This section, therefore, analyses the justification of regulating selection intermediaries to promote exposure diversity. It first starts by exploring the rights of selection intermediaries. Then, the next subsection examine the other public interests which can be considered as the restriction of the rights of selection intermediaries. Finally, the last subsection analyses that the right to free speech of selection intermediaries should have the duty and responsibility similar to media freedom.

### a. The right to freedom of speech of selection intermediaries

When discussing the regulation of selection intermediaries, the critical issue is whether the operation of selection intermediaries is under the protection of free speech. This is because selection intermediaries are not directly run by a human but involve the use of algorithms. However, it should be noted that algorithms do not function apart from humans: humans design algorithms and can manipulate its operation. Selection intermediaries rely on algorithms to determine which links, messages, or stories will rise to the top of their recommendation results. Although algorithms itself are non-human and

are not speech, their outputs (the decisions created by algorithms) may be speech. The recognition that the operations of selection intermediaries are speech has a major impact on the regulation to achieve exposure diversity. If the algorithm-based decisions are treated as speech, the regulations are subject to the strict scrutiny by requiring more justification and being easier to be rejected on the constitutional grounds. In contrast, if free speech does not encompass this automatic operation, the government can easily intervene in the recommendation results such as censorship which disadvantages exposure diversity.

In the US, there is case law that directly confronts the First Amendment's application to search results. Although such cases are specific to the First Amendment context and are decided in the federal district courts, they are the only cases for which this issue has been litigated thus far. Since there are no such cases in Europe to draw from, these US cases can provide a guidance on the issues of search engines' free speech.

In the initial case, *Search King, Inc. v. Google Technology, Inc.*<sup>175</sup>, Search King sued Google for interference with search results that causes its website not being included in the search results. Google defended itself by arguing that the search rankings generated by its algorithms were the protected speech under the First Amendment. The court held that Google's ranking is 'an opinion of the significance of particular websites as it corresponds to a search query'<sup>176</sup> and is 'inherently subjective in nature'. Accordingly, the court concluded that Google's PageRanks was 'entitled to full constitutional protection'.<sup>177</sup>

Likewise, in *Langdon v. Google, Inc.*<sup>178</sup>, a website operator accused Google of failing to include his website in search results. The court found that the plaintiff's insistence that search engines must carry his ads and rank his websites would contravene search engines First Amendment rights'.<sup>179</sup>

In Europe, although there are no court decisions directly on the issues of search engines' free speech, there is case law referred to this issue. For example, *Google Spain*

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<sup>175</sup> *Search King, Inc. v. Google Tech., Inc.*, No. 5:02-CV-0]457, 2003.

<sup>176</sup> *Ibid.*, at 9.

<sup>177</sup> *Ibid.*, at 4.

<sup>178</sup> *Langdon v. Google, Inc.*, 474 F. Supp. 2d 622 (D. Del. 2007).

<sup>179</sup> *Ibid.*, at 629-630.

*v. GonzAlez*<sup>180</sup>, Mr Costeja GonzAles complained Google to delist the search results of his name which linked to a tiny newspaper referring to his past financial problems. The Advocate General, in this case, remarked that ‘an internet search engine service provider lawfully exercises (...) his (...) freedom of expression when he makes available internet information location tools relying on a search engine’.<sup>181</sup> However, the CJEU asserted that people have the right to have their name delisted from search results. The judgment contains no explicit reference to the freedom of expression of the search engine operators but states that ‘[data protection] rights override...the economic interest of the operator of the search engine’.<sup>182</sup>

The acknowledgement of search engines’ freedom of expression can also be seen in the media policy documents. In particular, the CoE stressed that ‘it essential that search engines be allowed to freely crawl and index the information that is openly available on the Web and intended for mass outreach’<sup>183</sup> and ‘search engines have freedom to crawl and index information available on the World Wide Web’<sup>184</sup>. However, it is not clear on the statements about to what extent public authorities can oblige selection intermediaries’ operation. Besides, there is no specific scope of to what extent these intermediaries can exercise this freedom. Notably, van Hoboken analyses that:

‘under Article 10 ECHR the search engine should be able to claim protection for its publication of references on its website as well as the process of crawling that makes it possible to offer a search engine in the first place...[and]...the choice of search engine operators how to select, rank, and present should be considered ... which deserves protection under the right to freedom of expression’<sup>185</sup>

For social media, none of the case law or the policy statement recognised the right to free speech of social media.<sup>186</sup> Besides, there is little discussion in the academic field about this issue. However, free speech of social media may be considered by comparing

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<sup>180</sup> Case C-131/12 *Google Spain SL and Google Inc. v Agencia Española de Protección de Datos (AEPD) and Mario Costeja Gonzalez* [2014].

<sup>181</sup> Case C-131/12 *Google Spain SL and Google Inc. v Agencia Española de Protección de Datos (AEPD) and Mario Costeja Gonzalez* [2014]. Opinion AG J55skinen [132].

<sup>182</sup> *Supra* 179, at 97.

<sup>183</sup> Recommendation CM/Rec(2012)3 on the protection of human rights with regard to search engines, 1.

<sup>184</sup> Recommendation CM/Rec(2014)6 on a Guide to human rights for Internet users, 16.

<sup>185</sup> Joris van Hoboken, *Search engine freedom* (Kluwer Law International, 2012) 210-211.

<sup>186</sup> See e.g. Recommendation CM/Rec(2012)4 on the protection of human rights with regard to social networking services.

to search engines. The automatically algorithmic provision of content recommendation by social media seems highly comparable to the technological nature of the search engines' selection and ranking from the index. Social media's operation makes information accessible and makes the decisions that entail a valuation of information and ideas. In other words, social media provides a subjective opinion by imposing the specific hierarchies on the relative accessibility of information through their services. By considering all these, social media produces information itself the same way as search engines. Therefore, this may imply that the operation of social media should be similarly protected under freedom of expression.

Even if the operation of selection intermediaries can be regarded under the protection of freedom of speech, this is only a half of the story when it comes to the regulation of these intermediaries. The most important question is what level of protection should be attributed to selection intermediaries. It is possible that the weight of protection could depend on the interest of their action and other public interests which are discussed in the following section.

b. Selection intermediaries and other public interests

This section discusses that although selection intermediaries can claim the protection from freedom of expression, their right can be restricted in order to safeguard other public interests (i.e. free speech of people and democratic value). It also illustrates the effect of selection intermediaries on the free speech of people and democracy. Since exposure diversity can be considered as the means to encourage free speech and democracy, the necessity to protect these public interests is the justification to regulate selection intermediaries to promote exposure diversity.

i. Free speech and right to receive information of individuals

Normally, all rights and liberties are not absolute and contain restriction clauses. The right to freedom of expression of selection intermediaries is not an exception. Among the lists of restriction that are mentioned in Article 10 of the ECHR<sup>187</sup>, the one which is relevant here is 'the protection of the rights of others'. The European Convention recognised 'the duties of everyone to the community and the limitation on rights in order

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<sup>187</sup> Article 10 (2) of the ECHR.

to secure and protect respect for the right of others'.<sup>188</sup> Considering the role of selection intermediaries as gatekeepers, 'the rights of others' are the free speech of people as an audience and as a speaker.

The interest of people as audiences under the right to freedom of expression can be characterised as the right to receive information.<sup>189</sup> The ECtHR puts it that 'the internet plays an important role in enhancing the public's access to news and facilitating the sharing and dissemination of information generally'.<sup>190</sup> However, the power of an individual is not as wide as the common perceptions might suggest. This is because selection intermediaries are the gatekeepers who grant people access to content. In the process of providing recommendation results, bias systematically occurs in every step to favour some opinions over others. In these cases, the range of choice and the conditions under which people can receive information depend on the operation previously taken by selection intermediaries. This distortion would not only affect the freedom to receive information but may also erode the free access for citizens to content with a diverse range of different voices.<sup>191</sup>

Therefore, in this context, free speech of individuals as an audience refers to the ability to use selection intermediaries to enhance the findability of diverse information, ideas and resources in the public networked information environment.<sup>192</sup> This is because freedom of expression is ineffective unless people sufficiently receive information in order to contribute ideas and participate in public discourse.<sup>193</sup>

For people as speakers or publishers of information on the Internet, they have the right to freedom of expression. This right also protects the means of communication. As the ECtHR notes, 'Article 10 [of the ECHR] applies not only to the content of

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<sup>188</sup> *Brown v Stott* [2001] 2 WLR 817 at 840.

<sup>189</sup> Freedom of expression protected in Article 11(1) of the Charter and Article 10 of the ECHR includes the right 'to receive and impart information and ideas without interference by public authority and regardless of frontiers'; See also ECtHR, *Tdrasig a Szabadsigjogok6rt v. Hungary*, app. no. 37374/05 (14 April 2009), at para. 26.

<sup>190</sup> ECtHR, *Fredrik Neij and Peter Sunde Kolmisoppi v. Sweden*, app. no. 40397/12 (19 February 2013), at p. 9.

<sup>191</sup> Joan Barata, 'The Different Concepts of Free Expression and its Link with Democracy, the Public Sphere and Other Concepts' in Monroe E. Price et al. (eds.), *Routledge Handbook of Media Law* (Routledge 20013) 125, 136.

<sup>192</sup> See e.g. Joris van Hoboken, *Search engine freedom* (Kluwer Law International, 2012) 212.

<sup>193</sup> For further discussion about free speech interest of audience see Part 1 section 3a 'exposure diversity and free speech'

information but also to the means of transmission or reception since any restriction imposed on the means necessarily interferes with the right to receive and impart information'.<sup>194</sup> In particular, in the context of selection intermediaries, the protected interests of speakers under the right to freedom of expression should encompass the right to reach the audience.<sup>195</sup> This right of speakers can be considered as the right to be treated fairly, reasonably and justifiably by selection intermediaries regarding a provision of diverse choices for people to choose. Besides, in the context of competing for attracting the users' attention on the Internet, to exist online is to be presented by selection intermediaries.<sup>196</sup> Therefore, recommendation results which are hierarchically ranked for a user may lock speakers into a fierce zero-sum competition for recognition.

In Europe, the protection of individual's freedom of expression is not only regarded as a negative right which prevents the state from exercising power to interference but it is also considered as a positive right. The government, in this view, has a positive role to promote free speech and to provide for the social conditions in which this free exercise can prosper. Moreover, this positive right covers both the relations between the public authorities and the private parties (vertical relation) and the relations between the private parties amongst each other (horizontal relation).<sup>197</sup> As the ECtHR states:

'Genuine, effective exercise of [the right to freedom of expression] does not depend merely on the State's duty not to interfere, but may require positive measures of protection, even in the sphere of relations between individuals.'<sup>198</sup>

Therefore, in this context, the ECHR doctrine calls for the government to protect a balance between the right to free speech of selection intermediaries and the freedom of expression of people including preventing a conflict between the rights of these private parties.

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<sup>194</sup> ECtHR, *Autronic AG v. Switzerland*, app. no. 12726/87 (22 May 1990), at para. 47.

<sup>195</sup> Jennifer Chandler, 'A Right to Reach an Audience' (2007) 35(3) *Hofstra Law Review* 1095.

<sup>196</sup> For further discussion about free speech interest of speakers see Part 1 section 3a 'exposure diversity and free speech'

<sup>197</sup> This theory of horizontal effect of fundamental rights is called '*Drittwirkung*' or 'third party effect'. See Pieter van Dijk et al., *Theory and Practice of the European Convention on Human Rights* (Intersentia 2006) 28-32.

<sup>198</sup> ECtHR, *Özgür Gündem v Turkey* (23144/93) [2000] [43]

Van Hoboken provides that ‘the most important example of a positive obligation in the European context of freedom of expression is the obligation to promote pluralism’.<sup>199</sup> As discussed in Part I section 3a, exposure diversity is the means to encourage free speech. In particular, exposure diversity is an indirect way for speakers having more chance to effectively disseminate their speech in the attention of the wide audiences. On the other hand, exposure diversity is the essential process to establish the environment where people can receive diversely opposite viewpoints and can be well-informed. Therefore, the necessity to protect free speech and the right to receive information of an individual is the justification to regulate selection intermediaries to promote exposure diversity.

In conclusion, free speech of selection intermediaries can be restricted in order to protect the right to free speech and the right to information of people. The protection of individual’s rights can be linked to the promotion of exposure diversity. As Raz argues, ‘freedom of expression can be supported as part of a pluralist argument for using the law to promote pluralism in the society’.<sup>200</sup> Therefore, the operations of selection intermediaries which are under the protection of freedom of expression can be regulated to ensure that exposure diversity is safeguarded.

ii. Democratic value

In addition to the restriction on ‘the protection of the rights of others’, free speech of selection intermediaries can be limited by the reason of a necessity in a democratic society.<sup>201</sup> Although the right to freedom of expression is of supreme important, individuals may abuse their right in order to be subversive of the idea of liberal democracy. The ECtHR, therefore, has ruled that if there was a ‘pressin social need’ in a particular circumstance, free speech can be restricted but should only be treated as necessary.<sup>202</sup> Specifically, the restriction has to balance on the basis of the proportionality

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<sup>199</sup> Joris van Hoboken, *Search engine freedom* (Kluwer Law International, 2012) 73.

<sup>200</sup> Joseph Raz, ‘Free Expression and Personal Identification’ (1991) 11(3) *Oxford Journal of Legal Studies* 303, 323.

<sup>201</sup> Article 10 of the ECHR

<sup>202</sup> ECtHR, *Sunday Times v UK* [1979] 2EHRR [275].

between the aims pursued and the effect of the measure. Besides, the reason and measure of the interference must be relevant and sufficient.<sup>203</sup>

The Internet contributes to the democratic culture by increasing the information that is available to us. The expanded access to information on the Internet increases the opportunities to participate in circulating information, commenting on it, or even modifying its content.<sup>204</sup> In other words, the Internet offers a space in which a rational communication might take place. Anyone can be a publisher, and anyone can access to the abundance of information and ideas unavailable in the tailored mass-media environment.<sup>205</sup> If we regard democracy as the organisations of citizens engaging socially and politically, the Internet's capacity to facilitating the political participation and the circulation of information can be seen as a pre-condition to creating a democratic society.

However, the power of selection intermediaries to distribute some opinions to people and ignore others affects the democratic participation on the Internet. The position of selection intermediaries as gatekeepers can control the flows of online information and the manipulation of public opinion which can lead to a concentration of power. This power threatens the democratic values which are the openness and the diversity of information flow.<sup>206</sup> This is because a fundamental principle of democratic systems is the ability to participate in the process of public decision-making with an equal opportunity to other members of the society.<sup>207</sup> In the Internet age, if citizens are to exploit these rights to the fullest, they must have the free access to information available online. Since democracy requires a well-informed, inclusive and a wide array of opinions, the online deliberative process should be free from the interference of the selection intermediaries.

The operation of selection intermediaries threatening democratic society is clearly illustrated in the Facebook scandal. This scandal emerged in May 2016 after Gizmodo accused that Facebook had bias against right-wing sources since it suppressed

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<sup>203</sup> ECtHR *Silver and others v. UK* [1983] 5EHRR [97]; ECtHR *Handyside v. the United Kingdom* [5493/72] [1976] [50].

<sup>204</sup> For further discuss see Yochai Benkler, *The Wealth of Networks* (YUP 2006) 212-272.

<sup>205</sup> Emily Laidlaw, *Regulating Speech in Cyberspace* (CUP, 2015) 17.

<sup>206</sup> Nicholas Garnham, 'The Media and the Public Sphere' in Peter Golding et al. (eds), *Communicating politics* (Holmes and Meier 1986).

<sup>207</sup> Jack M. Balkin, 'Digital Speech and Democratic Culture', (2004) 79 *New York University Law Review* 1, 33-45.

conservative news in its ‘trending topics’ feature.<sup>208</sup> The allegations in the Gizmodo article claimed the statement from the ex-workers that Facebook’s ‘trending topics’ bar had been tweaked so that it did not include more conservative news; even though the news stories of interest to conservative readers were organically trending among the site’s users. This scandal reflects the biases of Facebook’s workers and the institutional imperatives of the corporation which has influenced behind algorithms. Imposing human editorial values onto algorithms makes Facebook operates like a traditional newsroom. Interestingly, Facebook announced that in order to reduce bias, it had laid off its contractors who were hired to write and edit short descriptions that accompanied each trend in the attempt that this would make the Trending feature more automated; nevertheless, a few days later a fake story headlined still appeared on the list of trending stories.<sup>209</sup>

This scandal is not the only case. There are many accusations that Facebook blocks the individual member pages reflecting a conservative point of view.<sup>210</sup> For example, in 2013, a Facebook page for the conservative website ‘Chicks on The Right’ was shut down (with a notice that it ‘violated the site’s standards’) after posting a message criticising White House Press Secretary Jay Carney.<sup>211</sup> In 2015, 12-year-old’s account was locked due to ‘suspicious activity’ after posting a video where he agreed with former NYC Mayor Giuliani’s criticism of President Obama.<sup>212</sup> Lastly, Joe Newby, a blogger, reported that Facebook took down the ‘2 Million Bikers to DC’ page after the page comments that a number of bikers who attended the Million Muslim March was much less than the official count.<sup>213</sup>

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<sup>208</sup> Michael Nunez, ‘Former Facebook Workers’ (Gizmodo, 5 September 2016) <<http://gizmodo.com/former-facebook-workers-we-routinely-suppressed-conser-1775461006>>

<sup>209</sup> Olivia Solon, ‘In firing human editors, Facebook has lost the fight against fake news’ (The Guardian, 29 August 2016) <<https://www.theguardian.com/technology/2016/aug/29/facebook-trending-news-editors-fake-news-stories>>.

<sup>210</sup> For further discuss see Jeff Dunetz, ‘Media Ignoring a MAJOR Part of the Facebook Scandal’ (MRCTV, 17 May 2016) <<http://www.mrctv.org/blog/mainstream-media-ignoring-major-part-facebook-scandal>>; Conservative Firing Line <<http://conservativefiringline.com/?s=facebook>>.

<sup>211</sup> Erik Wemple, ‘Fox News Radio guy’ (The Washington Post, 1 July 2013) <[https://www.washingtonpost.com/blogs/erik-wemple/wp/2013/07/01/fox-news-radio-guy-facebook-has-problem-with-conservatives/?utm\\_term=.662f1bbd9c77](https://www.washingtonpost.com/blogs/erik-wemple/wp/2013/07/01/fox-news-radio-guy-facebook-has-problem-with-conservatives/?utm_term=.662f1bbd9c77)>

<sup>212</sup> Foxnews, ‘12-Year-Old Conservative Superstar Defends Giuliani’ (Foxnews, 1 May 2015) <<http://insider.foxnews.com/2015/03/01/watch-12-year-old-conservative-superstar-defends-giuliani-blasts-obama>>

<sup>213</sup> Joe Newby, ‘Facebook shuts down 2 Million Bikers to DC page over innocuous opinion’ (Conservative Firing Line, 12 April 2016) <<http://conservativefiringline.com/facebook-shuts-down-2-million-bikers-to-dc-page-over-innocuous-opinion/>>

If we want to avoid the incidents which threaten democracy such as those described above, there should be a development of the regulation or specific rule about the governance of the selection intermediaries' operation. As discussed in Part I section 3b, exposure diversity assists the structure of democratic society. By regulating selection intermediaries to promote exposure diversity, it prevents the corruption and the abuse of power in controlling society. It also encourages people to be well-informed and to be able to participate fully in the democratic discourse.

Besides, the promotion of exposure diversity includes the prohibition of unreasonable restriction of access to information and a support of the provision of access to sufficient information. In other words, one of the measures to achieve exposure diversity is the imposition of certain obligation on selection intermediaries to provide people with actual ability to access to diverse information on the Internet.<sup>214</sup> The more information people can access to in their common life, the greater possibility for them to face alternatives of one's views and to consume greater variety of content. Constraints of information accessibility can obviously affect democracy and the diversity of content people are exposed to. Therefore, the regulation of selection intermediaries to achieve exposure diversity is justified in order to safeguard the democratic society.

In conclusion, the operations of selection intermediaries are under the protection of freedom of expression under the US First Amendment and the Article 10 of the ECHR. However, since the operation of selection intermediaries can conflict with the public interests in an individual's free speech and the democratic value, the government can restrict their rights in order to safeguard these public interests. According to Article 10 paragraph 2 of the ECHR, the exercise of the right to free speech carries with it duties and responsibilities and may be subject restrictions. Regulating for exposure diversity can be a restriction on the free speech right of selection intermediaries as exposure diversity are necessary in a democratic society and for the public interest. Therefore, this necessity to protect individuals' free speech and the democratic value is the justification to regulate selection intermediaries to promote exposure diversity.

c. Free speech of selection intermediaries and media freedom

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<sup>214</sup> See Chapter 4 Part 1 'The role of selection intermediaries in providing access to information'

Apart from the reason to protect other public interests in the previous section, this section also puts the analysis further that free speech of selection intermediaries should have the duty and responsibility similar to media freedom. This is because the position of gatekeepers of selection intermediaries resembles the position of traditional media. Therefore, selection intermediaries are not only limited their action to promote exposure diversity but also have a positive role in supporting exposure diversity. This is another justification for the regulation of selection intermediaries.

i. The concept of media freedom

In order to impose any duties and responsibilities on selection intermediaries, these intermediaries must carry out activities that are important for the function of society. The analogy, therefore, will be made from the recognition that traditional media carries out the importance to society. The concern of the duty and responsibility for both the traditional media and selection intermediaries is rooted in their shared role as the conveyors of information and the facilitators of public discourse. This role as gatekeepers provides the distinction between media freedom (e.g. editorial control and freedom of the press) and the freedom of expression enjoyed by individuals. It also includes the provision of specific duty and the privilege in addition to freedom of speech. In the broad sense, media freedom should be entitled to all form of media: not only the established press but also the broadcasting media and the new electronic media.

The special status of media and media freedom derives from the nature of media power and the potential it has to impact on society. The obvious power wielded by the media is its capacity to communicate to a large audience. They exercise power in gathering, processing and interpreting mass information to mass people.<sup>215</sup> Mass media, especially press and broadcasting, also play a vital role in influencing public opinion. As gatekeepers, they have the ability to allow or censor others to criticise and inform of the events. In the modern world, if a particular individual or a group of individuals are denied access to the press to promote their views, their ability to reach audiences is diminished.<sup>216</sup> In the *Stoll* case, the ECtHR establishes the importance of media in the present-day conditions:

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<sup>215</sup> Bernd Holznel, 'Internet freedom, the public sphere and constitutional guarantees' in Monroe Price et al. (eds.), *Routledge Handbook of Media Law* (Routledge 20013) 141, 142.

<sup>216</sup> Lord Justice Leveson, *An Inquiry into the Culture* (The Stationary Office 2012) 77.

‘...given the influence wielded by the media in contemporary society: not only do they inform, they can also suggest by the way in which they present the information how it is to be assessed. In a world in which the individual is confronted with vast quantities of information circulated via traditional [media] ... monitoring compliance with journalistic ethics takes on added importance.’<sup>217</sup>

The ECtHR has consistently tied the special status of the media to its role in the public interest. Specifically, the traditional media are the primary source of news and information for citizens to participate in the democratic society. They contribute to the free flow of communications which is necessary to the public debate. Therefore, the public interest in media freedom is the standard of public communication that ‘allow readers, listeners and viewers to gain information and form judgements, and so as to participate in social, cultural and democratic life’.<sup>218</sup>

With this crucial position of media in society, media freedom (e.g. editorial control and freedom of the press) is entitled to some legal privileges under the protection of Article 10 of the ECHR. Particularly, media freedom has a high level of the admissibility of interferences and the margin of appreciation is limited. Generally, when dealing with the media, the ECtHR will restrictively apply the second paragraph of Article 10:

‘The most careful scrutiny on the part of the court is called for when... the measures taken or sanctions imposed by the national authority are capable of discouraging the participation of the press in debates over matters of legitimate public concern [...].’<sup>219</sup> and

‘The punishment of a journalist for assisting in the dissemination of statements ... should not be envisaged unless there are particularly strong reasons for doing so.’<sup>220</sup>

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<sup>217</sup> ECtHR, *Stoll v. Switzerland* [69698/01] [2007] [104]; For the US See *Associated Press v. United States* 326 U.S. 1 (1945) (‘In addition to being a commercial enterprise, it [the press] has a relationship to the public interest unlike that of any other enterprise for profit . . . The business of the Press . . . is the promotion of truth regarding public matters by furnishing the basis for an understanding of them.’)

<sup>218</sup> Lord Justice Leveson, 61-62.

<sup>219</sup> ECtHR, *Bladet Tromsø and Stansaa v. Norway* [21980/93] [1999] [64]

<sup>220</sup> ECtHR, *Jersild v. Denmark* [15890/8923] [1994] [35]

Moreover, media freedom includes special rights beyond freedom of expression which are essential for the media to enable its role and unique provision.<sup>221</sup> These rights are distinct depending on the different types of media and its contribution of information. For example, the traditional media who exercises editorial control has privilege defences to defamation claims such as an accurate report of certain public occasions.<sup>222</sup> The press has a privilege not to disclose their sources of information unless an authorisation obtained by the application to the court.<sup>223</sup> Internet access providers can claim a protection from public authorities' interference which obliged them to restrict from transmitting information or imposing them to block or filter content.<sup>224</sup>

The most important aspect of media freedom regarded in this thesis is that media freedom has the duty and responsibility to serve the public. In other words, media freedom is not a right to be solely advantaged by the media themselves but it is a right exercised on behalf of everyone. Media freedom is protected only because it promotes certain values: particularly, enriching public discourse, providing people with a wide variety of information and ideas, and safeguarding the value of free speech.<sup>225</sup> This duty and responsibility originate from the essential role of media in disseminating ideas and information. As the ECtHR has repeatedly referred to media freedom and the task of informing the public:

‘[the press] affords the public one of the best means of discovering and forming an opinion of the ideas and attitudes of political leaders.’<sup>226</sup> and ‘the public has a right to receive information as a corollary of the specific function of journalists, which is to impart information and ideas on matters of public interest.’<sup>227</sup>

The ECtHR has tied the protection of media freedom to the interests of readers in general. The court has also stressed the importance of media freedom due to the role

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<sup>221</sup> For further discuss see Eric Barendt, *Freedom of speech* (OUP, 2005) 425-449.

<sup>222</sup> Section 7 of the Defamation Act 2013.

<sup>223</sup> Section 10 of the Contempt of Court Act 1981; The Police and Criminal Evidence Act 1984; *Ashworth Hospital Authority v MGN Ltd* [2002] 4 All ER 193, 210.

<sup>224</sup> See e.g. ECtHR, *Autronic v. Switzerland* [12726/87] [1990]; ECtHR, *Mueller and others v. Switzerland* [10737/84] [1988].

<sup>225</sup> Eric Barendt, *Freedom of speech* (OUP, 2005) 421-424.

<sup>226</sup> ECtHR, *Lingens v. Austria* [9815/82] [1986]

<sup>227</sup> ECtHR, *Guerra and others v. Italy* [14967/89] [1998]; For the US See *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367 (1969) (‘[I]t is the right of the viewers and listeners, not the right of the broadcasters, which is paramount. [...] It is the right of the public to receive suitable access to social, political, esthetic, moral, and other ideas and experiences which is crucial here.’)

of media as gatekeepers. These reasons imply that media freedom serves the interests of others than the media institution. The essence of media freedom is not an interest in free self-expression but in free communication and free flow of knowledge. Therefore, the ECtHR has made it clear that media freedom is guaranteed only inasmuch as it contributes to the formation of public opinion. It is recognised as an instrument to promote people for receiving diversity of ideas and sources of information.<sup>228</sup> If the media is to function in a way not in accordance with these concerns, there will be less reason to protect it against interferences.

ii. Free speech of selection intermediaries as media freedom

The Internet has transformed how we communicate. As discussed in Part II section 1, selection intermediaries are the new gatekeepers in our information society. They do not only inform people about viewpoints but also influence the accessibility of people to available information. For this reason, selection intermediaries, at the present, become the sources people use to consume news and the current affairs the same way as people used newspapers and broadcastings in the past. The position of gatekeepers of selection intermediaries resembles the position of the traditional media in three ways:

First, selection intermediaries have the capacity to reach a wide audience the same way as the communication to a large audience of the traditional media. As selection intermediaries have become the information gatekeepers, they control the communication structure of the Internet. Since an online communication of people depends upon the complex electronic information and the communication networks, selection intermediaries are now the portals through which the information on the Internet is experienced.<sup>229</sup> Moreover, selection intermediaries do not only control the information flow to people like the mass media but also separately respond to what information is possibly accessed to the individual request of each audience.

Second, selection intermediaries can exercise power to lead certain views dominating the public sphere and other views being squeezed out. Although these new intermediaries mostly operate by the algorithms not by the human editorial control like

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<sup>228</sup> Judith Lichtenberg, 'Foundations and limits of freedom of the press' in Judith Lichtenberg (eds.), *Democracy and the Mass Media* (CUP 1990) 104.

<sup>229</sup> See James Webster, 'The Duality of Media' (2011) 21(1) *Communication Theory* 43; Emily Laidlaw, 'Private Power, Public Interest' (2008) 17 (1) *Int.J.L.Info.Tec* 113.

the press, a bias systematically occurs in every process of providing particular content recommendations to favour certain types of content and ignore others.<sup>230</sup> Algorithms are not neutral: in fact, they are full of human involvement in making decisions on what have to be made to produce something. Human can take part, for instance, as engineers who design algorithms or curators who turn the output of the algorithms into something presentable. Consequently, the provision of content that selection intermediaries make eventually have human choices behind it. The result recommendations people see is not the output of an algorithm by itself, but rather of an effort that combined human activity and computational analysis together to produce it. As Naughton comments:

‘Any algorithm that has to make choices has criteria that are specified by its designers. And those criteria are expressions of human values. Engineers may think they are “neutral”, but long experience has shown us they are babes in the woods of politics, economics and ideology.’<sup>231</sup>

Noteworthy, selection intermediaries normally have bias regarding their business incentive. If selection intermediaries sense a threat to their business (or their affiliated content providers) from an innovation outside his control, they may exercise their power to acquire or squash competitors; for example, selection intermediaries may prioritise their own goods ahead of or instead of those of their competitors.<sup>232</sup> Also, companies will always act to maximise profits: they will often do so at the expense of their content providers by way of price discrimination. If a content provider on their service is seen to reap significant profits on the back of the network, it is in the short-term interest of the selection intermediaries to ransom network access for a share of those profits.<sup>233</sup> Therefore, selection intermediaries do not operate objectively but have bias to

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<sup>230</sup> See e.g. Burguet Roberto, Caminal Ramon and Ellman Matthew, ‘In Google we trust?’ (2015) 39 *International Journal of Industrial Organization* 44, 52.

<sup>231</sup> John Naughton, ‘Here is the news’ (The Guardian, 15 May 2016) <<https://www.theguardian.com/commentisfree/2016/may/15/facebook-instant-articles-news-publishers-feeding-the-beast>>

<sup>232</sup> See e.g. Twitter don’t want third-party developers to mimic Twitter’s own experience with their native apps so Twitter called on all third-party developers to stop building Twitter clients: ‘more specifically, developers ask us if they should build client apps that mimic or reproduce the mainstream Twitter consumer client experience. The answer is no’. (MG Siegler, ‘Twitter Drops the Ecosystem Hammer’ (Techcrunch, 12 March 2011) <<https://techcrunch.com/2011/03/11/twitter-ecosystem-guidelines/>>)

<sup>233</sup> See e.g. Facebook exerts their platform authority by forcing Zynga (the social gaming company on Facebook) to give up 30% of their revenue to Facebook. (Liz Gannes, ‘Why Facebook and Zynga Declared a 5-Year Truce’ (GIGAOM, 18 May 2010) <<https://gigaom.com/2010/05/18/why-facebook-and-zynga-declared-a-5-year-truce/>>)

favour certain types of content dominating the public attention and degrade some content from the attention of people.

Selection intermediaries do not produce content themselves like the publishers; however, their role is directly related to the way in which they actively select and facilitate the findability of information.<sup>234</sup> This process can be compared to the editorial selection of the press. Writers of columns in the press can choose what they consider important to be presented in the newspapers. In the environment of scarcity resources, a few selections included in the expression of the press will become the widespread views to the public. In contrast, the present problem in the environment of an abundance information is a high cost to get an attention from the public. For this reason, what is excluded from the recommendation of selection intermediaries will not appear in the sight of consideration.<sup>235</sup> Therefore, the similarity between the operation of selection intermediaries and the press is the ability to marginalise certain opinions to be less trivial in the discursive arenas.

Lastly, the operation of selection intermediaries contributes to the matters of public interests. Selection intermediaries are not a simple business but have a political dimension to sustain the democratic society the same way as the traditional media. Their management to filter, categorise and interpret information for the public has affected the accessibility of information and ideas online. This action is important since the practical free speech of people is deeply tied to the operation of selection intermediaries regarding what kind of access and opportunities they offer to citizens.<sup>236</sup> Besides, the information selectively presented by selection intermediaries can shape an individual user's experience and the public opinion.<sup>237</sup> Therefore, selection intermediaries are the main social institution and the principal means of public expression in the contemporary society.

Selection intermediaries, therefore, are in the position of gatekeepers which are as crucial as the traditional media. Since the operation of selection intermediaries

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<sup>234</sup> See Joris van Hoboken, *Search engine freedom* (Kluwer Law International, 2012) 321.

<sup>235</sup> The concerns about this influence of selection intermediaries have been discussed in Part II section 1d. and section 2b.

<sup>236</sup> See Part II section 2b.

<sup>237</sup> See Niva Elkin-Koren, 'Let the Crawlers Crawl' (2001) 26(2) *University of Dayton Law Review* 179, 185-186; Guy Hoskins, 'Meet the Habermasses' (2013) 9 *The International Journal of Technology, Knowledge, and Society* 25.

encourages the public interests in the free dissemination of information for individuals and the public, selection intermediaries should be under the protection of media freedom. Under media freedom, they, therefore, can strengthen their claims against the government to not interfere or downgrade their contribution of communication underlying the interests of the audiences and the content providers.

Nevertheless, it should be noted that the acknowledgement of media freedom does not mean that selection intermediaries have freedom of the press. This is because a free press is tied to the specific role of the press and journalist as the ‘public watchdog’.<sup>238</sup> Similarly, a right of editorial judgement in traditional media can only be claimed by the editors who are in the role to determine the content of newspapers or to schedule the broadcasting programme.<sup>239</sup> As mentioned in the previous section, the special rights of media freedom beyond free speech are distinct (and various) depending on the different types of media. Selection intermediaries can claim this right only to essentially enable its unique role. For example, van Hoboken analyses that search engines have a right to referencing information as well as the process of crawling, selecting and ranking that make it possible to offer a search engine in the first place.<sup>240</sup> However, the detail and scope of the privilege of selection intermediaries under media freedom are not the focus of this thesis.

The main issue here is that the exercise of media freedom by selection intermediaries undertakes the specific duties and responsibilities. The acknowledgement of the media freedom of selection intermediaries does not imply that such right would be unlimited. In contrast, media freedom of selection intermediaries should be restricted because of the duty and responsibility to ensure people’s free speech and the freedom to receive information. This is similar to the reason why freedom of the press should be tied to the duty and responsibility.<sup>241</sup> By regarding the essential role of the press in contributing the information and ideas to the public debate, the ECtHR has made it clear that press freedom is recognised in order to safeguard the interest of people. As states in the case of *Handyside* that:

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<sup>238</sup> Or as ‘the eyes and ears of the general public’. See *A-G v. Guardian Newspapers Ltd* [1990] 1 AC 109,183, CA.

<sup>239</sup> Eric Barendt, *Freedom of speech* (OUP, 2005) 418.

<sup>240</sup> Joris van Hoboken, *Search engine freedom* (Kluwer Law International, 2012) 182-194.

<sup>241</sup> See section 2c.i ‘the concept of media freedom’

‘...whoever exercises his freedom of expression undertakes ‘duties and responsibilities’ the scope of which depends on his situation and the technical means he uses. The Court cannot overlook such a person’s “duties” and “responsibilities” when it enquires...whether “restrictions” or “penalties” were conducive to the “protection of morals” which made them “necessary” in a “democratic society”.’<sup>242</sup>

For this reason, the operations of selection intermediaries under the media freedom have the duty and responsibility based on the interest of people, especially in freely convey and receive diverse viewpoints.

iii. The duty and responsibility of selection intermediaries: promoting exposure diversity

As analysed above, selection intermediaries are crucial gatekeepers like the traditional media. Regarding the position of selection intermediaries as gatekeepers, free speech of selection intermediaries should have the duty and responsibility similar to media freedom. Under media freedom, they then have the duty and responsibility to serve the public. The ground for protecting media freedom of these intermediaries ultimately lies in the public interest of the findability of information on the Internet. In other words, selection intermediaries’ freedom derives from the ideas underlying freedom of expression and the communicative liberties of the networked information environment as a whole. As Shapiro commented:

‘those who control access to information have a responsibility to support the public interest, these gatekeepers must assume an obligation as trustees of the greater good.’<sup>243</sup>

Traditionally, the positive duty of media institution is different between the three kinds of media: the print media, the access service provider, and the broadcasting. For example, the broadcasting media has usually been more strictly regulated than the press.<sup>244</sup> However, it is beyond the scope of this thesis to analyse in detail the broad range of the duty and which model of media institution properly applied to selection

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<sup>242</sup> ECtHR, *Hachette Filipacchi Associes v. France*, § 42

<sup>243</sup> Andrew Shapiro, *The Control Revolution* (Public Affairs, 1999) 225; See also Jerome Barron, ‘Access to the Press’ (1967) 80 *Harvard Law Review* 1641,1655-1656.

<sup>244</sup> See David Goldberg et al., *Media Law and Practice* (OUP, 2009).

intermediaries.<sup>245</sup> Rather, for the purpose of this thesis, this section will specifically consider the positive duty of the traditional media and selection intermediaries to encourage media plurality which is underlying freedom of speech and the democratic value.

The relationship between media freedom and media plurality is twofold. On the one side, media plurality supports media freedom: the government has to take measures to protect an independent media in order to guarantee media plurality.<sup>246</sup> On the other side, media plurality constitutes legitimate aim justifying an interference with media freedom: i.e. media plurality is a legal obligation imposing a responsibility on media freedom. For instance, the ECJ has recognised media plurality as an overriding requirement regarding general interest to restrict the freedom to provide media service.<sup>247</sup> Also, the ECJ acknowledged that the maintenance of media plurality is connected to freedom of expression and media plurality in the aspect of cultural policy constituting the justification to limit media freedom.<sup>248</sup>

The traditional media has a positive duty regarding media plurality. One goal is to ensure that people are well-informed, have their voices heard, and receive diverse views reflected in public debate.<sup>249</sup> These are the fundamental factor for people to have a right to engage actively as participants in civic discourse.<sup>250</sup> Therefore, the regulation on media is designed to promote media plurality; including different aspects such as diversity of ownership, variety in the source of information and providing the range of available outputs or contents. For example, the broadcasting media is obliged to provide a wide variety of types of programme<sup>251</sup> and a range of diverse viewpoints<sup>252</sup> to enable different groups to disseminate their information and idea via broadcasting. This includes a

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<sup>245</sup> For further discuss in the context of search engines see Joris van Hoboken, *Search engine freedom* (Kluwer Law International, 2012).

<sup>246</sup> ECtHR, *Informationsverein Lenria and others v. Austria*

<sup>247</sup> See e.g. ECJ, Case C-148/91 ECR I-00487 *Veronica Omroep v Commissariaar voor de Media* [1993] [10]; Case C-368/95 ECR I-03689 *Familiapress v Heinrich Bauer Verlag* [1997] [26].

<sup>248</sup> ECJ, Case C-353/89 ECR I-04069 *Commission v Netherlands* [1991] [30].

<sup>249</sup> Denis McQuail, *Media Accountability and Freedom of Publication* (OUP, 2003) 128.

<sup>250</sup> Cass Sunstein, *Republic.com 2.0* (PUP 2009) 110.

<sup>251</sup> E.g. The provision of listed events of major importance for society (Article 16 of the AVMSD; Section 299 of CA 2003); The provision of news and current affairs programmes on public service television (Section 279 of CA 2003)

<sup>252</sup> E.g. Programming quotas for independent productions (Section 277 and 309 of CA 2003); Programming quotas for original productions (Section 278 of CA 2003); Regional programme-making for specific broadcasting (Section 286-288 of CA 2003)

positive obligation of broadcasters to grant transmission time to third parties for the purpose of reflecting a variety of opinion in their channels under certain circumstance such as in the time of an election.<sup>253</sup>

The press and broadcaster are also regulated to publish a right to reply for the persons attacked by the media.<sup>254</sup> Right to reply aims to reflect a wide range of views and an interest of minorities (or other parts of the population). Besides, both the newspapers and broadcasters have to comply with the standard of impartiality.<sup>255</sup> The ECtHR principally confirms that employed journalists should not be prevented from imparting a plurality of news and opinions.<sup>256</sup> The court states that journalists are protected from self-censorship when approaching issues which are delicate for the owners of media company. The court further observed that it is the government itself that must be the ultimate guarantor of pluralism and that it has a duty to ensure that the public has access through television and radio to impartial and accurate information and a range of opinions and comments, reflecting the diversity of political outlook within a country. Impartiality requires domestic provisions within media entities to guarantee internal diversity and editorial independence. To conclude, traditional media has a particularly positive role in enhancing media plurality.

Selection intermediaries should also have a positive duty to promote media plurality similar to the traditional media, especially exposure diversity. This is because the value of media plurality links to the duty and responsibility of selection intermediaries underlying free speech and democratic value as discussed in Part I. Selection intermediaries are the gatekeepers in the Internet world which directly influence diversity of content. These new gatekeepers control the findability of content: they can make content detectable, noticeable, and available in the attention of users. Influencing by filters, ranking and targeted recommendations, these new selection intermediaries determine the consumption behaviour of people. They do not simply locate content but construct and organise the meaning of information. They play an important role in controlling an access to information in democratic participation by being the platform for

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<sup>253</sup> See e.g. *VgT Verein gegen Tierfabriken v Switzerland* (No 1) [2001]; *CBS, Inc. v FCC*, 453 US 367 (1981).

<sup>254</sup> Clause 2 of the Press Complaints Commission Code (2011); Clause 7.11 of the Ofcom Broadcasting Code.

<sup>255</sup> Clause 1 of the Editors' Code of Practice; Section 320 of CA 2003.

<sup>256</sup> ECtHR, *Manole and others v Moldova* [2009] [100].

the content providers to meet users. At the same time, they function as editor-like by selecting and ordering speech of media speakers to catch people's attention. Speech which is excluded in the content recommendations can be said that it is not presented in a public discussion. These intermediaries' operation of providing content recommendations affect the absolute amount of media plurality in the Internet.

Selection intermediaries make decisions by which the billions of messages that are available in the world get cut down and transformed into the hundreds of messages that are presented in their platforms. The operation of selection intermediaries can be considered as a pre-selection process of the amount of different types or aspects of information. In other words, the content recommendations by selection intermediaries determine the actual choices which are available for users to choose. If the concerns of exposure diversity are about the process of making choices from various content which is actually available to individuals, exposure diversity would depend on the selection intermediaries' process of providing choices. Therefore, it is clearly illustrated that selection intermediaries play a crucial role in expanding or diminishing the diverse content people are exposed to.

As analysed the relation between selection intermediaries, exposure diversity and free speech in this chapter, the recommendation results provided by selection intermediaries can be considered as an indication of the level of diverse content exposed to people. Ultimately, it is the fundamental democratic interest of people to become an informed citizen by consuming diverse opinions available on the Internet. Therefore, the legal duty is justified to be imposed on selection intermediaries in order to have a positive role to encourage exposure diversity. Particularly, the duty and responsibility of selection intermediaries include the positive role in which information and ideas are being presented in view of the difference.

In particular, selection intermediaries should be obliged to present diverse viewpoints on particular social issues in their recommendation results. They should also be regulated to prioritise exposure diversity regarding various types of sources of information such as official government, individual blog/page and group discussion forums. These types of sources of information will provide the consumption of people with different possible perspectives. In addition, selection intermediaries may develop their operation that satisfies the value of serendipitous encounters for the audience. The

positive duty of selection intermediaries should also include the compliance with the standard to enhance media literacy of citizens. All these measurements imposed on selection intermediaries to achieve exposure diversity will be examined in Chapter 4.

In conclusion, free speech of selection intermediaries, like media freedom, is recognised to promote the interest of the public rather than to protect the interest of themselves. By respecting free speech of people and democratic value, the legislation enacted to support the value of exposure diversity is justified.

To summarise, this chapter illustrates that exposure diversity has now become a crucial aspect of media plurality concerns. In the Internet age, the problem may not be the scarcity of source and content made available but rather the concern of filter bubble and audience polarisation. The solution to this problem is the encouragement of people to be exposed to or consume diverse media content. Exposure diversity is also a crucial factor of freedom of speech, democratic society, and personal autonomy. These public interests are the justification why exposure diversity should be under the concern of media law and policy.

The chapter then further examines that the possible concrete measure to achieve exposure diversity is the regulation of selection intermediaries to promote this goal. This is because the operation of selection intermediaries has the influence on the absolute amount of different types or aspects of information that viewers can choose from. Exposure diversity is relevant to the process of making choices from the various content actually available to an individual. Therefore, the operation of selection intermediaries can be considered as an indication of a wide range of diverse content exposed to the audience.

Moreover, this chapter provides two justifications why the selection intermediaries should be regulated in order to promote exposure diversity. The first justification is the necessity to protect free speech and democratic value. The right of selection intermediaries can be restricted since exposure diversity can be considered as a means to encourage these public interests. Another justification is the duty and responsibility of selection intermediaries under media freedom. Free speech of selection intermediaries has the positive role to serve the interest of the public rather than to protect

the interest of themselves. Therefore, the regulation imposed on selection intermediaries to encourage exposure diversity is justified.

To what extent selection intermediaries can be regulated to encourage exposure diversity and what possible concrete legal instruments should be applied will be further discussed in Chapter 4. Before discussing the proposal issues, the next chapter will examine the problems of the application of the current laws and regulations in the achievement of exposure diversity.

**Chapter 3**  
**Limitations of the existing model of media regulations to achieve exposure diversity**

As discussed in Chapter 2, in the environment of overflowing available information, the significant question is whether people choose media content diversely. This is because, with the abundance of information, what people see is not equal to what made available. Since people cannot consume all information presented to them, they rely on new online selection intermediaries (i.e. search engine and social media) to assist them to find relevant information from infinite information. Selection intermediaries have the power to control the way diverse content being exposed to people on the Internet. Therefore, selection intermediaries should be regulated in order to encourage diversity of exposure.

There is an attempt to put forward traditional tools to regulate these selection intermediaries in order to protect exposure diversity. However, to what extent can the existing tools be applied to selection intermediaries in the new media environment? This chapter, therefore, analyses the problems of the application of the current laws to safeguard exposure diversity. It is divided into two parts. Part I analyses existing specific media laws (i.e. the AVMSD and the UK Communications Act 2003) and their problems to control the power of selection intermediaries and to protect exposure diversity. Then, Part II examines the limitation of competition law in regulating selection intermediaries to promote exposure diversity. This chapter will illustrate that the current existing laws (both media law and competition law) are not adequately developed to be applied to regulate these new intermediaries and protect exposure diversity.

**Part I: The problems of the existing media law**

This part examines whether the media lawmakers and policymakers have sufficiently considered the issues of exposure diversity and the concerns of new selection intermediaries. It will focus on two issues: to what extent exposure diversity is recognised in the media policy and reflected in the current laws? and whether it is effective and suitable to apply the existing law to selection intermediaries? This part will critically evaluate the existing specific media regulations and the media plurality policies. It will

focus on the regulations of the EU and the UK. It will consider the AVMSD, the UK Communications Act 2003 and the relevant policy documents from the EU, CoE and Ofcom.

This part is divided into two sections. The first section discusses the position of exposure diversity in media law and policies. It will illustrate that the current existing laws and policies have traditionally reflected the focus on diversity of sources and diversity of content, rather than diversity of exposure. The second section then examines selection intermediaries and their legal obligation in media law. The analysis leads to the conclusion that traditional media are still the main legal concerns rather than search engines and social media. The discussions in the two sections lead to the conclusion that the importance of selection intermediaries in promoting people to expose to diverse content is still the issue that has rarely been discussed.

### 1. Exposure diversity and media law

This section assesses whether the existing regulatory measures have promoted exposure diversity. It will examine the traditional media policies and different legal approaches adopted by the EU and the UK to safeguard media plurality. It is divided into four subsections. First, it starts by exploring the underlying framework or mindset of media policy regarding media plurality concept. What aspects of media plurality have been recognised by media policymakers and reflected in regulations? Do policymakers consider exposure diversity? Then, the second subsection will discuss the measures regarding media plurality in existing media laws. Particularly, the discussion focuses on the current AVMSD and the UK Communications Act 2003. It will analyse whether these regulations have measures to effectively promote exposure diversity. Lastly, the last two subsections will examine the new regulations which is in the process of amendment (i.e. the proposal revision of the AVMSD and the UK proposal measurement framework for media plurality) and the direction of media policy regarding exposure diversity in the future.

#### a. Exposure diversity and the underlying media policy

Exposure diversity has traditionally been neglected from the consideration about media plurality. For decades, the media policies have presented concerns about media plurality merely in term of a wide range of outlets and viewpoints made available. In other

words, from the media policymakers' viewpoint, the issues about media plurality are the need to ensure source diversity and content diversity. This has been done throughout a series of media pluralism related documents both at the UK and the European level. For example, the CoE states in the Recommendation on Measures to Promote Media Pluralism (1999) that:

‘... the notion of “media pluralism” should be understood as diversity of media supply, ... as well as a diversity of media types and contents (views and opinions) made available to the public...’ and

‘...pluralism is about diversity in the media that is made available to the public, which does not always coincide with what is actually consumed.’<sup>1</sup>

In other words, the CoE, whose recommendations have significantly influenced media plurality policies in Europe, explicitly exclude the aspect of diverse content people actually consumed from its definition of media plurality. Consequently, a wide range of recommendations on the measures to promote media plurality all deal with either structural or ownership diversity or content diversity.<sup>2</sup>

In the UK, Ofcom also defines in 2012 the desired outcomes of media plurality as ‘ensuring there is a diversity of viewpoints available and consumed across and within media enterprises and preventing any one media owner or voice having too much influence over public opinion and the political agenda’.<sup>3</sup> The traditional assumption underlying media policy is that increasing diversity of source will lead to an increase of content diversity.<sup>4</sup> Furthermore, it has often been assumed that promoting diversity of

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<sup>1</sup> Recommendation No. R (99) 1 on measures to promote media pluralism [1999] 6.

<sup>2</sup> E.g. Recommendation CM/Rec(2007)2 on Media Pluralism and Diversity of Media Content; European Commission, ‘Media pluralism in the Member States of the European Union’ (Staff Working Document, 16 January 2007); House of Lords, ‘Media convergence’ (Select Committee on Communications 2nd Report of Session 2012–13, 27 March 2013); House of Lords, ‘Media plurality’ (Select Committee on Communications 1st Report of Session 2013–14, 4 February 2014).

<sup>3</sup> Ofcom, ‘Measuring media plurality’ (Ofcom, 5 November 2015) 1.

<sup>4</sup> E.g. United Kingdom, Department of National Heritage, ‘Media Ownership: The Government’s Proposals (Green Paper)’ (1995); CoE, Steering Committee on the Mass Media, ‘Report on Media Pluralism in the Digital Environment’ (2000); However, the presumption about the relationship between source diversity and content diversity are questioned and challenged. For further discussion see e.g. Mara Einstein, *Media Diversity* (LEA 2004); Philip Napoli, ‘Deconstructing the Diversity Principle’ (1999) 49(4) J.Com 7.

available content will automatically result in a greater diversity of content consumed by people.<sup>5</sup>

As analysed above, the media policies underlying existing media laws in Europe and the UK do not provide any concerns that intend to directly regulate the way diverse content is chosen by people. The reason why exposure diversity is hardly regarded in the media policies is because the conventional media policies originated at the time when scarcity of spectrums was the main problem. In an environment where there are high barriers to entry into media market, encouraging production and distribution of diverse media content from diverse media entities was the top priority for media regulation. Therefore, the issue about exposure diversity was less regarded than the concern about how to guarantee a sufficient supply of different viewpoints from diverse sources.

However, scarcity of resources and high barriers to entry into media market is now less of an issue in the digital age. Instead, the new problem is the influence of selection intermediaries over the way people choose media content. The abundance of available information results in diversity of supply but does not automatically guarantee diversity of content people consume. In the era of overflowing information, diversity from the viewpoint of content actually exposed to audience has become increasingly important. Consequently, there are concerns about the change of media policy towards exposure diversity.

b. Exposure diversity and the current measures in the AVMSD and the UK Communications Act 2003.

With the objective of media policies to encourage diverse media's output as discussed above, the current regulations have disregarded the measure to encourage diversity of exposure. To promote media plurality, the various instruments provided in the existing laws can be roughly divided into two types of regulations: (i) the measures to prevent the concentration of media companies in media market<sup>6</sup>; and (ii) the requirements to promote quality content and various available viewpoints.<sup>7</sup>

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<sup>5</sup> Philip Napoli, 'Exposure Diversity Reconsidered' (2011) 1 J.Inf.Pol 246, 248.

<sup>6</sup> E.g. Section 348-356 of CA 2003; Section 58(2A) - (2C) of the UK Enterprise Act 2002.

<sup>7</sup> A clearly illustrated example is the six Australia media legislative Bills purposed in 2013. None of the six Bills refer to measure to promote exposure diversity. Besides, The Convergence Review and Other Measures Bill (one of the two Bills which is under consideration at the moment) deal with ownership matter and content transmission quotas.

The measures to prevent the concentration of media ownership are created to promote diversity of sources or independent media outlets. These measures are various; they are such as the limit of the number of media licences people can hold and the imposition of the ceiling on the total amount of market share. For instance, the UK 20/20 rule<sup>8</sup> prohibits a person from holding or having 20 per cent interest in Channel Three licence if he has more than 20 per cent of the national newspapers market share. The UK public interest test<sup>9</sup> authorises the government to intervene in media mergers when plurality concern is raised. There is also the measure to exclude certain persons from owning or controlling media companies. In particular, the UK disqualification rules<sup>10</sup> prevent politicians, religious bodies and advertising agencies, from holding licences. The goal of all these measures is to ensure market openness, competitiveness and sufficient diverse independent outlets available in the market. However, all these measures do not ensure or directly encourage that diverse sources will actually be consumed by people.

Another set of measures in the existing laws to protect media plurality is the provisions to promote quality content and various available viewpoints. These measures focus on the diversity of output, for example, the measures to guarantee a diverse composition of programmes being broadcasted. This can be manifest from the measures provided within the AVMSD, i.e. the European cultural quota<sup>11</sup>, the short news reporting<sup>12</sup> and the events list mechanism<sup>13</sup>. The European cultural quota requires broadcaster and providers of on-demand audiovisual media to produce and promote a certain volume of European works. Short news reporting obliges broadcasters holding exclusive broadcasting right of high interest event to grant other broadcasters to use short extracts in general news programs. The events list mechanism obliges those exercising exclusive broadcasting right of major important events (such as Olympic Games or the football World Cup) to allow second broadcaster to provide free live coverage of these events. It should be noted that the measures regarding media plurality in a new legislative

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<sup>8</sup> Schedule 14, Pt I of CA 2003.

<sup>9</sup> Sections 58(2A) - (2C) of the Enterprise Act 2002 (inserted 29 December 2003) by CA 2003 (c. 21), sections 375(1), 411(2)(3) (with transitional provisions in Sch. 18); S.I. 2003/3142, art. 3(1), Sch. 1 (subject to arts. 3(3), 11). Schedule 14, Pt I of CA 2003.

<sup>10</sup> Schedule 2, Pt II of the UK Broadcasting Act 1990.

<sup>11</sup> Articles 13, 16, 17 of AVMSD

<sup>12</sup> Article 15 of AVMSD.

<sup>13</sup> Article 14 of AVMSD.

proposal amending the AVMSD remain status quo as the existing rules mentioned above.<sup>14</sup>

Considering the rationale of these measures, they may be regarded as indirectly dealing with exposure diversity<sup>15</sup> because they seek to secure broad exposure of the public interest content. However, by regarding the classification of exposure diversity discussed in Chapter 2<sup>16</sup>, there is an absence of current legal measures which directly assist people to diversely choose media content or consume different media outlets . Also, these rules do not directly deal with creating the conditions that the audience can actually consume diverse viewpoints in the overwhelming information environment.<sup>17</sup> They do not provide content exposed to people in the form of comparison or serendipity encounter. They only encourage the accessibility of people to reach content made available by guaranteeing certain quantity of particular content presenting to the public.<sup>18</sup> Therefore, the measures in AVMSD should be categorised as direct measures for content diversity since they prevent content from the supply side to not be made available exclusively or not disappear from the public. To summarise, as examined above, the traditional regulatory provisions used to promote diversity of source and available viewpoints cannot achieve diversity of exposure.

In the UK, the doctrine of ‘due prominence’ has been implemented to require Electronic Programme Guide (EPG) providers to give public broadcasters an equal or favoured treatment in their page-ranking system.<sup>19</sup> EPGs facilitate consumers to find their way in the abundance offer of programmes and channels. In compliance with the Communications Act of 2003, Ofcom drew up a code of practice on EPGs to be respected by EPG providers. The code requires that EPG providers ensure that their agreement with broadcasters is made on fair, reasonable and non-discriminatory terms. EPG providers

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<sup>14</sup> European Commission, ‘Proposal for amending Directive 2010/13/EU concerning the provision of audiovisual media services in view of changing market realities’ (COM/2016/0287 final - 2016/0151 (COD), 25 May 2016)

<sup>15</sup> Peggy Valcke, ‘Looking for the users in media pluralism regulation’ (2011) 1 J.Inf.Pol 287, 298.

<sup>16</sup> See Part I.2b Classification of exposure diversity, p.47-48.

<sup>17</sup> This argument can also be applied to national law which obliges broadcasters to provide certain volume of original programs or production quota of local language, minority languages and minority interests e.g. Section 277, 309 (independent productions) section 278 (original production) section 286 (regional program-making) of CA 2003.

<sup>18</sup> Similar considerations have applied to ‘must carry rule’ which can be regarded as only indirectly acknowledges exposure diversity by ensuring users’ access to certain content (Universal Service Directive)

<sup>19</sup> Section 310 of CA 2003.

must also comply with an objectively justifiable method of allocating listings, for example, objectively justifiable methods could include ‘first come, first served’, alphabetical listings, and those based on audience shares. They must also refrain from giving undue prominence in any listing or display to a channel to which they are connected, except where required in the light of the appropriate prominence provisions. Besides, it is prohibited to impose “any condition in an agreement for EPG services between an EPG operator and a channel provider specifying exclusivity to one EPG for any service or feature”.<sup>20</sup> Nevertheless, the regulations on EPGs ensure platform openness and emphasise fair, reasonable and non-discriminatory access for program providers to EPGs as the result of the concern of free and fair competition in the market rather than the possible role of EPG providers in guiding the audience to a diversity of media or even proactively encouraging diverse exposure.

c. Exposure diversity and the revision of the AVMSD and the UK measurement framework for media plurality

Recently, the aspect of exposure diversity slowly begins to take holds in the policy discourse. Particularly, Ofcom proposal measurement framework for media plurality in 2015 includes media plurality from the exposure diversity aspect. Due to the challenged assessment of media influence and ownership in News Corporation/BskyB case in 2009<sup>21</sup>, Ofcom has developed new metrics from new perspective by shifting the measurement framework from the supply side to the way audiences actually consume content. This audience perspective indicators are such as audience reach<sup>22</sup> and time-exposure share<sup>23</sup>. It illustrates how widespread exposure to a particular source is across all users and indicates what proportion of the total audience select particular programmes. The CoE also comments that ‘the audience share indicator is one of the most relevant and useful

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<sup>20</sup> Section 16 paragraph g of Code of practice on electronic programme guides.

<sup>21</sup> The case relates to a convergent context that merged different media segments into one market and involves public interest test. See Ofcom, ‘Report on public interest test on the proposed acquisition of British Sky Broadcasting Group plc by News Corporation’ (Ofcom, 31 December 2010).

<sup>22</sup> Audience reach can be defined as ‘the percentage of the total audience which is exposed to a specific news provider’. In other words, this metric shows how many people are ‘reached’ by a specific news provider. See *Ibid*, 7.

<sup>23</sup> Time-based consumption directly analyses individual audience spending time consuming content across different providers. It shows the overview of each provider’s influent weight in the average individual’s public sphere. See Davide Morisi, ‘Measuring media pluralism in the convergence era: The case of News Corp’s proposed acquisition of BskyB’ (Media@LSE, 2012).

since it reflects the real influence of an operator in a given media market'.<sup>24</sup> Consequently, Ofcom proposal measurement framework for media plurality in 2015 includes audience perspective metric such as consumption metrics (measuring the number of people using news sources and the frequency they spend consuming it) and impact metrics (measuring how news content can have personal importance in influencing people's opinions such as reliability and trust).<sup>25</sup> In the acquisition in 21st Century Fox/Sky News case, the Competition and Markets Authority (CMA) uses the audience perspective indicators proposed in Ofcom's media plurality measurement framework for the assessment of media influence and ownership. CMA does not only consider the availability or the number of media providers available at the point of consumption but also measures consumption metrics (audience reach, time-exposure share and share of reference) and impact metrics (such as measures of importance and trust).<sup>26</sup> The UK new assessment framework of media ownership concentration can be considered as including an aspect of exposure diversity.<sup>27</sup> However, this measure is not the methods aiming to promote people to be exposed to diverse sources: it is only an assessment framework of media influence and concentration.

In contrast, the proposal revision of the AVMSD does not provide any measure in regard to exposure diversity. The existing regulations regarding media plurality remain status quo. There is a little change in the obligation to the promotion of European works: the proposal amendment imposes on-demand service providers to offer at least 20 percent of the audiovisual offer of their catalogues to give prominence to European works.<sup>28</sup> Article 7a of the revised AVMSD imposes that 'Member States may take measures to ensure the appropriate prominence of audiovisual media services of general interest' which regards the doctrine of due prominence. However, as discussed above, while 'due prominence' rules support openness and emphasise fair, reasonable and non-discriminatory access, they do not directly deal with creating the conditions so that the audience can actually consume diverse viewpoints in the abundant programmes and channels. The other changes in the new legislation are such as the obligation to protect

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<sup>24</sup> CoE, 'Media Diversity in Europe' (Media Division, Directorate General of Human Rights, December 2002) 28.

<sup>25</sup> Ofcom, 'Measurement framework for media plurality' (Ofcom, 5 November 2015) 15.

<sup>26</sup> The Competition and Markets Authority, 'A report on the anticipated acquisition by 21st Century Fox, Inc of Sky Plc' (CMA, 1 May 2018).

<sup>27</sup> Davide Morisi, 'Measuring media pluralism in the convergence era' (Media@LSE, 2012) 24.

<sup>28</sup> European Commission, 'Proposal for amending Directive 2010/13/EU'

minors against harmful content and the prohibition of hate speech. These rules are applied to all audiovisual media services without distinction: they will also apply to on-demand services. The most harmful content shall be subject to the strictest measures, such as PIN codes and encryption. Besides, EU countries have to ensure that audiovisual media service providers give sufficient information to viewers about harmful content to minors.<sup>29</sup> All of these rules are not relevant to exposure diversity issues. Therefore, in the EU, exposure diversity tends to not be safeguarded by legal provisions in the coming years.

#### d. Media literacy and the recent media policy

Regarding the exposure diversity in the future media policy, in its recent Recommendation on media pluralism and transparency of media ownership in 2018, the CoE highlight the importance of the way people being exposed to diverse content, as it recommended that:

‘This ongoing evolution also raises concerns for media pluralism. Internet intermediaries have acquired increasing control over the flow, availability, findability and accessibility of information and other content online. This may affect the variety of media sources that individuals are exposed to and result in their selecting or being exposed to information that confirms their existing views and opinions, which is further reinforced by exchange with other like-minded individuals (this phenomenon is sometimes referred to as a “filter bubble” or “echo chamber”). Selective exposure to media content and the resulting limitations on its use can generate fragmentation and result in a more polarised society.’<sup>30</sup>

The CoE also provides a guideline on the improvement of effective exposure of users to the broadest possible diversity of media content online<sup>31</sup>:

‘The visibility, findability, accessibility and promotion of media content online are increasingly influenced by automated processes, whether used alone or in combination with human decisions. States should encourage social media ... search and recommendation engines ... which use algorithms ... that:

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<sup>29</sup> Ibid.

<sup>30</sup> Recommendation CM/Rec (2018)1 on media pluralism and transparency of media ownership, 2.

<sup>31</sup> Ibid, 5-6

...

- assess the impact of [the processes of online distribution of media content] on users’ effective exposure to a broad diversity of media content;
- seek to improve these distribution processes in order to enhance users’ effective exposure to the broadest possible diversity of media content;
- provide clear information to users on how to find, access and derive maximum benefit from the wide range of content that is available; ...’

This is certainly an innovative approach which clearly acknowledges the importance of exposure diversity in media policy. The recommendation illustrates that the problems now are about filter bubble and audience polarisation. In other words, media policymakers realise that the abundance of available information does not guarantee people to expand their media use. Furthermore, the recommendation acknowledges the potential of selection intermediaries in supporting people’s exposure to diverse media content. The possible concrete measure to achieve exposure diversity is the regulation of selection intermediaries to improve their distribution process in order to enhance users’ effective exposure to a broad diversity of media content. The recommendation underpins the justification in placing a measure concerning exposure diversity on selection intermediaries as discussed in Chapter 2. It also encourages selection intermediaries to have a proactive role to recommend more diverse content.

However, it is not without problems. The recommendation gives no clear benchmarks of how and what the possible policy implications could be. It, therefore, is questionable on what is a meaningful and sufficient measurement to constitute the achievement of exposure diversity. The most relevant existing media policy which can possibly be considered as a method to support exposure diversity is media literacy.<sup>32</sup> Media literacy is coherence with the last guideline mentioned above (i.e. ‘provide clear information to users on how to find, access ...wide range of content that is available’). Media literacy, according to its description in the AVMSD, refers to skills or knowledge of people that enable them to have informed access to the greatest possible variety of

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<sup>32</sup> E.g. European Parliament, ‘Report on media literacy in a digital world’ (2008/2129(INI), 24 November 2008); Recommendation C(2009)6464 on Media Literacy in the Digital Environment for a More Competitive Audiovisual and Content Industry and an Inclusive Knowledge Society (Recommendation on Media Literacy); Ofcom, ‘Response to the European Commission’ (Ofcom, 30 September 2013).

information.<sup>33</sup> Media literacy also includes the ability of people to understand and critically evaluate different aspects of the media, the accuracy of information and the trustworthiness of the content.<sup>34</sup> As recommended by the CoE, the audience should learn how to improve their use of selection intermediaries and study the impact of how their information combined with queries can produce specific content recommendations for them.<sup>35</sup> Users should also be educated that high ranking search results and the top suggestions provided by social media do not necessarily reflect the importance, relevance or trustworthiness of the source.

By considering the limitation of the government to directly interfere in the way people consume media content, the empowerment of people to wisely choose media content is an effective measure to encourage people to consume diverse viewpoints. This method can be achieved by, for example, providing education about media to general people and providing specific Internet training aimed at children and parents.<sup>36</sup> The more media literacy people have, the more possibility people will choose diverse media content. Therefore, media literacy can be considered as a measure concerning exposure diversity.<sup>37</sup>

However, the empowerment of audience to have media literacy by providing education alone is not sufficient to achieve exposure diversity. At the present, media literacy merely focuses on the measures of training people to be more skilled audience. The media policymakers have not yet considered an approach applying to media entities to assist or inform people to achieve media literacy. In particular, even if the audience is aware of the power of selection intermediaries to influence diverse content exposed to them but if the system does not allow them to practically check the trustworthiness or the variety of the source, it is meaningless. If audiences have the skills to find variety of viewpoints but selection intermediaries provide merely one-sided information, how can their skills be exploited effectively? If users do not have the power or choice to change the recommendations exposed to them by selection intermediaries, it is hardly to say that

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<sup>33</sup> Recital 47 of AVMSD; See also section 11 of CA 2003.

<sup>34</sup> *Ibid.*

<sup>35</sup> Recommendation CM/Rec (2012)3 on the protection of human rights with regard to search engines.

<sup>36</sup> *Ibid.*; Recommendation on Media Literacy

<sup>37</sup> Peggy Valcke, 'Looking for the user in media pluralism regulation' (2011) 1 *J.Inf.Pol* 287, 303.

people truly have the skills to access variety of information and have the skills to evaluate the accuracy and trustworthiness of the content.

Exposure diversity cannot be achieved by solely depending on media literacy. This thesis argues that the burden to promote media literacy should not merely be on the public sector and the government. There should be a legal duty for selection intermediaries to assist or inform people to achieve media literacy. There also should be a regulation imposing an active role on selection intermediaries to encourage diverse content exposed to people. The further discussion of media literacy and other measures for achieving exposure diversity will be provided in Chapter 4.

In conclusion, the current existing regulations (particularly the AVMSD and the UK Communications Act 2003) are not effective and suitable for the achievement of exposure diversity. The design of the existing media laws is based on promoting diversity of source and available content on the supply side. Besides, in media policy, the notion of media plurality from the viewpoints of content actually exposed to the audience is still in their infancy. Also, the influence of selection intermediaries to encourage exposure diversity is still an issue that has barely been regarded. Next section, then, will examine whether it is effective and suitable to apply the existing law to selection intermediaries in order to encourage media plurality, especially diversity of exposure.

## 2. Selection intermediaries and media law

This section examines the existing media laws concerning the regulation of selection intermediaries. It will illustrate that not only that the current media laws are inefficient in supporting exposure diversity as discussed in the previous section, they do not have any obligation imposing on selection intermediaries. Even if we extend the existing media plurality rules (i.e. AVMSD) to apply to selection intermediaries, these rules are not suitable for the nature of selection intermediaries in the Internet environment. Therefore, it is not effective and appropriate to apply the existing laws to selection intermediaries in order to encourage media plurality, especially diversity of exposure.

This section is divided into three subsections. The first subsection discusses selection intermediaries and the current AVMSD. Then, the second subsection will examine the issue of selection intermediaries in the proposal revision of the AVMSD and

the UK proposal measurement framework for media plurality. It will explore whether the new regulations which is now under revision have any concerns about measures to effectively regulate selection intermediaries. Finally, the last subsection analyses the reasons why the current media plurality rules are not effective and suitable to apply to selection intermediaries.

a. Selection intermediaries and the AVMSD

Selection intermediaries are not under the scope of the regulations of the AVMSD and the UK Communications Act 2003. These existing specific media laws regulate merely traditional media and television-like services on the Internet.<sup>38</sup> In particular, the media plurality rules in the AVMSD only apply to an ‘audiovisual media service’ which is a service under the ‘editorial responsibility’ of a media service provider. According to article 1(c) of the AVMSD<sup>39</sup>, ‘editorial responsibility’ is the exercise of effective control over the production of content, i.e. the selection of the programmes and the organization for a chronological broadcast schedule or a catalogue of on-demand services. The media services under the definition of an ‘audiovisual media service’ are television broadcasting<sup>40</sup> and on-demand audiovisual media services<sup>41</sup>.

Selection intermediaries do not have editorial responsibility. They do not produce content and organise programmes in a chronological schedule as television broadcasts or in a catalogue as on-demand audiovisual media services. Selection intermediaries merely transmit content for which the editorial responsibility lies with third parties such as website operators.<sup>42</sup> Although selection intermediaries determine some content to appear on the top of their platforms, this selection automatically operates by algorithms not by human editorial control. Selection intermediaries do not select audiovisual content in the same manner as the editorial design or the final compilation of a fixed programme

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<sup>38</sup> See e.g. Article 1(a) of AVMSD: ‘audiovisual media service’ means:....is either a television broadcast as defined in point (e) of this paragraph or an on-demand audiovisual media service...’

<sup>39</sup> Article 1(c) of AVMSD

<sup>40</sup> Article 1(e) of AVMSD: ‘television broadcasting’ or ‘television broadcast’ (i.e. a linear audiovisual media service) means an audiovisual media service provided by a media service provider for simultaneous viewing of programs on the basis of a program schedule’.

<sup>41</sup> Article 1(g) of AVMSD: ‘on-demand audiovisual media service’ (i.e. a non-linear audiovisual media service) means an audiovisual media service provided by a media service provider for the viewing of programmes at the moment chosen by the user and at his individual request on the basis of a catalogue of programmes selected by the media service provider’.

<sup>42</sup> For further discussion about editorial control see European Audiovisual Observatory, ‘IRIS Special: Editorial Responsibility’ (CoE, 23 October 2008).

schedule by professional media service providers. They therefore, are not an ‘audiovisual media service’ and are not regulated under the AVMSD.<sup>43</sup> The media plurality rules in the UK Communications Act 2003 are only imposed on traditional media services which require a licence, i.e. television and radio services.<sup>44</sup> Thus, the UK current media regulations leave other online services particularly search engines and social media to be unregulated.

Even if we extend the application of the existing media plurality rules to selection intermediaries, the existing provisions do not suit for the operation of selection intermediaries. The AVMSD (i.e. the European cultural quota, the short news reporting and the events list mechanism) will be used as an example. To illustrate, the European cultural quota does not fit into the nature of selection intermediaries. We cannot oblige selection intermediaries to provide a certain quantity of European works since the content these intermediaries present to users depends on how users interact with the intermediaries. As for the rules on short news reporting and the events list mechanism, these rules deal with the exploitation of exclusive broadcasting rights of major important events. However, selection intermediaries by themselves do not broadcast these high interest events or hold the exclusive broadcasting rights. They merely link people to content providers who provide the short news reports or provide a live and deferred coverage of such events. Their action does not render an issue about the infringement of these exclusive rights. Therefore, the short news reporting and events list mechanism are not to be applied to the operation of selection intermediaries.

The aforementioned characteristics of the existing regulations derived from the media policies in the pre-internet age. Before the 21<sup>st</sup> century, media policymakers were exclusively concerned on traditional media and electric communication technologies which were the new issues at that time.<sup>45</sup> It is not until the early of the 21<sup>st</sup> century that policymakers start to focus on the significance of the Internet as a new important media platform. Nevertheless, there is no specific considerations on the power of search engines

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<sup>43</sup> For further discussion about the scope of audiovisual media service under AVMSD see European Audiovisual Observatory, ‘On-demand services and the material scope of the AVMSD’ (CoE, June 2016).

<sup>44</sup> E.g. Section 277, 309 (independent productions) section 278 (original production) section 286 (regional program-making) of CA 2003.

<sup>45</sup> E.g. Recommendation No. R (99) 1 on measures to promote media pluralism [1999]; Recommendation CM/Rec(2007)2 on Media Pluralism and Diversity of Media Content.

and social media.<sup>46</sup> The rise of search engines and social media has triggered concerns about media plurality only in recent years. Due to the swiftly increasing influence of selection intermediaries in the online platforms, the EU<sup>47</sup> and the CoE<sup>48</sup> and national authorities<sup>49</sup> now have significantly concerned that selection intermediaries might constitute a gateway for people to be exposed to information and can be detrimental to media plurality.

b. Selection intermediaries and the proposal revision of the AVMSD and the UK new measurement framework for media plurality

In 2015, the EU has provided a consultation of an amendment of the AVMSD.<sup>50</sup> The European Commission has listed media plurality as one of its priorities in the consultation and has also considered about the findability of public service content which have implications for plurality and media freedom. The consultation provides various issues and some of them would mean drastic changes to the framework governing television and other audiovisual services across Europe. One of the issues in the consultation is the services to which the AVMSD should apply: the question is whether the Directive should extend all or some of its provisions to other services, especially those of search engines and social media.

As the Commission notes the market power of new media players, it states that it will carry out a comprehensive investigation and consultation on the role of platforms in content recommendations.<sup>51</sup> Concerning the enhanced role of these new players in the value chain, they may directly influence or control the content offer and the choice of audiences. The Commission is concerned about the need to ensure a level playing field between all players and the findability of content providers: these concerns implicate the

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<sup>46</sup> E.g. Recommendation CM/Rec(2007)16 on measures to promote the public service value of the Internet; Department of Broadband, Communications and the Digital Economy, 'Convergence Review' (Australian Government, March 2012) 19 ('When the current media ownership and control rules were passed by Parliament in 2006, social media was in its infancy').

<sup>47</sup> E.g. European Commission, 'Media pluralism in the Member States of the European Union'; CoE, 'Conclusions on media freedom and pluralism in the digital environment' (2014/C 32/04).

<sup>48</sup> E.g. Recommendation CM/Rec(2011)7 on a new notion of media; Recommendation CM/Rec(2014)6 on a Guide to human rights for Internet users.

<sup>49</sup> For UK see e.g. Lord Justice Leveson, 'An Inquiry into the Culture' (UK Government, 29 November 2012) 1464; Ofcom, 'Response to the European Commission' (Ofcom, 30 September 2013)

<sup>50</sup> European Commission, 'Consultation on Directive 2010/13/EU on audiovisual media services (AVMSD)' (European Commission, 6 July 2015).

<sup>51</sup> European Commission, 'A Digital Single Market Strategy for Europe' (COM/2015/0192 final, 6 May 2015).

telecommunications regime as well as Internet service providers.<sup>52</sup> Therefore, the Commission questions whether proportionate regulation is needed for new intermediary services which are not subject to the same regulatory burden of TV-like services.

The consultation, however, does not mention any further details about how to regulate selection intermediaries. In the case that the Directive extends its provisions to regulate selection intermediaries, to what extent the current provisions regarding the protection of media plurality are suitable to regulate selection intermediaries? The consultation does not clearly illustrate which specific provisions will be applied to selection intermediaries in relation to the protection of media plurality. Therefore, before considering such extension of the scope of the AVMSD to cover selection intermediaries, we need an understanding of public expectations regarding various online services and their responsibility on content recommendations. As the UK Government responses to the consultation of the amendment of the AVMSD:

‘The AVMSD reflects the characteristics and functions of services with editorial responsibility; they do not make sense on services with no editorial control.’<sup>53</sup>

It is not simple to extend the scope of the AVMSD because the distinction between broadcasting-like content services and other audiovisual platforms (where the provider has no editorial responsibility). In particular, the difference in nature of operation will make it difficult to apply the AVMSD rules to social media.<sup>54</sup> Consequently, in 2018, the revision of the AVMSD, i.e. article 28b, only includes video-sharing platforms (which are platforms that store a large amount of videos without editorial responsibility) to ensure that video-sharing platform providers take appropriate measures e.g. to protect minors from programmes which may impair their physical, mental or moral development and to protect the general public from programmes containing incitement to violence or hatred and activity which is a criminal offence such as offences concerning child pornography,

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<sup>52</sup> Another public consultation is ‘The consultation on the regulatory environment for platforms, online intermediaries, data and cloud computing, and the collaborative economy’. It deals with the identification of the characteristics of a range of new kinds of services providing content online and finds out what roles are they playing in the economy of the single market. Nevertheless, this consultation directly deals with the issues of consumer protection, the use of users’ data, authorship and liability of online services. See European Commission, ‘Public consultation on the regulatory environment for platforms, online intermediaries, data and cloud computing and the collaborative economy’ (European Commission, 24 September 2015).

<sup>53</sup> The UK government, ‘UK Government response to the European Commission consultation on the review of the Audiovisual Media Services Directive (AVMSD)’ (2016)

<sup>54</sup> Ibid.

racism and xenophobia.<sup>55</sup> . The extension of the audiovisual media service under the scope of the Directive suggests a paradigm shift from traditional television as the benchmark and towards a more open and arguably broader understanding of media service. However, social media services are not included, except if they provide a service that falls under the definition of a video-sharing platform. Also, there is no mention of search engines in the new revised legislative. Therefore, the amended AVMSD tends to have no provisions concerning selection intermediaries.

At the present, The CoE recognises that media content is not only distributed, but also increasingly managed, edited and curated by selection intermediaries. These various roles of selection intermediaries in dissemination content also have varying degrees of impact on exposure diversity. It is imperative that the influence of selection intermediaries is appropriately reflected in media regulation in order to maintain the democratic process. The CoE, therefore, emphasises that new policy responses and strategic solutions are needed to enhance accessibility to diverse content of citizen:

‘Where intermediaries produce or manage content available on their platforms or where intermediaries play a curatorial or editorial role, including through the use of algorithms, State authorities should apply an approach that is graduated and differentiated. ... States should determine appropriate levels of protection, as well as duties and responsibilities according to the role that intermediaries play in content production and dissemination processes, while paying due attention to their obligation to protect and promote pluralism and diversity in the online distribution of content.’<sup>56</sup>

As discussed in the previous section, the 2018 Recommendation on media pluralism and transparency of media ownership also guides that selection intermediaries should seek to improve their content distribution in order to enhance users’ effective exposure to the broadest possible diversity of media content.<sup>57</sup> However, it does not provide further detail of how to implement this requirement.

In the UK, media policymakers are also increasingly concerned about the power of selection intermediaries and its impact on the content exposed to audiences. For instance, Ofcom has become aware of the significant increase of online news consumptions from

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<sup>55</sup> Article 28b of the AVMSD.

<sup>56</sup> Recommendation CM/Rec (2018)2 on the roles and responsibilities of Internet intermediaries, 6.

<sup>57</sup> Recommendation CM/Rec (2018)1 on media pluralism and transparency of media ownership, 5-6.

Facebook and Google News and the shift of these intermediaries to become the ‘second most important source of online news’.<sup>58</sup> The concerns about the influence of selection intermediaries are manifest in many Ofcom’s statements; for example, ‘social media is becoming a valuable source for breaking news...’<sup>59</sup> and ‘search engines such as Google, taking consumers directly to a range of different news sources based on their search results’<sup>60</sup>. Although Ofcom recognises that selection intermediaries can positively increase the diversity of viewpoints available to citizens, it also expresses that selection intermediaries have the potential to reduce plurality of consumption.

As the UK government and Ofcom state<sup>61</sup>, the scope of media plurality consideration should include all organisations (the UK consumers has an access to) that impact the news and current affairs, including search engines and social media. Consequently, in 2015, the UK was in the process of adopting new regulations on these selection intermediaries.<sup>62</sup> The new measurement frameworks and baseline assessments for media plurality considers all parts of the news value chain, from the collection of information to the dissemination and aggregation of content. Eventually, Ofcom proposal is that the use of selection intermediaries should be measured when considering the consumption of news sources<sup>63</sup>: and intermediaries should be considered as a separate category distinct from the news sources themselves (retail and wholesale) when looking at media consumption metrics. This approach will help identify the role that selection intermediaries play and the extent to which selection intermediaries are used in accessing to online news. Thus, these new regulatory frameworks also assess the impact on media plurality of selection intermediaries which are services that affect discoverability and accessibility.

However, the new measurement frameworks for media plurality still adhere to the conceptual framework of diversity of source and available viewpoints. It only proposes media ownership regulations to selection intermediaries. It has not provided any legal measures to encourage diverse contents exposed to people through these services. The

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<sup>58</sup> Ofcom, ‘Measuring media plurality’ (Ofcom, 19 June 2012) 25 para 5.42.

<sup>59</sup> Ibid, p.12 para 4.4

<sup>60</sup> Ibid, p.24 para 5.36

<sup>61</sup> Ofcom, ‘Measurement framework for media plurality’ (Ofcom, 5 November 2015); Department of Culture and Sport, ‘Media Ownership and Plurality Consultation Report’ (Government response to the House of Lords Select Committee on Communications Report into Media Plurality, 6 August 2014)

<sup>62</sup> Ibid.

<sup>63</sup> Ibid, 15.

issue of exposure diversity has not been discussed: the activities of selection intermediaries which are able to distort viewpoints exposed to people are left to be unregulated. Therefore, the UK media reform proposal regarding selection intermediaries does not provide any legal measures that encourage people to consume various viewpoints on the Internet. It also cannot truly control the influence of selection intermediaries over the way diverse content exposed to people is being shaped.

- c. Analysing why the current media plurality rules are not effective and suitable to apply to selection intermediaries

The inapplicability of the existing regulations to selection intermediaries derives from three reasons. First, the current regulations have focused on the different types of services related to the production of content, in particular newspapers, television and radio<sup>64</sup>, rather than the means to find content as search engines and social media. For instance, television broadcasting and an on-demand services (or between linear and non-linear services) in the AVMSD<sup>65</sup> can be considered as the services providing content.<sup>66</sup> An on-demand service in the AVMSD mirrors the usual pattern of a television service.<sup>67</sup> Also, the extent of regulation to video-sharing platforms comes from the aspect of services which compete or challenge traditional media players (who have to adapt to the ongoing transformation in order to secure their market positions). The concept of ‘programme’ is a centrality and a key element in determining the scope of the AVMSD. Therefore, the existing media plurality rules are designed to apply to traditional media.

Due to technology convergence, media production services which were once easy to identify as newspapers, television and radio are now more complicated in defining. Furthermore, the distinguishing between these media production services is less of the plurality concern. Instead, the means by which people find content become an important factor to achieve exposure diversity. However, the existing laws have not yet focused on selection intermediaries which are the means to find content. Therefore, the current laws,

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<sup>64</sup> E.g. Part 3 Chapter 2 Regulatory Structure for Independent Television Services and Chapter 3 Regulatory Structure for Independent Radio Services of CA 2003.

<sup>65</sup> Article 1 section 1(e) and (g) of AVMSD.

<sup>66</sup> Tony Ballard, ‘Broadcasting’ in David Goldberg, Gavin Sutter and Ian Walden (eds), *Media Law and Practice* (OUP 2009) 331.

<sup>67</sup> Recital (24) of AVMSD: ‘It is characteristic of on-demand audiovisual media services that they are ‘television-like’, i.e. that they compete for the same audience as television broadcasts, and the nature and the means of access to the service ...the concept of ‘program’ should be interpreted in a dynamic way taking into account developments in television broadcasting.’

in particular the AVMSD and the UK Communications Act 2003, are not effective to regulate the operation of selection intermediaries in order to encourage people to consume diverse content.<sup>68</sup>

The second reason is that the existing regulations reflect the nature and the use of the conventional networks which can be defined in term of one-to-many communication services.<sup>69</sup> For instance, the design of the European cultural quota based on the notion that people have no ability to choose content other than content only broadcasted by a few broadcasters. Also, the rules on short news reporting and the events list mechanism reflect the picture of broadcasters' exclusive rights to broadcast major important events to a large amount of people. All of these rules are based on the standard model of one-way distribution of content by broadcasting services to the audiences.<sup>70</sup> Therefore, the existing media plurality rules do not keep pace with the new forms of the interactive communication on the Internet. As a result, the current provisions cannot be consistent with the role of selection intermediaries as the centre of the interactive information dissemination system.

Lastly, the legal perspective manifested in the present regulations has based on the distinction between media providers and telecommunication services.<sup>71</sup> While the former service has the editorial control over their production of media content<sup>72</sup>, the latter service has to distribute content on the principle of 'neutral transmission'. The distinction is crucial since the different types of services lead to the different types of influences over media plurality. As a consequence, distinct regulatory tools have been developed to regulate these different services. In particular, telecommunication sectors are regulated by the Universal Service Directive and the Access Directive, e.g. the must carry rule, in order to neutrally disseminate content to the audience. On the other hand, media providers

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<sup>68</sup> Selection intermediaries are regulated primarily by the Internet law, e.g. Directive 2000/31/EC on certain legal aspects of information society services, in particular electronic commerce, in the Internal Market [2000] OJ L 178/1. Under certain conditions, selection intermediaries are exempted from liability for the content they transmit but none of these laws do cover media plurality issues.

<sup>69</sup> E.g. Section 241 Television multiplex services, section 258 Radio multiplex services and section 260 Digital sound services for inclusion in non-radio multiplexes of CA 2003.

<sup>70</sup> Tony Ballard, 'Broadcasting' in David Goldberg, Gavin Sutter and Ian Walden (eds), *Media Law and Practice* (OUP 2009) 331.

<sup>71</sup> E.g. Section 32(2) of CA 2003: 'In this Act "electronic communications service" means ..., except in so far as it is a content service" and (7)(b) "a content service means ... the exercise of editorial control over the contents...'

<sup>72</sup> Recital (25) of AVMSD: 'The concept of editorial responsibility is essential for defining the role of the media service provider and therefore for the definition of audiovisual media services'.

such as broadcasters and on-demand service providers are regulated under media law, e.g. the AVMSD, in order to produce variety of content to the public. Even though the concept of ‘editorial responsibility’ seems to be declining by extending the scope of the Directive to video-sharing platforms, the Directive still focus on the services which are comparable to the form and content of television broadcasting. The European Commission considers that the content stored on video-sharing platforms is not under the editorial responsibility of the video-sharing platforms provider: but at the same time the Commission acknowledges that video-sharing platforms is not merely the result of automatic means or algorithms (but includes human intervention).

However, the distinct regulation of media providers and telecommunication services does not regard the power of a new Internet service i.e. selection intermediaries. The operation of selection intermediaries neither has editorial control under the definition of AVMSD as a traditional media nor is a neutral transmission as telecommunication services. Selection intermediaries combine both the function of connecting users to access media content and the function of exercising discretion to suggest certain content for the interest of the audience. They, therefore, are distinct from media companies and telecommunication services. With the unique nature of operation, these intermediaries raise a new concern about media plurality which does not appear in the case of media providers or telecommunication services. The concern about selection intermediaries is on the exploitation of their power to exclude some content from people attention. In other words, selection intermediaries can control the level of diverse content exposed to the audiences. Thus, the existing regulations are not capable of dealing with the power of these new selection intermediaries as they are distinct from other media and communication services.<sup>73</sup>

To conclude, the current media laws and policies to regulate selection intermediaries and encourage exposure diversity are still in their infancy. The CoE, for example, mentions concerns regarding the power of these intermediaries as the bottleneck affecting information flow in many documents. However, the CoE has not illustrated any more far-reaching conclusions about a possible regulation for these intermediaries to

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<sup>73</sup> E.g. Recital (22) of AVMSD: ‘... the definition of an audiovisual media service should cover mass media ... but ... search engines should also be excluded from the scope of this Directive.’

promote exposure diversity. Moreover, except the policy recommendation about media literacy, the European Commission has not recommended any further roles of selection intermediaries in proactively assisting the audiences to expose to diversity of media content. Therefore, further discussion is needed to find the measures to contribute these intermediaries for the promotion of exposure diversity.

Media laws, however, are not the only legal instruments to encourage media plurality. Competition law can also be adopted to promote media plurality. The next part, then, will analyse the application of competition law to regulate selection intermediaries in order to achieve exposure diversity.

## **Part II: The limitation of competition law to achieve exposure diversity**

As discussed in Part I, there are no existing specific media laws and regulations to deal with the power of selection intermediaries influencing exposure diversity. This Part, therefore, examines whether competition law can regulate selection intermediaries to achieve diverse media content exposed to people. This part is divided into three sections: first, it will give an overview of the distinction between the objectives and matters of concerns of competition law and those of exposure diversity; then, the second section will illustrate the limitation of the application of competition law in the context of new economy of online platform and regulation of selection intermediaries; the last section will discuss whether the remedy of competition law can assist to achieve exposure diversity by analogizing the remedy proposed in the Google Shopping case as an example. The conclusion of this part is that competition law is neither sufficient to restrain selection intermediaries' abuse of power nor necessarily always supports diversity of exposure.

### *1. The difference between competition law and exposure diversity*

Competition law can be used to encourage media plurality, especially in the dimension of diversity of ownership. Facilitating a competitive market can be considered as a means for achieving media plurality because competitive markets will cause diversity of sources available in the public, or diversity on the supply side. However, competition law in itself is not purposely created to protect media plurality so it is neither efficient nor always protects every dimension of media plurality. Therefore, media plurality requires other approaches to achieve exposure diversity. This section will examine how the goals

of competition law are distinct from the concerns about exposure diversity. It also discusses the limitation of the application of competition law on selection intermediaries regarding exposure diversity.

The primary concern is that the goals of competition law and exposure diversity are different. Competition law aims to ensure efficient competitive markets and (which leads to) consumer welfare. In the aspects of competition law, consumer welfare relates to price, service, quality and choice.<sup>74</sup> The level of consumer welfare can be determined by the efficiency of resources being allocated to satisfy consumer's desires and the efficiency of resources being used by particular companies.<sup>75</sup> On the other hand, exposure diversity focuses on the diversity of viewpoints people choose and the influence of selection intermediaries on the distortion of people's perception of the world.<sup>76</sup> Exposure diversity relates to the right to receive information and democratic concerns<sup>77</sup>; in contrast, competition law relates to the individuals' economic freedom and the consumers' right to economic self-determination.<sup>78</sup> Competition law, therefore, prevents anti-competitive behaviour of companies which have market power. It does not encourage diverse sources or content actually consumed by people; instead, it ignores other social interests, such as freedom to receive information and democratic values, so long as market mechanism is well-functioning.

a. Market power and media power

Competition law is concerned about the market power of the companies whilst exposure diversity is concerned about the media power of selection intermediaries on the people's public sphere. These two powers are not the same thing. In particular, from the exposure diversity dimension, every search engine and social media has the power to influence diversity of viewpoints presented to people<sup>79</sup> (though the big ones such as Google and Facebook tend to have more influence). The position of selection intermediaries as the gatekeeper of information flow on the Internet determines the media

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<sup>74</sup> Eugène Buttigieg, *Competition Law* (Kluwer 2009) 6-8.

<sup>75</sup> *Ibid.* p. 7.

<sup>76</sup> Philip Napoli, 'Deconstructing the Diversity Principle' (1999) 49(4) J.Com 7.

<sup>77</sup> Natali Helberger, 'Exposure diversity as a policy goal' (2012) 4(1) J.M.L 65.

<sup>78</sup> Eugène Buttigieg, *Competition Law* (Kluwer 2009) 5-6.

<sup>79</sup> Natali Helberger, Katharina Kleinen-von Königslöw and Rob van der Noll, 'Regulating the new information intermediaries as gatekeepers of information diversity' (2015) 17(6) info 50, 52.

power of selection intermediaries in itself.<sup>80</sup> The number of people using search engines and social media as the outlets to consume media content can also express the degree of the influence which selection intermediaries have over the public and a person. Therefore, any approaches which are created to encourage exposure diversity are applied to every selection intermediary, not merely to big intermediaries such as Google and Facebook.

In contrast, not every search engine and social media has market power. The dominant position and market power in competition law do not consider the position of selection intermediaries to influence people's opinion. Market power can be defined as the economic power which enables firms in a dominant position to prevent the effective competition.<sup>81</sup> Market power exists where firms are capable of, for example, restricting consumer's choices and decreasing quality of services regardless of competitive constraints for a significant period of time.<sup>82</sup> Competition law, therefore, merely regulates the dominant companies who exercise their market power to worsen the competition in the market. It does not apply to the actions of non-dominant search engines and social media.

For instance, the dominant position and market power are the significant factors to differentiate the conclusions of the Google manipulating search results case in the US and the EU. As described by the European Commission, the fact that market share of Google's competitors in the US is around 30 percent while in Europe Google has above 90 percent of market share is the reason why the Commission continues investigating Google's actions, even though the US Federal Trade Commission has concluded that there was no competition issue.<sup>83</sup> It can also be implied that Yahoo! and Bing whose combined market share are less than 5 percent in Europe and less than 30 percent in the US, can manipulate their search results without raising any competition investigations. Moreover, in circumstances where the search engines or social media market is an effective competitive market and there are no dominant companies in the market, any

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<sup>80</sup> Natali Helberger, 'Diversity by design' (2011) 1 J.Inf.Pol 441, 442

<sup>81</sup> See Case 27/76, *United Brands Company and United Brands Continentaal v Commission* [1978] ECR 207, para 65; Case 85/76, *Hoffmann-La Roche & Co. v Commission* [1979] ECR 461, para 38.

<sup>82</sup> European Commission, 'Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings' (Official Journal C 45/02, 24 February 2009) para 11.

<sup>83</sup> European Commission, 'Commission Seeks Feedback on Commitments Offered by Google to Address Competition Concerns' (MEMO/13/383, 25 April 2013) 3.

actions of selection intermediaries do not have competition issues, even though these actions still raise the concerns about exposure diversity.

The concerns about the dominant position illustrate that competition law recognises each of search engines and social media as an independent entity since market power relates to the competitive relationship between each firm and their competitors. Exposure diversity, in contrast, regards selection intermediaries altogether as an important process of providing media content. Therefore, the concerns about market power do not always mean exposure diversity issues.

*b. The actions concerned by exposure diversity and anti-competitive conduct*

Another concern is the actions that should be regulated. To be precise, the anti-competitive conducts under competition law differ from the operations of selection intermediaries which raise exposure diversity concerns. Rather than focusing on the competition process as in competition law, exposure diversity protects every single voice even if it is a minor one.<sup>84</sup> From the perspective of exposure diversity, selection intermediaries should be restrained from exploiting their power to unreasonably exclude some content from appearing and should encourage diverse viewpoints presented to people.<sup>85</sup> Therefore, all forms of the manipulations of selection intermediaries which cause a bias in content recommendations raise the concerns of exposure diversity.

However, not all forms of bias in content recommendations would be considered as an anti-competitive conduct under competition law.<sup>86</sup> To apply competition law, a firm which is in the dominant position must abuse their market power to prevent competitive markets.<sup>87</sup> Anti-competitive conducts under competition law are the behaviour which deviates from normal competitive manners and regards as an unfair or distortion of competition.<sup>88</sup> Actions which cannot be explained as having other incentives (such as serving consumers, improving innovation or creating efficiency) than the purpose to destroy competition can be considered as an abuse of market power.<sup>89</sup> Therefore, for the

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<sup>84</sup> Philip Napoli, 'Deconstructing the Diversity Principle' (1999) 49(4) J.Com 7.

<sup>85</sup> Natali Helberger, 'Exposure diversity as a policy goal' (2012) 4(1) J.M.L 65.

<sup>86</sup> Ioannis Lianos and Evgenia Motchenkova, 'Market Dominance and Quality of Search Results in the Search Engine Market' (2013) 9(2) J.C.L.E 419, 452.

<sup>87</sup> Rosa Greaves, *Competition Law* (Ashgate Publishing Ltd 2003) 10.

<sup>88</sup> Richard Whish and David Bailey, *Competition Law* (7th ed, OUP 2012) 196.

<sup>89</sup> Marvin Ammori and Luke Pelican, 'Competitors' Proposed Remedies for Search Bias' (2012) 15(11) Journal of Internet Law 1, 10.

operations of selection intermediaries to plausibly raise competitive concerns, they have to cause significant impacts on anti-competitive foreclosure (not merely affect a single competitor but must have negative effect on the competitive process).<sup>90</sup> Merely the fact that selection intermediaries manipulate their content recommendations and make some competitors (especially less efficient companies) being hard to survive and to consequently leave the market is not a concern of competition law at all.<sup>91</sup> From the aspect of competition law, manipulating content recommendations can be regarded as the action to differentiate between selection intermediaries which is a natural by-product of competition; it is desirable and beneficial to consumers.<sup>92</sup>

In particular, the systematic process of the algorithms ranking to recommend certain content higher than others may not relevant to competition law; because such process is hard to be differentiated whether it is pro-competitive or anti-competitive.<sup>93</sup> Therefore, bias in content recommendations which is the result of the systematic process can be regarded as beyond the scope of competition law. Exposure diversity, however, questions the designs and mechanisms of selection intermediaries' decisions to favour some content (e.g. the process of indexing and ranking in search engines and the process of suggestion and ranking content in social media) and their editorial effects on exposure diversity.<sup>94</sup> For example, there is a critique that the process of ranking by popularity will make marginal voices disappear.<sup>95</sup> This process will make popular content even more popular and will reduce diverse viewpoints appearing for people's attention. Competition law, in contrast, does not question about how selection intermediaries configure their algorithms to provide content recommendations ranking by popularity and leaves this issue to be at the decision of consumers in the market.

Moreover, the process of manually manipulating content recommendations to promote or penalise certain content certainly has an impact on exposure diversity. This form of bias may occur from various incentives as Ioannis and Evgenia illustrate that '...

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<sup>90</sup> Richard Whish and David Bailey, *Competition Law* (7th ed, OUP 2012) 196-197.

<sup>91</sup> Joshua Wright, 'Defining and Measuring Search Bias' (George Mason Law & Economics Research Paper No. 12-14, 2011) 7.

<sup>92</sup> Joshua Wright, 'Defining and Measuring Search Bias' (George Mason Law & Economics Research Paper No. 12-14, 2011) 2.

<sup>93</sup> James Ratliff and Daniel Rubinfeld, 'Is there a market for organic search engine results and can their manipulation give rise to antitrust liability?' (2014) 10(3) J.C.L.E 517, 533.

<sup>94</sup> Natali Helberger, 'Exposure diversity as a policy goal' (2012) 4(1) J.M.L 65.

<sup>95</sup> Matthew Hindman, *The Myth of Digital Democracy* (PUP 2009) 99-101.

it can relate to prejudice, inclination, partiality, or tendency affecting judgment in the sense that no equal chance is offered to another idea...'<sup>96</sup> Whichever incentive it is, bias in content recommendations in itself can harm exposure diversity. However, the manual manipulations are not always considered as the anti-competitive conducts. Unless there is an analysis on the economic context that such bias from the manual manipulations reduces consumer welfare, the manual manipulations of content recommendations alone are not a significant factor of the competitive harm and are meaningless in the competition aspect.<sup>97</sup> Therefore, competition law cannot be applied to protect exposure diversity if the manipulations by selection intermediaries do not foreclose competition process.

c. Quality of content recommendations and the duty of selection intermediaries

There is also a difference between competition law and exposure diversity in the issue of the quality of content recommendations. In competition law, selection intermediaries are not required to provide the highest quality of content recommendations. This is acceptable in the same way as car dealers need not to sell the best car at the best price.<sup>98</sup> However, in the exposure diversity aspect, people place a large degree of trust in the quality and neutrality of content recommendations they receive; nevertheless, they do not have the ability to detect the manipulation of selection intermediaries. Therefore, the degree of the quality of content recommendations provided by selection intermediaries raises exposure diversity concerns. From this view, selection intermediaries should have a responsibility to provide content recommendations with the highest quality regarding diverse viewpoints as they can. Moreover, it should be noted that the concerns about the quality of content recommendations in term of consumer welfare in competition law do not necessarily indicate the different viewpoints or opinions presented to people. The quality of content recommendations in the competition law's perspective refers to the exact right answers of what users are looking for or what is relevant to users' preferences.

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<sup>96</sup> Ioannis Lianos and Evgenia Motchenkova, 'Market Dominance and Quality of Search Results in the Search Engine Market' (2013) 9(2) J.C.L.E 419, 452.

<sup>97</sup> Geoffrey Manne and Joshua Wright, 'If Search Neutrality is the Answer, What's the Question?' (George Mason Law & Economics Research Paper No. 11-37, 2011) 37.

<sup>98</sup> Mark Patterson, 'Google and Search Engine Market Power' (2013) Harv.J.L.Tech 1, 7-10.

Lastly, in the exposure diversity's viewpoint, selection intermediaries have the power as traditional media and are the gatekeepers of information flow on the Internet. Therefore, they should have the public duty to exploit their resources to encourage people to consume diverse viewpoints. This duty includes dissemination of viewpoints which promote their competitors and which they disagree with. On the contrary, there are no general duties in competition law for any firms, even the dominant ones, to assist their competitors. Thus, selection intermediaries do not have any duties to give a free publicity to their competitors.<sup>99</sup> Although there is a 'special responsibility'<sup>100</sup> applied to the firms in a dominant position, this special responsibility is not specific to aid their competitors. Rather, the special responsibility prohibits the dominant companies to exercise their conduct to impair the genuine and undistorted competition on the common market.<sup>101</sup> The dominant companies will be obliged to have more responsibilities than the usual legal obligations which the non-dominant firms bear. They are also deprived of the right to do something which is not in itself abusive if conducted by the non-dominant firms.<sup>102</sup> However, this does not mean that the dominant firms have to share the sources of their advantage which may lessen the incentive to invest in the economically beneficial facilities. Therefore, the general duty and the special responsibility under competition law do not oblige any selection intermediaries to encourage exposure diversity.

In conclusion, competition law is not always applicable to sufficiently protect exposure diversity. This is because of the distinction between the objectives of competition law and those of exposure diversity. Competition law is purposely created to protect competitive market and consumer welfare. It, therefore, does not always encourage diverse media content exposed to people. Besides, there are differences between the issues under the concerns of competition law and exposure diversity. While operations of selection intermediaries can influence the volume of diverse content exposed to people, most of these actions do not tend to be considered as anti-competitive conducts under competition law.

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<sup>99</sup> James Ratliff and Daniel Rubinfeld, 'Is there a market for organic search engine results and can their manipulation give rise to antitrust liability?' (2014) 10(3) J.C.L.E 517, 539.

<sup>100</sup> Paul Craig and Grinne de Búrca, *EU Law text, cases and materials* (5th ed, OUP 2011) 1025; Richard Whish and David Bailey, *Competition Law* (7th ed, OUP 2012) 192.

<sup>101</sup> Case 322/81, *Nederlandse Banden-Industrie Michelin v. Commission* (1983) ECR 3461, 3503.

<sup>102</sup> Paul Craig and Grinne de Búrca, *EU Law text, cases and materials* (5th ed, OUP 2011) 1025; Richard Whish and David Bailey, *Competition Law* (7th ed, OUP 2012) 192.

However, it does not mean that competition law is not a legal instrument which can be exploited to encourage exposure diversity. Competition law can also be adopted to prevent dominant selection intermediaries from manipulating content recommendations which negatively affects exposure diversity when such action can be analysed as an anti-competitive conduct and reduction of consumer welfare. The next section will analyse the efficiency of the application of competition law in the context of new economy of online platform, in particular dominant search engines and social media manipulating result recommendation. Even if competition law address exposure diversity concerns, it is not without a problem in applying competition law on the action of selection intermediaries. It is, therefore, crucial to examine, as an example, whether competition law is effective to regulate the action of selection intermediaries which has an adverse impact on exposure diversity.

## 2. The application of competition law to regulate selection intermediaries

As discussed in the previous section, competition law does not directly support diversity of exposure. However, it can prevent the anti-competitive conduct of dominant firms which reduces diverse content exposed to people. Thus, competition law can encourage exposure diversity in certain circumstance. This section, then, discusses the application of competition law to regulate selection intermediaries. The section uses the situation when big selection intermediaries such as Google or Facebook manipulates its result recommendation to favour its own affiliated services as an example to criticise. For instance, Google may promote content or site of its business partnership over other sites. It may have a contract to present certain viewpoints of news or current affair in their search results rather than the opposite opinions. What if Facebook conducts a policy or creates a condition of its platform which prefer content produced by its sponsorship. Facebook may prevent content generated from certain sites or social media platforms from being linked or shared on Facebook. These manipulations of result recommendation also raise concerns about exposure diversity. Therefore, it is important to analyse in detail how competition law can be applied to these actions; this, in turn, will demonstrate whether competition law can be used to regulate operations of selection intermediaries which negatively affect exposure diversity.

The action of selection intermediaries in placing its own affiliated content at a preferential position in its result recommendation and lowering the ranking of other

competing content can reduce the advertising revenue of content generated websites. Since users tend to click on the first few entries on the search engine or social media's screen, advertisers will most likely prefer to advertise on a higher ranking in result recommendations. Consequently, the downgraded content of other sites will be less attractive to advertisers and this practice eventually leads to the exclusion of these sites from selection intermediaries' platforms. Therefore, the selection intermediaries' manipulation of result recommendations can be considered as a violation of the prohibition of abuse of a dominant position to exercise anti-competitive conduct under Article 102 TFEU which states:

‘Any abuse by one or more undertakings of a dominant position within the common market or in a substantial part of it shall be prohibited as incompatible with the common market insofar as it may affect trade within Member States...’

To apply Article 102 TFEU, there are two elements to be concerned. One is a dominant position in a relevant market and another element is the abusive manner which is harmful to competition.

a. Dominant position in a relevant market

The finding of dominance entails a two-stage process: starting with the definition of the relevant market and following by an assessment of the market power within the relevant market of the concerned undertaking.

i. Relevant market

Before determining a dominant position of Google and Facebook, the relevant market needs to be defined. In competition law, products which can reasonably be interchanged are counted as the relevant market.<sup>103</sup> Defining the relevant market in the case of online platforms is not easy and straightforward. This is because the fact that the development of online platforms is fast-changing: online companies has expanded or invented a new way of its business to intersect and compete with other product market.

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<sup>103</sup> The European Commission's Notice on the definition of the relevant market explains that ‘a relevant product market comprises all those products and/or services which are regarded as interchangeable or substitutable by the consumer, by reason of the products' characteristics, their prices and their intended use’. (European Commission, ‘Commission notice on the definition of the relevant market for the purposes of Community competition law’ (OJ C372, 9 December 1997) para.7.

Consequently, the line-drawing of interchangeable product is blur and will make less sense to clarify over time.

For search engines such as Google, the European Commission's assessment in Google Shopping case provides that general search market is separated from other aggregators such as online merchant platforms, social media and specialised searches.<sup>104</sup> The high market share of Google is considered only from the narrow relevant market definition of general search engine market. The decision does not provide a clear distinction of why other information search services should be separated from general searches. However, it could be debatable that the relevant market of Google search engine should not be as narrow as a general search engine market and should broadly encompass any virtual search activities for information.<sup>105</sup>

Precisely, search engines now turn to Universal Search which displays results not only from Web sites but also from images, videos, news, maps, and products (replacing Ten Blue Links which displayed ten search results). Universal Search bridges many information search services to compete with each other by allowing a user to search for specific content such as books through a general search which negates the need to use specialised searches or online merchant search services. Also, Google organic search engines faces an aggressive competition for audience's attention with other finding information services such as specialised search engines, online merchant search services like Amazon, social media like Facebook and Twitter, and other tools.<sup>106</sup> These services are overlapping and competing with each other to provide search navigation for people and people can substitute these services for Google search engines in some circumstances. In case of the scope of the relevant market including other services, the market share of Google in the relevant market will decrease and it may not have a dominant position.

For social media such as Facebook, it is difficult to distinguish Facebook and other different types of social media to define relevant market. Social media which have

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<sup>104</sup> European Commission, 'Commission Decision Case AT.39740 - Google Search (Shopping)' Recital 161-190.

<sup>105</sup> Andrew Langford, 'gMonopoly' (2013) 88(4) Indiana Law Journal 1559, 1568; Eric Schmidt, 'The New Gründergeist' (Google Europe Blog, 13 October 2014) <<http://googlepolicyeurope.blogspot.be/2014/10/the-new-grundergeist.html>>; Amit Singhal, 'The Search for Harm' (Google Europe Blog, 15 April 2015) <<http://googleblog.blogspot.be/2015/04/the-search-for-harm.html>>.

<sup>106</sup> Ibid.

the features or functions similar to Facebook such as Myspace, Google +, Tumblr are clearly included in the relevant market. However, Facebook can be considered to compete with microblogging such as Twitter, content communities such as Flickr and YouTube and social curation such as BuzzFeed and Reddit. These sites are enabling the sharing of texts, pictures, videos, audio files, and applications which are overlapping and competing with Facebook. In practice, social media have many forms and some of them may overlap with each other: people can substitute these social media services with Facebook in some circumstances. Therefore, it causes practical problems if regulators try to differentiate the relevant market of each online platform. Due to the convergence of platform and technology, many online platforms combine various services and can reasonably be interchanged.

To summarise, there is an uncertainty whether Google is a dominant search engine and Facebook is a dominant social media. This is because it is difficult to indicate which market the European Commission will consider being under the scope of the relevant market. In other words, it is difficult to indicate a clear line or scope of the relevant market due to the fast-changing development of platforms. By changing the scope of the relevant market, Facebook and Google may not have a dominant position under competition law and Article 102 may not be applied to their manipulation of result recommendation to favour its own services.

## ii. Dominant position

Even if the relevant market can be defined, a dominant position or market power itself still needs to be identified. According to Google Shopping case, the decision concludes that Google is dominant in general search markets: the assessment of dominance is based on the fact that Google's general search engine has held exceeding 90 percent of market shares in most EU countries.<sup>107</sup> However, the fact that Google has a large market share does not always mean that it has a dominant position.<sup>108</sup> Market share alone, though is an important factor, is not sufficient to determine a dominant position.<sup>109</sup>

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<sup>107</sup> European Commission, 'Commission Decision Case AT.39740 - Google Search (Shopping)' Recital 273-284.

<sup>108</sup> Joyce Verhaert, 'The challenges involved with the application of article 102 TFEU to the new economy' (2014) 6 European Competition Law Review 272.

<sup>109</sup> European Commission, 'Decision Case Microsoft/Skype COMP/M.6281' para.99; 'Decision Case Microsoft/Yahoo! Search Business COMP/M.5727' para.99; *Cisco Systems Inc v European Commission* (T-79/12) (2013) at [67].

The assessment of market power is whether the constraint from the threat of rival competition exists. This needs to be considered in conjunction with many competitive factors.<sup>110</sup>

Particularly, the characteristics of the search engine market and social media market in the new economy market may address an uncertainty and a problem of applying Article 102.<sup>111</sup> The assessment of a dominant position in a relevant market of Google and Facebook is not easy and straightforward even in the case where the two selection intermediaries have a large market share in a general search engine market and social media market.<sup>112</sup> The challenges posed by the fast-paced markets may make Google and Facebook a leading competitor but not a dominant player with market power. The five characteristics of the digital sector and the difficulties they cause on EU Competition law will be examined as follows:

The first characteristic of a new economy market to be considered is ‘the intensive competition on innovation developments’. Continuously investing in the improvement of existing applications and refining existing platforms are crucial for the input of production and cost reduction. Therefore, to survive in the search engine and social media market, Google and Facebook have to provide a certain level of innovation and needs to keep improving constantly to compete with other operators.<sup>113</sup> For instance, by considering that consumers use digital platforms and applications for their own advantage, the competitive products in search engine market is the quality of search results<sup>114</sup>; it is not difficult (comparing to physical products) for competitors to produce better search results to suit the demand of users.<sup>115</sup> Consequently, although Google are now the leading search engine operator, it must preserve its higher innovation rates and have to provide a better quality of its search results than competitors to maintain its market leadership and keep users’ attraction on its service.

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<sup>110</sup> Andrew Langford, ‘gMonopoly’ (2013) 88(4) *Indiana Law Journal* 1559, 1573.

<sup>111</sup> Joyce Verhaert, ‘The challenges involved with the application of article 102 TFEU to the new economy’ (2014) Available at: [http://works.bepress.com/joyce\\_verhaert/1/](http://works.bepress.com/joyce_verhaert/1/), 268-269.

<sup>112</sup> Geoffrey Manne and Joshua Wright, ‘Google and the Limits of Antitrust’ (2011) 34(1) *Harvard Journal of Law and Public Policy* 194.

<sup>113</sup> OECD Competition Committee, ‘Competition Policy and Policy and Knowledge-Based Capital’ (OECD, 2013) 7.

<sup>114</sup> Commission, ‘Decision Case Microsoft Yahoo’ (Comp/M.5727, 18 February 2010) para. 101.

<sup>115</sup> Mark Patterson, ‘Google and Search Engine Market Power’ (2013) *Harv.J.L.Tech* 1, 4.

This means that if Google's innovation or the quality of search results declines, Google will lose its users to other search engine operators.<sup>116</sup> Google, therefore, does not have market power to act independently from its competitors. This characteristic of a new economy which is driven by the strong innovative competition makes it difficult to define dominant position of general search engine market and social media market.

The second characteristic of a new economy market is 'high fixed cost but low marginal cost'. Digital platforms usually have high sunk cost because the development of novel and original products requires enormous investments; but once the products are made, the developing costs of production are often low marginal costs. This characteristic compensates companies for the large capital investment and business risk by allowing them to charge above the marginal costs.<sup>117</sup> Therefore, for a dynamic competition to exist in digital market, it has a rational expectation for a significant market power to persist for a reasonable amount of time.

This characteristic of the digital platform market tends to cause a highly-concentrated market which supports the first movers to have the advantage and market power.<sup>118</sup> However, by considering the factual evidence of the past and present states of the online platform market, it shows that the high sunk cost does not create a barrier which allows the leading firms operators to have a dominant position. For example, Altavista and Yahoo! were once the leading search engine operators at the time when Google enters the market. Google did not only succeed in entering the market but also displaced its competitors. Therefore, this dynamic nature of the search engine market indicates that Google which is now the leading search engine operator in Europe is not insulated from the competitive threat.

The third and fourth characteristics of a new economy market are 'network effect' and 'two-sided market'. Network effect arises where the value of a product to its customer grows with the number of other users of the product. In two-sided platforms, network effect can be seen where a rise in the number of consumers increases the

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<sup>116</sup> Christian Kersting and Sebastian Dworschak, 'Does Google Hold a Dominant Market Position?' (2014) Available at SSRN: <https://ssrn.com/abstract=2495300>, 6.

<sup>117</sup> Christian Ahlborn et al., 'DG Comp's Discussion Paper on Article 82' (31 March 2006), 13.

<sup>118</sup> In case of search engine, sunk cost comes from investment in infrastructure to crawl rapidly expanding webs and index content, time consuming and data collected in developing search algorithm, sufficient users to attract advertising revenue (Andrew Langford, 'gMonopoly' (2013) 88(4) *Indiana Law Journal* 1559, 1574-1576).

attractiveness of the platform developers and vice-versa.<sup>119</sup> The major characteristic of the search engine market and social media market are the two-sided market which creates a network effect. For example, the value of social media for users depends on an increase of other users using that social media. This so-called direct network effect relates to the number of users in certain service. The more number of users, the greater utility those users receive directly.<sup>120</sup> They, therefore, create a barrier to entry and tend to reinforce leading company to become dominant players.

However, empirical studies oppose the literary assumption on network effect that adding more customers always makes a network more desirable no matter how large the network is already.<sup>121</sup> They show that the average Facebook user actively interacts with no more than a handful of people. The average social networking user is unable to maintain more than 150 connections at any particular time. Social media users are likely to place a particularly high value on a small subgroup of people. Therefore, the value of adding more connections beyond the core group is much lower.<sup>122</sup> These concerns are reflected in the commentary that Facebook is becoming too big and the increase of their size may not determine market power.

‘Switching cost’ is the fifth characteristic of the new economy market which is a factor to assess market power and identify a dominant position in the market. If people can easily switch from using one service to another without losing anything e.g. money and time to process, it tends to be that there is an intensive competition in the market. For example, in the social media market, the switch cost is a near-zero cost. People are ‘just one click away’ to other social media without incurring any penalties if they are unhappy with the services or community from their current social media platform.<sup>123</sup> In particular, they just type in a URL and download or install any software or sign up for an account. Although it can be argued that the cost for switching service is high due to network effects (for users to lose their community), users now utilise more than one social media in

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<sup>119</sup> OECD, ‘Hearings – The Digital Economy’ (DAF/COMP(2012)22, 7 February 2013), 8.

<sup>120</sup> Neal Finnegan, John Kwoka and Lawrence White, *The Antitrust Revolution* (OUP 2014) 520-527.

<sup>121</sup> See Paul Adams, *Grouped: How small groups of friends are the key to influence on the social web* (New Riders 2011), 23; Cameron Marlow, ‘Maintained Relationships on Facebook’ (OVERSTATED, 9 March 2009) <<http://overstated.net/2009/03/09/maintained-relationships-on-facebook>>; Sam Roberts and Robin Dunbar, ‘Communication in Social Networks’ (2011) 18 *Personal Relationships* 439, 450.

<sup>122</sup> Bob Briscoe et al., ‘Metcalfe’s Law is Wrong’ (IEEE SPECTRUM, 1 July 2006) <<https://spectrum.ieee.org/computing/networks/metcalfes-law-is-wrong>>; Rahul Tongia et al., ‘Turning Metcalfe on His Head’ (Telecommunications Policy Research Conference, September 2007).

<sup>123</sup> For search engines see Joshua Hazan, ‘Stop being evil’ (2013) 111(5) *Michigan Law Review* 789, 813.

parallel (so-called ‘multi-home’<sup>124</sup>) with the same community. Therefore, the ease to switch service providers constrains Facebook from exercising market power.<sup>125</sup>

In conclusion, there is an uncertainty whether Google and Facebook are the dominant undertaking in search engine and social media market. This is because the complication of the characteristics of the new economy market. Although Google has near monopoly of the market share in the general search engine market and Facebook has a large market share in social media market, various characteristics of the new economy market needed to be considered. In order to determine market power, the factors which have to take into account are such as the dynamic change in the digital platform market, the intensive competition of technological developments, the low switch cost, and the indirect network effect. Therefore, Google and Facebook may not have a dominant position under competition law and Article 102 may not be applied to these selection intermediaries for their manipulation of their result recommendation to favour its own services.

b. The anti-competitive conduct

Even if the relevant market can be defined and market power of selection intermediaries can be specified, a dominant position in the market in itself is not an offence under Article 102 which raises competitive concerns. To apply Article 102 to the selection intermediaries’ manipulation of search results, a dominant position in the market must be accompanied with the abuse of market power to prevent competition. The action of Google and Facebook will be an abuse of market power on the condition that such bias ‘must be sufficient in magnitude to exclude rival search engines [or social media] from achieving efficient scale’.<sup>126</sup> This section, then, considers whether the manipulation of result recommendation to favour their own content over other rival content can be regarded as an anti-competitive conduct.

There are concerns that the action of selection intermediaries in placing its own affiliated content at a more preferential position in its result recommendation and

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<sup>124</sup> ‘Over 60% of search engine visitors use at least two different search engines’ (<http://www accuracast.com/articles/search-articles/search-statistics/>)

<sup>125</sup> Marina Lao, ‘Neutral Search as a Basis for Antitrust Action?’ (Harv.J.L.Tech Occasional Paper Series, 4 April 2013) 7.

<sup>126</sup> Joshua Wright, ‘Defining and Measuring Search Bias’ (George Mason Law and Economics Research Paper No. 12-14, 3 November 2011) 8.

lowering the ranking of the other competing content will lead to the exclusion of competitors and have a significant effect on the competitive market.<sup>127</sup> Since users tend to click predominantly on the first few entries on the search engine or social media's screen, advertisers will most likely prefer to advertise on a higher ranking in result recommendation. Consequently, the downgrading content of other content generated sites will be reduced the revenue from the advertising and this practice eventually leads to the exclusion of these sites from selection intermediaries' platform.

However, there are counter arguments that the mere fact that Google or Facebook favours its own content cannot be implied as an anti-competitive conduct under Article 102.<sup>128</sup> The conduct of Google or Facebook in manipulating result recommendations can be considered as an efficient competitive strategy of these selection intermediaries in order to be different from their competitors; such conduct benefits consumers rather than an abuse of market power.<sup>129</sup> For example, Google may promote certain viewpoints of current affair or content of its business partnership over others in its search results. Facebook may conduct a policy of their platform which prefer certain content such as prioritising content produced by its sponsorship and preventing content generated from other social media platforms to be shared on Facebook. To be noteworthy, these actions may very well end up being a bad strategy from the consumer's viewpoints and users may prefer a different platform. Consequently, an alternative search engine or social media can be a competitive product substituted for Google and Facebook. Punishing selection

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<sup>127</sup> Fairsearch, 'Can Search Discrimination by a Monopolist Violate U.S. Antitrust Law?' (2011) <<http://www.fairsearch.org/wp-content/uploads/2011/07/Can-Search-Discrimination-by-a-Monopolist-Violate-U.S.-Antitrust-Laws1.pdf>>: 'Google has market power ... in ways that steer users to its own services and away from competitors--and thus deprive these competitors of the customers they need to survive.'; Fairsearch, 'Google's Transformation from Gateway to Gatekeeper' (2011) <<http://www.fairsearch.org/wp-content/uploads/2011/10/Googles-Transformation-from-Gateway-to-Gatekeeper.pdf>>: 'Whereas Google at one time sought to direct users as efficiently as possible to the sites most likely to respond to their queries, today Google tries to answer those queries directly with its own products'.

<sup>128</sup> See e.g. Marina Lao, 'Neutral' Search as a Basis for Antitrust Action?' (Harv.J.L.Tech Occasional Paper Series, 4 April 2013) 4.

<sup>129</sup> FTC, 'Statement of the Federal Trade Commission Regarding Google's Search Practices' (Google Inc., F.T.C. File No. 111-0163, 3 January 2013) 3: 'Product design is an important dimension of competition and condemning legitimate product improvements risks harming consumers. Reasonable minds may differ as to the best way to design a search results page and the best way to allocate space among organic links, paid advertisements, and other features. ... Challenging Google's product design decisions in this case would require the Commission – or a court – to second-guess a firm's product design decisions where plausible procompetitive justifications have been offered, and where those justifications are supported by ample evidence.' and 'Google's display of its own content could plausibly be viewed as an improvement in the overall quality of Google's search product.'

intermediaries for favouring certain content may reject the competitive process where customers are free to choose from various search and social media platforms.

Also, it is questionable whether these conducts are not abusive but instead a disruptive innovation resulting in the introduction of new products. One of the characteristics of a new economy market is disruptive innovation. Disruptive innovation refers to new technologies that displace existing markets: it also referred to as ‘dynamic competition’ or ‘competition for the market’.<sup>130</sup> While price has traditionally been the main competition for conventional competition, in dynamic competition such as in the online business, innovation becomes a relevant parameter for competition.<sup>131</sup> Especially where users get access with zero prices to online services such as search engines and social networks, their choice is based on quality and the level of innovation. Innovation can result in the improvement of existing products or in new business models that displace the earlier and create a new market.

The success of Google and Facebook in the new digital economy comes from their pioneer in the design of complex and innovative algorithms. In particular, the competitive advantage from Google’s complex algorithms design is the creation of new markets which improve customer’s experience and satisfaction.<sup>132</sup> Competition law focuses on the action of consumer harm and quality-related product degradation, not a harm to only a group of competitors. The prevention of certain business and the punishment for introducing innovative products conflicts with the key objectives of competition law. As Atkinson comments for Google Shopping case:

‘Today’s ruling is bad for consumers and bad for innovation. ... The EU’s actions have created a cloud of uncertainty that will make large tech companies overly cautious about making changes to the user experience and service offerings that would benefit consumers.’<sup>133</sup>

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<sup>130</sup> See Clayton Christensen, *The Innovator's Dilemma* (HBSP 1997)

<sup>131</sup> J. Gregory Sidak and David Teece, ‘Dynamic Competition in Antitrust Law’ (2009) 5(4) J.C.L.E 581, 585

<sup>132</sup> Andrea Renda, ‘Searching for harm or harming search?’ (CEPS Report no. 118, September 2015).

<sup>133</sup> Robert Atkinson, ‘Record EU Fine Against Google Risks Creating New “Too Big To Innovate” Standard’ (ITIF, 27 June 2017) <<https://itif.org/publications/2017/06/27/record-eu-fine-against-google-risks-creating-too-big-innovate-standard>>.

Therefore, to impose any punishment under competition law, it must be clear that there is significant impact to anticompetitive foreclose or the harm caused to the competitive process, not just to a single or group of competitors.<sup>134</sup> As a result, the European Commission and the court may hesitate to identify the manipulation of result recommendations to favour certain content as an anti-competitive conduct and may be reluctant to apply Article 102 to Google and Facebook.

It can be considered that Google and Facebook, which holds the large amount of market share in organic search engine market and social media market in Europe, has more responsibility than its competitors to refrain from doing some conducts concerning competition issues.<sup>135</sup> As the ECJ stated, a firm in a dominant position has a ‘special responsibility’<sup>136</sup> and this special duty becomes even greater if a firm is in a super-dominant position.<sup>137</sup> However, this special responsibility does not prevent Google and Facebook from protecting its own interests when it competes with competitors. In particular, Google merely has the special responsibility to refrain from the ‘methods different from those which condition normal competition’<sup>138</sup>, known as ‘compete on the merit’. Therefore, the special responsibility of Google does not include the abstention from favouring their services in search results.

In conclusion, the manipulation of result recommendation to favour certain content is doubtfully considered as anti-competitive conducts under competition law. Therefore, there is a limitation of the application of Article 102 in order to regulate the Google and Facebook’s manipulation of result recommendations. Given the scale and variety of the problems in applying competition law on a new economy market such as

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<sup>134</sup> Richard Whish and David Bailey, *Competition Law* (7th edn, Oxford University Press 2012) 196-197.

<sup>135</sup> Paul Craig and Grinne de Búrca, *EU Law text, cases and materials* (5th ed, OUP 2011) 1025; Richard Whish and David Bailey, *Competition Law* (7th ed, OUP 2012) 192.

<sup>136</sup> Paul Craig and Grinne de Búrca, *EU Law text, cases and materials* (5th ed, OUP 2011) 1025; Richard Whish and David Bailey, *Competition Law* (7th ed, OUP 2012) 192.

<sup>137</sup> Opinion of AG Fenelly in Cases C-395/96 *Compagnie Maritime Belge NV and Dafra-Lines v. Commission*, 29.10.998, (2000) ECR I-1365; Court of Justice Case T-83/91, *Tetra Pak International v. Commission*, 6.10.1994, II (1994) ECR 755; Court of Justice Case T-228/97, *Irish Sugar v. Commission*, 7.10.1999, (1999) II ECR 2969.

<sup>138</sup> Court of Justice Case 85/76, *Hoffmann-La Roche & Co. AG v. Commission (Vitamins)*, 13.2.1979 ECR 461.

Google and Facebook, the illustration arises that competition law is not an appropriate tool to deal with the abusive power in online platform.

The analysis of the example situation when big selection intermediaries prioritising their own affiliated content illustrates that competition law cannot effectively be applied to control the actions of selection intermediaries which adversely affect exposure diversity. Considering the characteristics of digital markets that put competition enforcement into difficulties when assessing uncompetitive conduct, a regulatory in other areas of law is probably more appropriate than reliance only on competition law.

Also, it is worth emphasising that the limitation of competition law in promoting exposure diversity comes from the distinction between the objectives and concerns of competition law and those of exposure diversity. While almost every action of selection intermediaries can influence the volume of diverse contents exposed to people, all of these actions do not tend to be considered as an abuse of market power. Therefore, competition law is not appropriate and suitable to regulate selection intermediaries to influence diversity of viewpoints exposed to citizen.

### 3. The remedy of competition law

As discussed in the previous section, Article 102 is not effective to regulate selection intermediaries to achieve exposure diversity. However, it is worthy to examine whether the remedy in competition law can be applied to encourage diversity of exposure. As an example, this section will draw an analogy from the remedy proposed in the Google Shopping case. Even though the Google Shopping case is specifically concerning competition law, the action of Google in this case can also be drawn an analogy to the effects of diverse content exposed to people. It is, therefore, crucial to examine the remedy imposed in this case whether competition law (i.e. Article 102 TFEU) can be used to prevent operations of search engines which negatively affect exposure diversity.

The relevant abusive conduct stated in the Google Shopping case is that (by using Universal Search) Google displays the picture and information of individual product advertisements (which are shared the database from Google Shopping) at the top of organic search results (known as Shopping Unit). The Commission imposes a large fine (2.42 billion euros) on Google and requires Google to cease the infringement. However, the decision does not impose a specific remedy but leaves it up to Google to choose a

remedy that will effectively bring the alleged abuse to an end.<sup>139</sup> It only provides that any measure chosen must give an equal treatment and ensure that rival services and Google's service are treated no less favourably.

The remedy imposed on Google in Google Shopping case is problematic such as when it is analogous to News Unit. When users search for news, Google also displays search result in the form of Universal Search called News Unit. Therefore when applying the imposed remedy on news instead of shopping sites, Google is prohibited to display a news list from Google News database at the top of the general search results (although the news list is linked to news publishers' sites, not to the Google News page). However, the requirement to cease the abusive conduct by the Commission is not clear and does not guarantee whether the Google response will sufficiently promote exposure diversity. Particularly, Google may choose to cease showing a News Unit at the top of search results which negatively decreases a chance of diverse content noticeably presented to people. Notably, the provision of diverse content providers may not be considered as the competition requirement to 'treat equally'.

On the 27<sup>th</sup> of September 2017, Google implemented its chosen remedy by introducing an arms-length auction which rival comparison shopping services and Google Shopping bid (on equal terms) to appear on Shopping Unit displayed at the top of the general search results pages. Also, Google Shopping now operates as a separate business from Shopping Unit and needs to be profitable in its own right.<sup>140</sup> By analogy to news, it means that Google separate the links and database between Google News and news listed displayed at the top of the general search results. Also, it provides a chance to include rival news aggregators and its Google news in News Unit, on equal terms. This conduct may increase a chance for a variety of news aggregators to appear and to be noticed by people. However, this remedy does not expand the diversity of the provision of original news sources. The number of original news publishers, furthermore, will be diminished from displaying in News Unit since they have to compete with news aggregators. Consequently, the quality of diverse content exposed to people decreases. Therefore, the remedy in competition may not be applicable to achieve exposure diversity.

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<sup>139</sup> European Commission, 'Decision Case AT.39740 - Google Search (Shopping)', Article 3.

<sup>140</sup> MLex Insight, 'Google's new shopping box aims to comply with EU antitrust order' (27 September 2017) <<http://www.mlex.com/GlobalAntitrust/DetailView.aspx?cid=923302&siteid=190&rdir=1>>.

Although the Commission's remedy is not effective to achieve exposure diversity, there is a commitment proposed by Google under Article 9 of the EU Antitrust Regulation (EC) No 1/2003 which worth mentioning. Before the start of the formal investigation process, the Commission had negotiated a settlement with Google to bring the investigation to an end.<sup>141</sup> Google offered several commitments in April 2013 to meet the identified concerns. However, the Commission considers that the Google's commitment proposals are insufficient to address its competition concerns. Consequently, the Commission has sent a Statement of Objections to Google. Although the proposed commitments concern the issues relating to competition law, it is worth examining whether the approaches proposed by Google can be used to promote exposure diversity.

Google proposed the commitment to the European Commission that:

(i) Google will label its own specialised search services in order to distinguish them from natural web search results and will separate its own specialised search services from others by providing clear graphical features.

(ii) Google will display links to three rival specialised search services close to its own services and in a format which is visually comparable to that of links to its own services. For instance, if the Google links have images, the rival links will have images as well.<sup>142</sup>

For the first approach, the distinguished label informs people to differentiate the web sites belonging to Google from other web sites. People, therefore, will find it is easier to identify different sources they consume. Moreover, where applicable, the label will also inform users of where people can find links to alternative web sites. This will also encourage people to compare various sources appeared in search results. Therefore, the label approach assists people to be more aware of the sources they choose and who own the outlets. If the label approach extends to differentiate between normal websites (not only Google services), it can encourage people to be more concerned about diverse sources they consume.

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<sup>141</sup> European Commission, 'Statement of VP Almunia on the Google antitrust investigation' (SPEECH/12/372, 21 May 2012).

<sup>142</sup> Google, 'Commitments in Case COMP/C-3/39.740 - Foundem and others' (3 April 2013) <[http://ec.europa.eu/competition/antitrust/cases/dec\\_docs/39740/39740\\_8608\\_5.pdf](http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_8608_5.pdf)>

For the approach of providing links of rival search services near to links of its own services, this approach clearly assists other websites to be significantly more visible. Besides, rival sites have the possibility to display their logo and text associated to its link to better inform the people of its content. Thus, it will aid people to be clearly aware of the presence of other sources. This will give people a real choice between different options and will benefit them to choose diversely and compare content wisely. This approach, therefore, will be able to encourage diverse content exposed to people.

In conclusion, although the proposed commitment by Google concerns the issues relating to competition law, it can be considered as possible measures to be applied to promote diversity of exposure. The commitment proposed by Google illustrates that exposure diversity can be promoted by the design of technical structure of selection intermediaries, e.g. screen features, functions and algorithms. It can be in the forms of displaying more choices to easily be noticed or informing people to be aware of the sources they choose. However, it should be noted that this proposal is not initiated by the goodwill of Google itself but by the pressure of the enforcement under competition law. Although competition law is not a sufficient instrument to encourage exposure diversity, the investigation process of competition law can force Google to provide the improvement of its operation which has a positive effect on exposure diversity. Therefore, the commitment proposed by Google is an example that selection intermediaries can assist people to be exposed to more diverse content; and this has to be done by the legal obligation. The next part, therefore, examines the possible measures which should be imposed on selection intermediaries in order to have an active role to encourage exposure diversity.

To summarise, this chapter analyses the limitations of the application of the existing specific media laws and competition law to regulate selection intermediaries in order to achieve exposure diversity. It illustrates that the current existing laws are not effective and suitable to regulate selection intermediaries to achieve diversity of viewpoints exposed to citizen.

The current existing media regulation, particularly the AVMSD, and the current media policies are still on the design of traditional media structure which is a TV-like service. It also traditionally focuses on diversity of sources and diversity of content, rather

than on diversity of exposure. The measure to promote people exposing to diverse content is still an issue that has rarely been considered. Competition law is also unable to be applied to protect diversity of viewpoints exposed to people. This is because of the distinction between the goals of competition law and exposure diversity. Also, competition law faces various problems in the application on a new economy market so it has limitation to regulate selection intermediaries.

To encourage exposure diversity, this thesis proposes that media law can take a positive role to create the conditions which encourage people to actually exploit selection intermediaries in order to effectively expose themselves to diverse content. In particular, there should be obligations imposed on selection intermediaries to have an active role and duty to assist people to expose themselves to more diverse content. These active duties can be achieved by legal instruments. While these instruments have been adopted in other fields of law, they have not been applied to safeguard diversity of exposure in the context of selection intermediaries. How these possible legal instruments will be applied to promote exposure diversity will be further discussed in the next chapter.

## **Chapter 4**

### **Creating a new regulatory regime: the imposition on selection intermediaries to promote exposure diversity**

As discussed in Chapter 3, the existing media laws and competition laws, are not adequate and appropriate to regulate selection intermediaries to encourage exposure diversity. Although it is obvious that the government cannot force people to consume particular content from selection intermediaries, it does not mean that the government cannot play an active role in promoting and facilitating exposure diversity. Therefore, this chapter will discuss appropriate approaches apart from media law and competition law to govern selection intermediaries in order to encourage people to consume more diverse content.

It should, however, be noted that it is beyond the scope of this thesis to answer what level of exposure diversity should be achieved. This is because this thesis is based on the perspective that the government should not determine the optimal amount of diverse content people should consume. Instead, the thesis suggests that media law should assist people to be more aware of the choices they select from these intermediaries and should create requirements which selection intermediaries will operate in order to encourage people to access diverse choices.

As discussed in Chapter 1, the media landscape has significantly changed in three ways: access to information through links, increasing influence of selection intermediaries' technical structures, and empowerment but skills deficiency of audience. These factors prevent people from being exposed to diverse content. To achieve exposure diversity, this chapter will, therefore, propose possible approaches to deal with these constraints by exploring three relevant measures to regulate selection intermediaries.

The chapter is divided into three parts. The first part considers the role of selection intermediaries in provide access through links. Since selection intermediaries have certain characteristics combining those of telecommunication service providers and media entities, the concepts of net neutrality and impartiality will be analysed. As the influence of technical structures of selection intermediaries is becoming crucial, the second part then discusses the concept of 'diversity by design' that is, selection intermediaries could

design the algorithms, functions and screen features of their services so as to encourage people to consume diverse content. It is noteworthy that the first measure of net neutrality and impartiality and the second approach of diversity by design complement each other. The last part of this chapter will analyse the approach of media literacy to propose that selection intermediaries should have an obligation to assist the improvement of people's skills and knowledge to access to more diverse content.

## **Part I: The Role of Selection Intermediaries in Providing Access to Information**

In the current media landscape, people access information through links provided by selection intermediaries (as criticised in Chapter 1). Provision of links by selection intermediaries however involves bias due to its operation and nature such as result recommendations display. Information accessibility influenced by selection intermediaries' bias has a significant effect on exposure diversity. This part therefore discusses the role of selection intermediaries in providing links for people to access to available information. It suggests that exposure diversity can be guaranteed by imposing certain obligations on selection intermediaries to provide people with actual ability to access diverse information on the Internet.

This part will first explore the problem of the bias in providing information of selection intermediaries; it will then discuss controversial perspectives regarding the role of selection intermediaries in providing access to information. Since selection intermediaries have certain characteristics, combining those of telecommunication service providers and media entities, the application of net neutrality and impartiality on selection intermediaries in relation to exposure diversity will be analysed respectively in the third and fourth sections.

### *1. The problem of information accessibility and bias of selection intermediaries*

One of the elements to achieve exposure diversity is the provision of access to sufficient information. The more information people can access in their common life, the greater possibility for them to face alternative viewpoints and to consume greater variety of content. Therefore, constraints of information accessibility can obviously affect the

diversity of content people are exposed to.<sup>1</sup> This also raises an issue of access control to available content by selection intermediaries.

The operations of selection intermediaries are not neutral; rather they impose criteria of discrimination to degrade some content from people's attention. Such manipulation of recommended results, which is usually referred to as 'bias', covers a broad range of different forms.<sup>2</sup> As can be seen in Figure 1 below, bias of a selection intermediary can occur in any processes; it can be influenced by many factors, and it has various actions such as filtering, prioritisation, classification, and blocking.<sup>3</sup> It is worthy of concern that the process of providing information should not be considered detrimental as it is a normal operation to serve its purpose. If the law specifically forces certain process, it would interrupt the innovation of technology. Also, to get rid of all bias is not sensible and practical. Therefore, to guarantee access to diverse content, this thesis will propose that a certain responsibility should be imposed on selection intermediaries in general to prevent arbitrary and unacceptable bias.

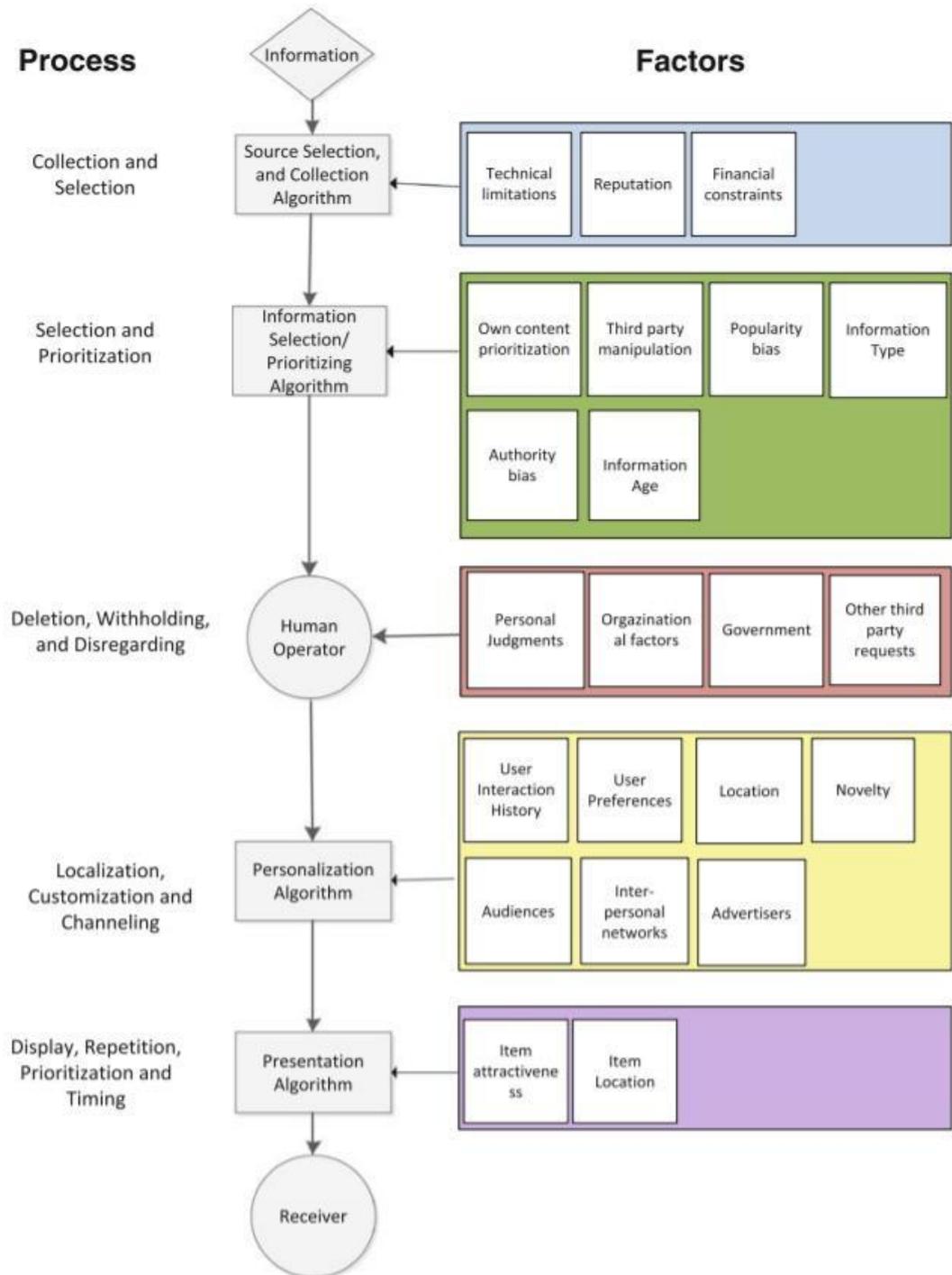
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<sup>1</sup> Eszter Hargittai, 'The Digital Divide and What to Do About It' in Derek Jones (ed), *New Economy Handbook* (Academic Press 2003) 821, 839.

<sup>2</sup> For discussion about bias see e.g. Geoffrey Manne and Joshua Wright, 'If Search Neutrality is the Answer, What's the Question?' (George Mason Law and Economics Research Paper No. 11-37, 4-14, 7 April 2011); Benjamin Edelman, 'Bias in Search Results?' (2011) 7 *Indian Journal of Law and Technology* 16, 21-24; James Webster, 'User information regimes' (2010) 104(2) *Nw.U.L.Rev* 593, 601-608.

<sup>3</sup> See Nicholas Diakopoulos, 'Algorithmic Accountability' (2015) 3(3) *Digital Journalism* 398, 400-402.

Figure 1: Bias in selection intermediaries<sup>4</sup>



The manipulation of recommendation results is not merely about algorithms but includes manual human interventions.<sup>5</sup> It will either be a completely specific

<sup>4</sup> Engin Bozdag, 'Bias in algorithmic filtering and personalization' (2013) 15(3) Ethics and Information Technology 209, 215.

<sup>5</sup> For example, human may block, censor or double-check results from algorithms. Humans may also affect at the design stage of the algorithms, i.e. which factors to include in the algorithm, and how to weigh them. See Chapter 2.

manipulation or a general bias; and it may involve intentional or indirectly prioritisation of certain types of information over others.<sup>6</sup> Bias is also caused by many reasons: to satisfy users, for the interest of third parties, and to serve their own self-interest.<sup>7</sup> For instance, a popularity algorithm gives more weight to information coming from popular websites to serve the topics most people are interested in. Selection intermediaries can also positively or negatively shape their results in response to: an exchange for payment of advertising, a threat of a competitive challenge, or a disapproval of a page/website's policies.

The bias of selection intermediaries may adversely reduce the flow of information and undermine the accessibility of information and exposure diversity. In this regard, the European Commission has expressed concern about the manipulation power and the bottleneck control that selection intermediaries can exploit.<sup>8</sup> Also, the CoE has underlined 'the importance of free or affordable access to content and services in view of the convergence of the media and new communication service sectors'.<sup>9</sup> Therefore, the actual ability to access information without any unreasonable distortions of selection intermediaries is profoundly concerning.

To encourage exposure diversity, selection intermediaries must have certain responsibility to refrain from producing unreasonable discrimination of content. Since selection intermediaries have certain characteristics combining those of telecommunication service providers and media entities, it is therefore important to investigate the role of selection intermediaries in order to determine appropriate responsibility for selection intermediaries in terms of exposure diversity. The next

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<sup>6</sup> E.g. The punishment of search engine optimization. Facebook treats video and pictures as more important than links and status updates (Dan Taylor, 'Everything you need to know about Facebook's Edgerank' (The Next Web, 9 May 2011) <<https://thenextweb.com/socialmedia/2011/05/09/everything-you-need-to-know-about-facebooks-edgerank/>>).

<sup>7</sup> E.g. Google promotes content from its social networking platform Google Plus into Google search results (Simon Brace, 'Google search plus your world- bad for the Internet?' (2012) <<https://www.realadventure.co.uk/crm-life/google-search-plus-your-world-bad-for-the-internet/>>). Facebook is criticised for favouring the products of its partners (Jennifer Fong, 'Facebook's bias against 3rd party apps' (1 November 2011) <<http://www.jenfongspeaks.com/facebooks-bias-against-3rd-party-apps/>>).

<sup>8</sup> European Commission, 'Media Pluralism in the Member States of the European Union' 32.

<sup>9</sup> Recommendation Rec(2007) 1 on promoting freedom of expression and information in the new information and communications environment; CoE, 'Declaration on freedom of communication on the Internet' (CoE, 28 May 2003); See also UNESCO, 'Convention on the protection and promotion of the diversity of cultural expressions' (UNESCO, 20 October 2005) Article 2 No 7.

section, then, explores the controversial perspectives about the characters of selection intermediaries.

## 2. The controversial perspectives of the characters of selection intermediaries

This section analyses the controversial issue about the characteristics of selection intermediaries. Although discussions to date have mostly focused on search engines and various platforms (e.g. social network, app store and online market platform) relating to the context of free speech and competition law, the arguments can be specifically adapted to selection intermediaries in the context of exposure diversity. There are two main different perspectives of how these intermediaries should be treated. First, the ‘conduit communication’ perspective recognises selection intermediaries as a passive gatekeeper under telecommunication law. As a result, selection intermediaries should be neutral. Another, the ‘editor perspective’, regards these intermediaries as media companies which should not be regulated and views a bias in result recommendations as acceptable. This section then criticises that both perspectives have some aspects that benefit the encouragement of exposure diversity.

### a. Selection intermediaries as conduit communicators

The ‘conduit communicators’ perspective can be easily illustrated by drawing an analogy between selection intermediaries and common carriers.<sup>10</sup> The function of new intermediaries is the main map of the network of information.<sup>11</sup> Pasquale describes these new intermediaries as an essential cultural and political gatekeeper.<sup>12</sup> As he describes:

‘Internet intermediaries govern online life. Internet service providers (ISPs) and search engines are particularly central to the web's ecology. Users rely on search services to map the web for them and use ISPs to connect to one another.’<sup>13</sup>

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<sup>10</sup> A ‘common carrier’ is a company whose main business is transporting things on behalf of people. The term may also refer to telecommunication service providers and public utilities. A common carrier provides services to the general public without discrimination.

<sup>11</sup> Lucas Introna and Helen Nissenbaum, ‘Shaping the Web’, (2000) 16 *The Information Society* 169, 17

<sup>12</sup> Frank Pasquale, ‘Dominant Search Engines’ in Berin Szoka and Adam Marcus (eds), *The Next Digital Decade* (TechFreedom 2010) 401, 402.

<sup>13</sup> Frank Pasquale, ‘Beyond innovation and competition’ (2010) 104(1) *Nw.U.L.Rev* 105, 105-106; *See also* Oren Bracha and Frank Pasquale, ‘Federal Search Commission?’, (2008) 93 *Cornell Law Review* 1149, 1206–1209.

Also, Levine comments that ‘social networks are a critical layer of infrastructure for a wide variety of applications and content’ and ‘they are the 21st century version of AT&T, of RCA, of the Motion Picture Patents Company’.<sup>14</sup> Thus, advocates of this opinion recognised these selection intermediaries as a kind of communication infrastructure delivering traffic to content providers.<sup>15</sup>

With this perspective, scholars focus on what intermediaries can do. They are concerned about the power of these selection intermediaries to skew the viewpoints of people by discriminating against certain groups and favouring others.<sup>16</sup> Content providers utterly depend on these intermediaries to choose what make visible or invisible in the public sphere. Therefore, according to the ‘conduit communication’ perspective, selection intermediaries should be prevented from exploiting their power to obstruct the expression of content providers.<sup>17</sup> A simple analogy is that an ideal map of the network of information should be accuracy and objectivity. They should be regulated to effectively assist speakers in connecting to audiences.

According to this perspective, to regulate selection intermediaries, non-discriminatory principles of telecommunications law, such as common carrier roles of telephone and network neutrality, should extend to these intermediaries. Although the advocates of the ‘conduit communication’ perspective all agree that non-discriminatory principles should be applied, it is not clear how the operation of selection intermediaries is non-discriminatory. There are many opinions on the interpretation of non-discriminatory principles to selection intermediaries. Some scholars argue that selection intermediaries should be treated similarly to telecommunications entities, that is, regarded as a common carrier carrying the speech of others on an objective basis.<sup>18</sup>

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<sup>14</sup> Jake Levine, ‘It’s Time for Social Network Neutrality’ (Business Insider, 18 July 2011) <<http://www.businessinsider.com/its-time-for-a-social-network-neutrality-2011-7>>.

<sup>15</sup> Adam Raff and Shivaun Raff, ‘Penalties, Self-Preferencing, and Panda’ (Foundem, 31 August 2011) <[http://www.foundem.co.uk/Google\\_Conflict\\_of\\_Interest.pdf](http://www.foundem.co.uk/Google_Conflict_of_Interest.pdf)>.

<sup>16</sup> See Allan K. ‘17, ‘neutrality isn’t about objectivity’ (MITAdmissions, 20 May 2016) <<http://mitadmissions.org/blogs/entry/neutrality-isnt-about-objectivity-its-about-who-has-the-power>>; Benjamin Edelman, ‘Bias in Search Results?’, (2011) 7 The Indian Journal of Law and Technology 16, 32; BEUC, ‘Fair Internet Search’ (BEUC, 8 March 2013) 5 <<http://www.beuc.eu/publications/2013-00211-01-e.pdf>>

<sup>17</sup> See Frank Pasquale, ‘Platform Neutrality’ (2016) 17 Theoretical Inquiries in Law 487.

<sup>18</sup> See Wei Gao and Yao Yang, ‘An updated common carrier approach to regulate platform service providers’ (2015) 31(3) Computer Law and Security Review 412; Jake Levine, ‘It’s Time for Social Network Neutrality’ (Business Insider, 18 July 2011) <<http://www.businessinsider.com/its-time-for-a-social-network-neutrality-2011-7>>.

Nevertheless, the characteristics of selection intermediaries are distinguished from those of telecommunication network providers. An Internet service provider is an indispensable tool to access information online so it cannot be replaced in any circumstance. It exists to connect users to the network and can treat everyone similarly on a non-discriminatory basis. With this role of an Internet service provider, it is reasonable to restrict the action of this service provider in order to encourage free speech of content providers to reach the audience. If the Internet service provider can block or choose which content can flow through its service, it will be harmful to diversity of content the audience is exposed to. This characteristic of telecommunication service provider is different from selection intermediaries. Selection intermediaries do not just facilitate accessibility to information available on the Internet. They also decide and select content providers to match users' preferences. Due to its nature and purpose, selection intermediaries cannot provide equal access to everything on the Web. Because of its hierarchical structure, a selection intermediary has to list some content on the top of its page or result recommendation while some other content will have to be on the bottom or even on the next pages. Therefore, applying the objective role of telecommunication providers to selection intermediaries can be considered as an excessive restriction of these intermediaries.<sup>19</sup>

The natural characteristic of selection intermediaries as delineated above is valuable for Internet users to find content in the vast online environment. Exposure diversity does not mean that people face overwhelming, chaotic, viewing choices; rather it means that people must have the ability to choose a diverse range of information. This ability is assisted by the operation of selection intermediaries. Therefore, the operation of selection intermediaries to select which content to be displayed does not always threaten exposure diversity; instead it can be an instrument to achieve the diversity goal. Forcing selection intermediaries to operate objectively as telecommunications entities may not be practical and may not have a positive effect on the encouragement of exposure diversity.

By addressing these differences between selection intermediaries and broadband network providers, it is evident that the principles of non-discrimination applied to

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<sup>19</sup> See Dean Bubley, 'So-called "Platform Neutrality" is nothing to do with Net Neutrality' (LinkedIn, 17 July 2014) <<https://www.linkedin.com/pulse/20140717131104-610434-so-called-platform-neutrality-is-nothing-to-do-with-net-neutrality>>; Jens-Henrik Jeppesen, 'French and German Ministers Should Not Confuse Platform Neutrality with Net Neutrality' (CDT, 18 December 2014) <<https://cdt.org/blog/french-and-german-ministers-should-not-confuse-platform-neutrality-with-net-neutrality/>>.

telecommunication network providers cannot be directly imposed on selection intermediaries; they can reasonably be applied to selection intermediaries to some extent. Some scholars suggest that certain aspects of the non-discrimination principles can be applied to selection intermediaries. Pasquale proposes that the universal service principle of net neutrality (which prevents Internet service providers to block legal content and applications) can be applied to selection intermediaries by prohibiting the ‘denial of access to copyrighted works once they are indexed’.<sup>20</sup> Besides, he suggests that:

‘search engines’ concern about the applications and content disadvantaged by carrier fast-tracking should lead them to provide annotation remedies to indexed sites whose marks have been unfairly occluded by the search process.’<sup>21</sup>

Chandler also applies net neutrality on selection intermediaries by suggesting that ‘search engines should not remove websites from their indices unless required by law to do so’.<sup>22</sup> Besides, search engines should not manipulate individual search results except to address instances of suspected abuse of the system.<sup>23</sup> Significantly, paid advertisements and organic search results have to be made distinctively.

Pasquale and Chandler do not treat selection intermediaries to be as objective as telecommunications entities but apply some non-discriminatory principles i.e. net neutrality to harmonise with the nature of selection intermediaries. This way of interpreting net neutrality principles for selection intermediaries is practical and benefits exposure diversity. Imposing some degree of objectivity on selection intermediaries such as preventing unreasonable blocking will encourage accessibility to variety of content providers. As a result, exposure diversity is protected from unreasonable bias and from abusive manipulation of result recommendations by selection intermediaries. The application of ‘net neutrality’ to selection intermediaries will be further discussed in section 3.

#### b. Selection Intermediaries are media entities with editorial control

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<sup>20</sup> Frank Pasquale, ‘Internet Nondiscrimination Principles’ (2008) 1 University of Chicago Legal Forum 263, 289.

<sup>21</sup> Ibid, 299; See also Frank Pasquale, ‘Asterisk Revisited’, (2008) 3(1) Journal of Business and Technology Law 61.

<sup>22</sup> Jennifer Chandler, ‘A Right to Reach an Audience’ (2007) 35(3) Hofstra Law Review 1095, 1117.

<sup>23</sup> Ibid.

While the ‘conduit communicator’ perspective focuses on the influence of selection intermediaries, scholars of the ‘editorial perspective’ are concerned about the right of these intermediaries. Advocates of this ‘editorial perspective’ accept the subjective nature of selection intermediaries; they consider the provision of result recommendations as the opinion of these selection intermediaries.<sup>24</sup> Instead of preferring non-discriminatory principles (i.e. net neutrality) like the ‘conduit communicator’ perspective does, the ‘editorial perspective’ embraces bias. As Eric Goldman presents:

‘From my perspective, search engine bias is the unavoidable consequence of search engines exercising editorial control over their databases. . . . search engines simply cannot passively and neutrally redistribute third party content...’ and

‘Search engine bias sounds scary, but . . . such bias is both necessary and desirable.’<sup>25</sup>

Also, Tufekci comments that everyone should drop the pretence that selection intermediaries are neutral: ‘Facebook is biased. That’s true... That’s how its algorithm works, and how it determines what more than a billion people see every day’ and ‘algorithms used in such subjective decision making can never be truly neutral, objective or scientific’.<sup>26</sup>

This ‘editorial perspective’ recognises that bias is a valuable and advantageous point of selection intermediaries. Grimmelmann states that people prefer to depend on editorial judgment when they use these services.<sup>27</sup> Bias is inherent in these selection intermediaries: the process must systematically give priority to certain types of content over others. If these intermediaries do not exercise editorial control, their system will quickly and inevitably be anarchic and worthless to users.<sup>28</sup> Thus, requiring selection

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<sup>24</sup> Marvin Ammori and Luke Pelican, ‘Competitors’ Proposed Remedies for Search Bias’ (2012) 15 *Journal of Internet Law* 1.

<sup>25</sup> Eric Goldman, ‘Search Engine Bias and the Demise of Search Engine Utopianism’ (2006) 8 *Yale Journal of Law and Technology* 111, 112, 118; See also Mike Masnick, ‘A Recommendation Is Not the Same as Corruption’ (Techdirt, 21 June 2010) <<http://www.techdirt.com/articles/20100621/0355239887.shtml>>; Christopher Yoo, ‘Free Speech and the Myth of the Internet as an Unintermediated Experience’, (2010) 78 *George Washington Law Review* 697, 708.

<sup>26</sup> Zeynep Tufekci, ‘The Real Bias Built in at Facebook’ (The New York Times, 19 May 2016) <<https://www.nytimes.com/2016/05/19/opinion/the-real-bias-built-in-at-facebook.html>>.

<sup>27</sup> James Grimmelmann, ‘Some Skepticism About Search Neutrality’, in Berin Szoka and Adam Marcus (eds) *The Next Digital Decade* (TechFreedom 2010) 435, 442-443.

<sup>28</sup> Jeffrey Jarosch, ‘Novel Neutrality Claims against Internet Platforms’ (2011) 59 *Cleveland State Law Review* 537, 585-587.

intermediaries to apply non-discrimination principles is both impossible and undesirable.<sup>29</sup>

Besides, the speech of selection intermediaries is at the heart of the ‘editorial perspective’, not the accessibility of the public to content providers. Selection intermediaries are regarded as speakers themselves by analogy with media companies. As Volokh and Falk illustrate:

‘... Search exercise editorial judgment about what constitutes useful information and convey that information—which is to say, they speak—to their users. In this respect, they are analogous to newspapers and book publishers that convey a wide range of information from news stories and selected columns by outside contributors ...’<sup>30</sup>

Also, Bilton comments that:

‘There’s also the question of how much responsibility Facebook has .... In that respect, the biases of human editors might be a feature, not a bug. News organizations regularly make similar editorial judgments. As Facebook becomes an increasingly central news source for its users, there’s a lot more pressure for it to act like a legitimate one.’<sup>31</sup>

The scholars of this view illustrate that the process of providing result recommendations (which involves selecting and ranking results then choosing a short title and excerpt of referred pages) necessitates editorial judgement like newspapers’ judgement about which content is worth to run and where to place it within a newspaper. Though there are some differences, they all have the same core of editorial control function, which is the decision to exclude irrelevance out of thousands of possible items.<sup>32</sup> These selection intermediaries, therefore, should be protected by freedom of speech. They should be free to present any viewpoints and should not be forced to link to any content

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<sup>29</sup> Ibid, 443; see also Marvin Ammori, ‘Failed Analogies’ in Aitor Ortiz (ed.), *Internet Competition and Regulation of Online Platforms* (CPI 2016) 52.

<sup>30</sup> Eugene Volokh and Donald M. Falk, ‘Google First Amendment Protection for Search Engine Search Results’ (2012) 8 *Journal of Law Economic and Policy* 883, 899.

<sup>31</sup> Ricardo Bilton, ‘Facebook’s trending stories leak shows that it isn’t too different from average news orgs’ (NiemanLab, 9 May 2016) <<http://www.niemanlab.org/2016/05/facebooks-trending-stories-leak-shows-that-it-isnt-too-different-from-average-news-orgs-flawed-human-a-little-biased/>>.

<sup>32</sup> Eric Goldman, ‘Revisiting Search Engine Bias’, (2011) 38 *William Mitchell Law Review* 96, 106; Bruce Brown and Alan Davidson, ‘Is Google Like Gas or Like Steel?’ (The New York Times, 4 January 2013) <[http://www.nytimes.com/2013/01/05/opinion/is-google-like-gas-or-like-steel.html?\\_r=0](http://www.nytimes.com/2013/01/05/opinion/is-google-like-gas-or-like-steel.html?_r=0)>.

they do not wish to. Interferences from a government to impose an obligation like telecommunication sector would be undesirable.<sup>33</sup>

The advocates of the ‘editorial perspective’ all agree that non-discriminatory principles (i.e. net neutrality) should not be applied to selection intermediaries. However, there are many opinions regarding the degree of interference by the government. Some scholars suggest that selection intermediaries should proceed without regulatory intervention, while others contend that selection intermediaries can and should be regulated.

Goldman has been the most outspoken proponent of the view that selection intermediaries should be free from regulatory distortion. He suggests that free market and technological revolution are all that are necessary to limit an excess of bias.<sup>34</sup> Nevertheless, there is a flaw in this perspective. As discussed in Chapter 3, market power alone is not effective to protect and encourage media plurality and regulation is needed to achieve this goal. In addition, this opinion ignores the role of selection intermediaries in navigating the online information environment. The function of these intermediaries is not limited to selecting and excluding certain information like newspapers; it also extends to providing access to information. It is true that bias is unavoidable and necessary however it is not always desirable. Selection intermediaries’ bias will only be preferred if they provide what people seek with diverse perspectives, not any results which selection intermediaries prefer. Overlooking this fact and allowing selection intermediaries to exploit their freedom to restrict online accessibility would seriously harm exposure diversity.

Some scholars accept that selection intermediaries can be regulated but leave open question as to what extent and how they should be regulated.<sup>35</sup> As discussed in Chapter 2, although selection intermediaries can claim the protection of free speech, they can be restricted in order to protect democracy and free speech of people. It should be noted that

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<sup>33</sup> See Ryan Heath, ‘The Wrong Suspect’ (DISCO, 16 March 2015) <<http://www.project-disco.org/competition/031615-wrong-suspect-debate-platform-neutrality-finds-little-evidence-consumer-harm/>>; Andrea Renda, ‘Antitrust Regulation and the Neutrality Trap’ in Aitor Ortiz (ed.), *Internet Competition and Regulation of Online Platforms* (CPI 2016) 59.

<sup>34</sup> Eric Goldman, ‘Search Engine Bias and the Demise of Search Engine Utopianism’ (2006) 8 *Yale Journal of Law and Technology* 111.

<sup>35</sup> See e.g. Marvin Ammori, ‘Failed Analogies’ in Aitor Ortiz (ed.), *Internet Competition and Regulation of Online Platforms* (CPI 2016) 52.; Andrea Renda, ‘Antitrust Regulation and the Neutrality Trap’ in Aitor Ortiz (ed.), *Internet Competition and Regulation of Online Platforms* (CPI 2016) 59.

the exercise of editorial control by traditional media also has legal responsibility. For instance, broadcasters cannot arbitrarily publish information they want or discard some content. They are under the principles such as impartiality, plurality and accuracy. If the operation of selection intermediaries is regarded as having editorial control like traditional media; selection intermediaries should have to perform tasks impartiality such as assisting an audience to connect to content providers instead of blocking users' access to information. Imposing some degree of responsibility on selection intermediaries will encourage accessibility to variety of content providers. The application of impartiality on selection intermediaries will be further discussed in section 4.

To summarise, both the 'conduit communication' perspective and the 'editor perspective' have some aspects that benefit the encouragement of exposure diversity. The 'conduit communication' perspective prefers that the concept of net neutrality should be applied to selection intermediaries in some degree. The 'editor perspective' allows intermediaries to have bias as it is in the nature of their operation; however, selection intermediaries can be regulated in some extent for the benefits of society. As media entities, selection intermediaries should have an impartiality obligation. To encourage exposure diversity, net neutrality and impartiality should therefore be applied to selection intermediaries. The principles of net neutrality and impartiality will be discussed in the following section.

### 3. Net neutrality and exposure diversity

This section examines the concept of net neutrality. It also analyses the application of this concept on selection intermediaries in order to support exposure diversity. It will illustrate that net neutrality ensures diverse content to not be excluded or not to lose its opportunity to be exposed to people. Its limitation, however, is that it does not directly increase the amount of diverse viewpoints.

#### a. The concept of net neutrality

Net neutrality is a principle of non-discrimination for network operators that allow all types of content to be transmitted on the network with the same service quality. It ensures that Internet content providers are granted access to the Internet without favouring or prioritising some content at the expense of other content by network operators. This term was defined by Tim Wu in 2003:

‘Network neutrality is best defined as a network design principle. The idea is that a maximally useful public information network aspires to treat all content, sites, and platforms equally. This allows the network to carry every form of information and support every kind of application.’<sup>36</sup>

Also, according to Regulation (EU) 2015/2120, the definition of net neutrality should be understood as:

‘Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used’<sup>37</sup>

Net neutrality is based on the foundational architecture of the Internet: the end to end principle. The end to end principle recommends that the network remains a ‘dumb pipe’ to simply route data traffic from one end-point to another.<sup>38</sup> A network which follows this principle does not discriminate any data passing through it, irrespective of what kind of data is transmitted. Each data flow must be treated equally and transported on a first-come-first-served basis.<sup>39</sup> In other words, the action to tamper with data flow (either by blocking them altogether, prioritising some traffic over others, or degrading the quality of transmission) would be against the net neutrality principle.

Although net neutrality is a fundamental principle of the Internet, its scope and details are not universally or definitely accepted. The topic of net neutrality covers a wide range of viewpoints. Also, there are debates among stakeholders and by no means in agreement with each other on many issues.<sup>40</sup> For instance, in the US, the FCC in 2011 established three basic open Internet rules which are: transparency, no blocking and no

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<sup>36</sup> Tim Wu, ‘Network neutrality FAQ’ <[http://timwu.org/network\\_neutrality.htm](http://timwu.org/network_neutrality.htm)>; See also Tim Wu, ‘Network Neutrality, Broadband Discrimination’ (2003) 2(1) *Journal on Telecommunications and High Technology Law* 141, 145.

<sup>37</sup> Articles 3 (3) of the Regulation (EU) 2015/2120 laying down measures concerning open internet access.

<sup>38</sup> See Jerome Saltzer et al., ‘End-to-end arguments in system design’ (1984) 2(4) *ACM Transactions on Computer Systems* 277.

<sup>39</sup> Bill Herman and Minjeong Kim, ‘The Internet defends itself: the network neutrality debate on the web’ (2014) 30(1) *The Information Society* 31, 31.

<sup>40</sup> See Andrew Murray, *Information Technology Law* (3rd ed, OUP 2016) 26-36; Darren Read, ‘Net neutrality and the EU electronic communications regulatory framework’ (2012) 20(1) *Int.J.L.Info.Tec* 48; Nico van Eijk, ‘Net neutrality and audiovisual services’ in Monroe E. Price et al. (eds.), *Routledge Handbook of Media Law* (Routledge 2013) 523.

unreasonable discrimination.<sup>41</sup> However, in 2015, the FCC set out new four rules to protect net neutrality which are: no blocking, no throttling, no paid prioritisation, and no unreasonable interference or unreasonable disadvantage standard for Internet conduct.<sup>42</sup> In Europe, the view taken by the CoE in 2010 suggests that ‘...exceptions to [net neutrality] should be considered with great circumspection and need to be justified by overriding public interests’.<sup>43</sup> However, in the same year, Ofcom defined ‘the purest version of net neutrality’ as ‘there should be no prioritisation of any type of traffic by network operators’.<sup>44</sup>

Moreover, increasing commercialization and technological developments have stirred up a heated debate among both the public and policymakers. In particular, there are claims that Internet traffic growth is unmanageable by routine network practices; therefore, traffic management and some prioritisation are required in order to provide adequate performance and reliability.<sup>45</sup> For example, streaming video and voice calls require the transmission priority and minimal delays than the lower bandwidth services such as email. Accordingly, in 2015, the regulation concerning open Internet access allows reasonable traffic management measures and providers of electronic communications to differentiate their offered services which are optimised for a specific content.<sup>46</sup> In contrast, the Telecom Regulatory Authority of India ruled that Facebook's Free Basics (which provides people access to some Internet services on their mobile phones where Internet access is less affordable) are against net neutrality.<sup>47</sup>

As previously delineated, the scope and details of net neutrality are complicated and controversial. For the purpose of this section, the notion of net neutrality as defined by Marsden will be used as the basis for discussion. He divides net neutrality into two

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<sup>41</sup> FCC, ‘Open Internet Report and Order’ (FCC 10-201, 21 December 2010) 17906.

<sup>42</sup> FCC, ‘Report and Order on Remand, Declaratory Ruling, and Order’ (FCC 15-24, 26 February 2015), 284-285.

<sup>43</sup> CoE, ‘Declaration of the Committee of Ministers on network neutrality’ (CoE, 29 September 2010) para 6.

<sup>44</sup> Ofcom, ‘Traffic Management and ‘Net neutrality’’ (Ofcom, 24 June 2010) 5.

<sup>45</sup> See Laura DeNardis, *The global war for Internet governance* (YUP 2014) 141-152; Robin Mansell, ‘Technological innovation, paradox and ICTs’ in Monroe E. Price et al. (eds.), *Routledge Handbook of Media Law* (Routledge 2013) 501, 505-509; Andrew Odlyzko, ‘Network neutrality, search neutrality, and the never-ending conflict between efficiency and fairness in markets’ (2009) 8(1) *Review of Network Economics* 40.

<sup>46</sup> Articles 3 of the Regulation (EU) 2015/2120

<sup>47</sup> Tech Desk, ‘TRAI supports Net Neutrality, effectively bans Free Basics’ (The Indian Express, 9 February 2016) <<http://indianexpress.com/article/technology/tech-news-technology/facebook-free-basics-ban-net-neutrality-all-you-need-to-know/>>

broad elements: positive net neutrality and negative net neutrality.<sup>48</sup> The former refers to offering of faster access to consumers and guaranteed service, while the latter regards blocking, degrading or throttling of content beyond normal traffic management.

Positive net neutrality relates to practices of network operators being allowed to charge higher prices for higher quality of service (QOS). The provision of an enhanced QOS should be offered on fair, reasonable and non-discriminatory terms to all customers. The positive net neutrality is regulated by many articles in the EU Directives and Regulation. For instance, reasonable traffic management must be non-discriminatory, proportionate, and not based on commercial considerations but on objectively different technical requirements.<sup>49</sup> Also, the network operator has to apply equivalent conditions and provide services to other undertakings under the same conditions and quality as it provides for its own services, its subsidiaries or partners.<sup>50</sup> The national regulatory authorities can impose obligations on the undertakings identified as having significant market power to not charge excessive prices.<sup>51</sup>

Negative net neutrality concerns a user's access to Internet content. It describes that Internet users should be provided with a minimum level of service which offers open Internet access. Network operators also cannot restrict the data flowing through their networks in a way that specific application is favoured. For example, the national regulatory authorities have to ensure that there is no distortion or restriction of competition in the transmission of content.<sup>52</sup> Also, they have a duty to promote the ability of users to access, use and distribute any lawful content or services of their choice.<sup>53</sup> In order to prevent degradation of service and slowing of traffic over networks, the national regulatory authorities can set minimum QOS requirements.<sup>54</sup>

#### b. The application of net neutrality to selection intermediaries

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<sup>48</sup> Christopher Marsden, *Net neutrality* (Bloomsbury Academic 2010) 29.

<sup>49</sup> Articles 3 of the Regulation (EU) 2015/2120

<sup>50</sup> Article 10 of the Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive).

<sup>51</sup> Article 17 of the Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive).

<sup>52</sup> Article 8(2)(b) of the Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Framework Directive).

<sup>53</sup> Article 8(4)(g) of the Framework Directive.

<sup>54</sup> Article 22(3) of the Universal Service Directive.

Selection intermediaries are gatekeepers and share common features with network operators. In order to guarantee exposure diversity, it is appropriate to consider the extension of net neutrality to selection intermediaries. It should be noted that the degree of neutrality required from selection intermediaries cannot be equal to that required from network operators: some necessary adjustments are needed. Based on the notion of net neutrality derived from Marsden as previously discussed, the following principles will be analysed: (i) no-blocking, (ii) reasonable management, and (iii) free access and no paid prioritisation. According to Marsden, ‘no-blocking’ and ‘reasonable management’ can be considered as negative net neutrality; while the last principle, ‘free access and no paid prioritisation’, is considered as positive net neutrality. By applying these three principles, selection intermediaries will provide accessibility to every form of information without unreasonable discrimination, restriction or interference.

i. No-blocking

The most obvious exposure diversity problem regarding selection intermediaries’ bias is censorship or blocking of access to particular content. This is because access to information is essential to break one’s personal filter bubble and to participate in other public spheres. The CoE underlines that filtering and de-indexation by search engines adversely risk reducing diversity of information.<sup>55</sup> Also, the Steering Committee on Media and Information Society pointed out that search engines ‘should not conduct any ex-ante filtering or blocking activity unless mandated by a court order or by a competent authority’.<sup>56</sup> This is similar to the threat of the ability of network operators to block certain speakers, e.g. competing services. This restriction of content access offers a serious challenge to net neutrality.

In the context of selection intermediaries, the prohibition of blocking means that users should be able to access and distribute any lawful content in selection intermediaries’ platforms. Regarding the promotion of exposure diversity, the principle of no-blocking can be considered from two sides of the same coin: firstly, content providers are entitled to be integrated into the database of selection intermediaries; and secondly, end-users are entitled to access any links to a variety of content.

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<sup>55</sup> Recommendation CM/Rec(2012)3 on the protection of human rights with regard to search engines.

<sup>56</sup> CoE, ‘Explanatory Memorandum CM(2014)31 on CM/Rec(2014)6 on a guide to human rights for Internet users’ (CoE, 16 April 2014) para 51.

Regarding the first aspect of no-blocking, the links to the content must first be included into the database of selection intermediaries in order to be found online. For search engines, content providers must be crawled, indexed and included in search engine indices. For social media, it means that people as content providers can create an account and operate online activities (e.g. post, tweet, retweet, share or be shared) on the platform. Also, content providers should freely link content from elsewhere or have their own content linked on selection intermediaries' platforms. Therefore, blocking is not only about censorship of certain site but includes obstruction of transmission of any social online activities. The owner of selection intermediaries should not claim the (business or property) right to deny these activities.

As to the end-users' aspect of no-blocking, audience may not be able to access to links even though it is stored in the databases of selection intermediaries. Thus, they should be entitled to access to any content available on selection intermediaries regardless of technical features or devices they used. This also includes the protection from temporary inaccessibility. It should be noted that due to the hierarchical structure of selection intermediaries, it would be impossible to force selection intermediaries to display every relevant result on the top result recommendations. Some content will have to be at the top of the list and others at the bottom. It is, therefore, essential to understanding that the application of net neutrality to selection intermediaries can never grant a right for content providers to claim their place on the first page of results.

Although the Internet should be freely open, it is undeniable that some content have to be banished from online platforms. Selection intermediaries can prevent any abusive conducts on the system such as spamdexing, malware, search engine optimisation, or harmful sites. Besides, censorship of illegal content such as pornography, drug, copyright-infringing materials, and child abuse images is allowed.

However, censorship or blocking of content must be based on legal obligation and specific published rules. It should not be arbitrary or subjective on a particular complaint. For example, there are complaints that Facebook censors pages reflecting a conservative point of view: Dunetz claims that Facebook's operation does not post specific rules and is entirely subjective to particular employee who makes the

ruling.<sup>57</sup> This way of blocking is not acceptable. Moreover, a legitimate blocking must contain a clear reason with a reference to specific regulation. In Facebook's case, it provides ambiguous reasons for content removals such as: 'we removed this from Facebook because it violates our Community Standards'<sup>58</sup>, 'suspicious activity'<sup>59</sup> and 'unsafe'. In comparison, Google search engine has posted a notice of a removed website with statements such as: 'in response to a complaint we received under the Digital Millennium Copyright Act, we have removed one result(s) from this page. If you wish, you may read the D.M.C.A. complaint for these removed results'.<sup>60</sup> It is obvious that this practice of Google is more desirable to prevent unreasonable discrimination.

ii. Reasonable management

Apart from concerns over blocking, exposure diversity may also be harmed if content is degraded an opportunity to appear on a result recommendation or deprived of an opportunity to be on the top of a result recommendation. As the CoE noted with concern, search bias may adversely affect end-users by reducing the diversity of information source.<sup>61</sup> This is similar to access tiering which refers to a practice of network operators differentiating levels of service quality so that certain packets receive preferential delivery over others. Therefore, the European Parliament comments that regulatory measures should be taken in order to safeguard the diversity of opinions if a platform provider exploits their position to favour or discriminate against particular content.<sup>62</sup>

According to the principle of net neutrality, non-discrimination means the absence of an unreasonable discrimination in transmitting network traffic. In other words,

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<sup>57</sup> For further discuss see Jeff Dunetz, 'Media Ignoring a MAJOR Part of the Facebook Scandal' (MRCTV, 17 May 2016) <<http://www.mrctv.org/blog/mainstream-media-ignoring-major-part-facebook-scandal>>; Conservative Firing Line <<http://conservativefiringline.com/?s=facebook>>.

<sup>58</sup> Joe Newby, 'Facebook claims Marine Corps emblem violates community standards' (Liberty Unyielding, 29 July 2015) <<http://libertyunyielding.com/2015/07/29/facebook-claims-marine-corps-emblem-violates-community-standards/>>.

<sup>59</sup> Foxnews, '12-Year-Old Conservative Superstar Defends Giuliani' (Foxnews, 1 May 2015) <<http://insider.foxnews.com/2015/03/01/watch-12-year-old-conservative-superstar-defends-giuliani-blasts-obama>>.

<sup>60</sup> See David Gallagher, 'New Economy' (The New York Times, 22 April 2002) <<http://www.nytimes.com/2002/04/22/business/new-economy-copyright-dispute-with-church-scientology-forcing-google-some.html>>.

<sup>61</sup> Recommendation CM/Rec(2012)3 on the protection of human rights with regard to search engines.

<sup>62</sup> Committee on Culture and Education, 'Resolution: European Parliament, on Preparing for a Fully Converged Audiovisual World' (2013/2180(INI), 28 January 2014).

reasonable network management is permitted and should not constitute discrimination. By applying the principle of net neutrality to selection intermediaries, the key question is what can be considered as reasonable management.

Regarding reasonable traffic management, Article 3 of the EU Regulation 2015/2120 states that:

‘Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used.

The first subparagraph shall not prevent providers of internet access services from implementing reasonable traffic management measures. In order to be deemed to be reasonable, such measures shall be transparent, non-discriminatory and proportionate, and shall not be based on commercial considerations but on objectively different technical quality of service requirements of specific categories of traffic. Such measures shall not monitor the specific content and shall not be maintained for longer than necessary.’

Reasonable management means that internet access providers cannot select which content and services are available, the so-called equal treatment. This does not mean that all users will experience exactly the same performance. The traffic is considered to be treated equally as long as any treatment of traffic is done independently of applications and users. For instance, there can be no prioritisation of traffic in the internet access service; equal treatment allows reasonable day-to-day traffic management according to objectively justified technical requirements; and must be independent of any commercial considerations.<sup>63</sup> Under the Regulation, blocking, throttling and discrimination of internet traffic by internet service providers is not allowed in the EU. Practices which do not comply with these rules are not regarded as reasonable traffic management.<sup>64</sup>

A related doctrine is ‘due prominence’ in Ofcom’s code of practice on EPG. The code imposes that EPG providers ensure that their agreement with broadcasters is made on fair, reasonable and non-discriminatory terms. EPG providers must ensure that viewers

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<sup>63</sup> Recital 9 of the EU Regulation 2015/2120.

<sup>64</sup> Recital 11 of the EU Regulation 2015/2120.

are able to access all programmes and channels included in the EPG service on the same basis. They must also comply with an objectively justifiable method of allocating listings. They are prohibited from giving undue prominence in any listing or display to a channel to which they are connected, except where required in the light of the appropriate prominence provisions. Besides, they must refrain from imposing any condition in an agreement with a channel provider specifying exclusivity to one EPG for any service or feature. This can also be seen as a reasonable management.

In regard to exposure diversity, discrimination should be considered as reasonable when it is beneficial for users to consume diverse content. Unreasonable discrimination can be an operation based on bias towards a political, financial or social benefit serving the interests of owners of selection intermediaries. For example, enlisting certain types of content systematically for normal operation of the service is legitimate. Also, favouring marginal viewpoints for the purpose of exposing diverse opinions to the audience can be justified. The guideline for the application of reasonable management is exemplified by the CoE's recommendation:

‘As an exemption to the network neutrality principle, preferential treatment of traffic ... should be allowed only if sufficient safeguards for users’ ability to access, use and impart information are in place. In particular, preferential treatment of traffic should not diminish or affect the affordability, performance or quality of users’ access to the Internet. Internet users should have a real opportunity to choose an Internet connection without preferential treatment of traffic. They must also be informed about the impact that such treatment might have on their ability to access, use and impart information, diverse and pluralistic content that is publicly available...’<sup>65</sup>

In contrast, providing result recommendations by favouring its affiliated content to appear on the top results or downgrading competitive content is an unreasonable discrimination. Manipulations of result recommendations to attract more clients for advertising or to obtain financial advantages from content providers are against the principle of net neutrality. Also, detriment of opposite or conflicting viewpoints by making them less appear to people’s attention is unacceptable. Notably, it does not mean that selection intermediaries cannot provide their favoured content in recommendation

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<sup>65</sup> Recommendation CM/Rec (2016)1 on protecting and promoting the right to freedom of expression and the right to private life with regard to network neutrality

results. It can do so as long as it does not harm the degree of diverse content exposed to people. Besides, this reasonable management principle can be effective by ensuring transparency of selection intermediaries' operations i.e. by providing users with information about possible manipulations of result recommendations in order to ensure people that any manipulation is reasonable. As the CoE states that '...provide users with clear, complete and publicly available information with regard to any traffic management practices which might affect users' access to and distribution of content...'.<sup>66</sup>

iii. Free access and no paid prioritisation

The final application of the principle of net neutrality on selection intermediaries is the operation of result recommendation with no charge. It means that, apart from advertising, content providers should not be charged for any process of providing normal result recommendation from selection intermediaries. Also, a charge to increase a chance of certain content to be placed on the top of result recommendation or to be exposed to people is unjustified. Price charging is prohibited if it is offered differently for specific content; and it is prohibited even in the case that selection intermediaries equally apply the charge to every content providers on the same rate.

For example, Google's search engines cannot charge any fee from a certain site for getting a higher chance of being visible (regarding search query) on the first page of organic search results.<sup>67</sup> The editors of a (popular) page on Facebook should not be charged for using the space on Facebook platform, for appearing in other news feeds, or for being a suggested page in other function. Youtube should be restricted from charging specific types of content providers (e.g. popular user-generated content) for posting their clips or for their clips to be recommended.

Around the end of 2017, Facebook made a major change in its News Feed. It now prioritises posts shared and discussed among friends and family over posts from publishers and brands.<sup>68</sup> However, if publishers pay some money to Facebook, their posts

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<sup>66</sup> Ibid.

<sup>67</sup> The definition of organic search results in comparison with paid search results is discussed in Chapter 1.

<sup>68</sup> Alex Hern, 'Facebook moving non-promoted posts out of news feed in trial' (The Guardian, 23 October 2017) <<https://www.theguardian.com/technology/2017/oct/23/facebook-non-promoted-posts-news-feed-new-trial-publishers>>.

will still be prioritised to appear on the News Feed as normal. Instead of separating publishers' posts from advertisements, Facebook allows content providers to pay some revenue for their content to be seen by the public. As a result of this conduct, paid media has the ability to reach greater audiences. This overhaul diminishes the chance of publishers' content reaching people unless they spend more money to make sure people see their content. Consequently, while big media can gain significant traffic, smaller publishers are being undermined. Facebook announced that it made change to its News Feed to 'spark conversations and meaningful interactions between people'<sup>69</sup> and want an easier way people to see posts from their friends and family. However, it is criticised that Facebook tried to increase its advertising revenue since the change does not affect paid promotions as they still appear on the news feed.<sup>70</sup> The policy of a platform to prioritise users' posts over publishers' or brands' would not create a problem; however, increasing a chance of paid posts is certainly a type of paid prioritization. Thus, this conduct of Facebook should be hindered.

Allowing charging differently for different services or charge a higher price for the higher QOS will cause harmful effects on exposure diversity. As the European Parliament states: in order to safeguard the diversity of opinions, 'searching for and finding audiovisual content should not be determined by economic interests'.<sup>71</sup> Price charging provides an unnecessary preference discrimination than already exists for wealthy speakers. It makes it easier for the big content providers to be exposed to the audience in comparison with the others. The result will be adversely similar to the use of popularity algorithms: where the winner takes it all and the others disappear from the attention of people. Giving a privilege to appear on the top search results for content providers who pay means a degradation of opportunity of those who do not pay for preferential treatment. Consequently, it will undermine the ability of people to participate as speakers which will greatly decrease the diversity of sources presented to people.

Some may claim that selection intermediaries are justified in seeking fees because of the need for investment in technological innovation of platforms, then, it may be

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<sup>69</sup> Facebook, 'Bringing People Closer Together' (Newsroom, 11 January 2018) <<https://newsroom.fb.com/news/2018/01/news-feed-fyi-bringing-people-closer-together/>>.

<sup>70</sup> Alex Hern, 'Facebook moving non-promoted posts out of news feed in trial' (The Guardian, 23 October 2017) <<https://www.theguardian.com/technology/2017/oct/23/facebook-non-promoted-posts-news-feed-new-trial-publishers>>.

<sup>71</sup> Committee on Culture and Education, 'Resolution: European Parliament, on Preparing for a Fully Converged Audiovisual World' (2013/2180(INI), 28 January 2014).

necessary to reasonably discriminate among content providers and extract payment from them. However, fees for improved QOS should be collected from a product advertisement or sponsor, not from a content provider. Advertising on selection intermediaries should be permitted if the product advertisement is made separately from content providers and appears in a clear and distinct manner for people to easily identify that such content is sponsored, e.g. advertising labels on Google's paid search results. Prohibiting paid prioritisation is necessary to avoid potential bias in favour of rich speakers.

In conclusion, exposure diversity can be guaranteed by applying the principle of net neutrality to selection intermediaries. Regarding the different nature of selection intermediaries and network operators, some adjustments of the principle are necessary. Selection intermediaries should have an obligation to operate neutrally: i.e. (i) not to block the transmission of content and social online activities, (ii) operate reasonable management to prevent commercial or other bias, and (iii) not to charge for the provision of content in normal result recommendations. It should be noted that net neutrality is not a panacea to solve every exposure diversity issues. Net neutrality has its limitation to only ensure that diverse content will not be excluded or deprived of the opportunity to be exposed to people. The principle of net neutrality does not directly impose an obligation on selection intermediaries to present diverse viewpoints, which is why it is necessary to consider the principle of impartiality in the following part.

#### 4. Due impartiality and exposure diversity

Apart from net neutrality, impartiality can be considered as another principle to encourage exposure diversity. For people to consume diverse content, a variety of choices should be easily noticed in result recommendations. As previously criticised, the principle of net neutrality does not contribute to the promotion of diverse choices presented to people while the principle of impartiality can promote accessibility to sufficient alternative information by presenting diverse viewpoints in result recommendation. This section, therefore, analyses the application of impartiality to selection intermediaries.

##### a. The concept of due impartiality

The principle of impartiality lies at the heart of media and journalism practice<sup>72</sup>; however, its concept is complex, difficult to define and difficult to put into practice. The Ofcom Broadcasting Code provides the meaning of due impartiality that:

‘ “Due” is an important qualification to the concept of impartiality. Impartiality itself means not favouring one side over another. “Due” means adequate or appropriate to the subject and nature of the programme. So “due impartiality” does not mean an equal division of time has to be given to every view, or that every argument and every facet of every argument has to be represented. The approach to due impartiality may vary according to the nature of the subject...’<sup>73</sup>

Impartiality, therefore, is about providing a broad perspective and ensuring the existence of a range of views to be appropriately heard. It requires a journalist to actively seek out the evidence, to weigh up the material fact with a fair and open-mind, and to appropriately present the overall significance without preconceptions or bias.<sup>74</sup> As Marsh states ‘impartiality...is more of a process than it is an outcome’ and ‘impartiality was achieved over time’.<sup>75</sup>

Impartiality contains elements including: objectivity, balance, fairness, accuracy, and diversity. However, impartiality is not precisely the same as any of these elements. Impartiality is a term more often used in the UK whereas objectivity is a more common term in the US. Objectivity usually means an effort to exclude subjective judgement<sup>76</sup> and, thus, reporting as many as possible facts without interpreting the relationship of those facts or weighing the truth of found evidence. Therefore, objectivity implies passive journalists while impartiality involves an attempt to regard different ideas and opinions with evidence-based judgments.

‘Fairness’, an element of impartiality, implies that all relevant arguments get a fair chance; while ‘balance’, another element of impartiality, implies allocation of equal space

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<sup>72</sup> It should be noted that impartiality is not a legal requirement for newspaper. The law only obliges broadcasting to be impartial (see Section 320 of CA 2003).

<sup>73</sup> Ofcom, ‘The Ofcom Broadcasting Code’ (Ofcom, April 2017) Section 5.

<sup>74</sup> Section 4: Impartiality, paras 4.2.2–4.2.4 of the BBC Editorial guidelines <<http://www.bbc.co.uk/editorialguidelines/guidelines/impartiality/principles>>

<sup>75</sup> Kevin Marsh, ‘Issue of impartiality in news and current affairs’ in Leon Barkho (ed.), *From Theory to Practice* (Intellect 2013) 211, 219, 221.

<sup>76</sup> David Cox, ‘Impartiality imperilled’ (Prospect, 30 September 2007) <<http://www.prospectmagazine.co.uk/magazine/impartialityimperilled>>.

to opposing views. However, impartiality is not just a simple matter of fairness and balance between every side of an argument. Impartiality is not required in any simple mathematical sense of providing equal time to all viewpoints. A journalist should not unrealistically balance between truth and untruth, or right and wrong. Giving airtime for unproven or scientifically unsupported claims to be exposed equally or more than those of the experts or academics is a misrepresentation of impartiality. Such a practice would also favour minority viewpoints with high emotion.<sup>77</sup>

Media plurality co-exists with impartiality. This is because impartiality is about providing a breadth of views in order to reflect diversity and not restricting coverage to a narrow view of the world. As stated in the BBC Trust's *From Seesaw to Wagon Wheel* report that impartiality is achieved by 'bringing extra perspectives to bear, rather than limiting horizons or censoring opinion'.<sup>78</sup>

Precisely, impartiality should be regarded as Marsh's clearly defines: '...an aspiration rather than a measurable goal. That it is a collection of characteristics rather than a formal definition. And that it will change over time'.<sup>79</sup> Consequently, regulators and practitioners have been developing various forms of the journalistic norm and professional editorial discipline in order to understand what impartiality could and should look like in practice. For example, impartiality never suggest reporters to have no opinions, though their main role is to present facts and arguments. They can express their personal view, but it should be based upon well-ascertained facts, and should not be coloured by their own political, religious, or social beliefs.<sup>80</sup> Views and facts must be made clearly distinct and not be misrepresented. Besides, personal opinions must be presented with due weight over appropriate timeframes and alternative viewpoints must also be adequately represented.<sup>81</sup>

In practice, many news organisations today avoid using negative language to label others from their own institutional viewpoint: such as 'terrorist', 'Islamist, and 'martyr'.<sup>82</sup> Instead, neutral terminology to describe the action itself is used: such as

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<sup>77</sup> John Bridcut, 'From seesaw to wagon wheel' (BBC Trust, 18 June 2007).

<sup>78</sup> Ibid.

<sup>79</sup> Kevin Marsh, 'Issue of impartiality in news and current affairs' in Leon Barkho (ed.), *From Theory to Practice* (Intellect 2013) 211, 214.

<sup>80</sup> E.P. Davies, *The reporter's handbook and vade mecum* (Rarebooksclub.com 2013).

<sup>81</sup> Ofcom, 'The Ofcom Broadcasting Code' (Ofcom, April 2017) Section 5, para 5.7-5.10.

<sup>82</sup> Leon Barkho, *From Theory to Practice* (Intellect 2013) 6-10.

‘suicide bombers’ and ‘hostage takers’. Recently, the increasing use of research data and statistics raises the problem for journalists of how their analyses and conclusions deriving from data are impartially presented. There are many suggestions such as: providing a link to the original source or reporting in ‘conversational tone’ or ‘plain-spoken way’.<sup>83</sup> Besides, Reuters has developed its own journalist’s standards of impartiality to apply in the social media world.<sup>84</sup> To summarise, all these practices illustrate that a single definition of impartiality cannot be derived; however, impartiality is a matter of process or perspective to ensure the existence of a range of views without favouring one side over another.

There are debates challenging the necessity of impartiality. In the UK, the principle of due impartiality has been under the debate whether to relax or abandon the impartiality framework. This is similar to the US as it is considering whether to abandon its broadcasting fairness doctrine. Notably, as the disciplines of objectivity break down, the consequences are not an increase but a diminution of diversity:

‘When in 1987... Federal Communications Commission abolished the ‘Fairness Doctrine’, this certainly contributed to the process whereby talk radio became increasingly dominated by rabidly right-wing... paving the way for the blatantly biased Fox News... illiberal opinion is quite remarkably hegemonic, and majoritarian... liberal opinion finds itself not only woefully underrepresented...but routinely travestied, traduced and trashed.’<sup>85</sup>

Among many debates about impartiality<sup>86</sup>, this thesis will illustrate two arguments which demonstrate that the principle of impartiality is now under pressure and even attacked in the digital age. The first argument is that transparency is a new form of impartiality by giving the audience a greater chance to check how stories are produced.<sup>87</sup>

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<sup>83</sup> See Kellie Riordan, ‘Accuracy, Independence, and Impartiality’ (RISJ, 2014) 34-35.

<sup>84</sup> Eric Auchard, ‘What are the new rules for reporting, sourcing, verifying, editing and publishing a social media world?’ in Leon Barkho (ed.), *From Theory to Practice* (Intellect 2013) 223.

<sup>85</sup> Julian Petley, ‘Impartiality in Television News’ in Stuart Allan (ed.), *The Routledge Companion to News and Journalism* (Routledge 2010) 602, 609.

<sup>86</sup> For further discuss see e.g. Richard Sambrook, ‘Delivering Trust’ (RISJ, July 2012); Steven Barnett, ‘Broadcast journalism and impartiality in the digital age’ in Gregory Ferrell Lowe and Jeanette Steemers (eds.), *Regaining the initiative for public service media* (Nordicom 2013) 201.

<sup>87</sup> David Weinberger, ‘Transparency’ (KMworld, 28 August 2009) <<http://www.kmworld.com/Articles/Column/David-Weinberger/Transparency-the-new-objectivity-55785.aspx>>

As a result, it creates a reliable, trusted and credible news source in the digital age.<sup>88</sup> Consequently, transparency most certainly lifts the standard of impartiality. Although transparency is crucial, it ‘cannot, by itself, solve the problem of editorial integrity... [and] transparent journalists can be biased, inaccurate, or irresponsible’.<sup>89</sup> Besides, shifting from impartiality to transparency is putting the burden of responsibility for seeking out alternatives away from the journalist to the audience. This is because transparency relies on the audience to actively engage rather than passively consume. Therefore, transparency does not reduce the importance of impartiality.

The second argument is that impartiality was crucial in the past because of the scarcity and monopoly of media voices; however, it is not necessary for the digital age since the Internet offers even greater choice and diversity than before. The audience now does not rely on a single voice for news. This breadth of view that digital sources can provide leads to greater impartiality since there is a wide array of different views from all points of a debate.<sup>90</sup> However, this claim can face a counterargument of the filter bubble phenomenon. The variety of views on the Internet is meaningless if people only consume a particular partisan media to support their views. Therefore, impartiality is still important because it is a means for people to consume diverse content in a single media source. In other words, impartiality can encourage exposure diversity in each media channel. As Sunderland states that ‘what has not changed is the desire of people to find reliable information without spin, in a concise and accessible form’.<sup>91</sup>

To conclude, the principle of impartiality is even more important for the digital age as it a measure to break out of a filter bubble. By applying impartiality to selection intermediaries, people can be exposed to more diverse viewpoints.

b. The application of due impartiality to selection intermediaries

The impartiality principle could be applied to selection intermediaries to encourage exposure diversity. It would promote the presentation of diverse viewpoints in

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<sup>88</sup> Stephen Ward, ‘Juan Williams, Lisa Simeon and Public Media’s quest for integrity’ (Mediashift, 28 November 2011) <<http://mediashift.org/2011/11/juan-williams-lisa-simeone-and-public-medias-quest-for-integrity332/>>

<sup>89</sup> Stephen Ward, *The Invention of Journalism Ethics* (McGill-Queen’s University Press 2006) 324.

<sup>90</sup> John Pavlik, *Journalism and new media* (CoUP 2001) 93.

<sup>91</sup> Alan Sunderland, head of editorial policy, Australian Broadcasting Corporation in Kellie Riordan, ‘Accuracy, Independence, and Impartiality’ (RISJ, 2014) 34.

result recommendations. There are two ways to support accessibility to alternative information: by providing diversity to be obviously noticed in result recommendations, and by preventing one side of views from overwhelming recommendation results. Since impartiality has various methods, this subsection will only provide three regulatory regimes as examples of the three specific cases which are: (i) reporting election and referendums, (ii) providing news and controversial issues, and (iii) accuracy and preventing fake news.

i. Reporting election and referendums

One of the most crucial aspects of an impartiality requirement is the coverage of election and referendums.<sup>92</sup> The Broadcasting Code has detailed various rules on media entities to provide impartial output in election and referendum periods.<sup>93</sup> For example, during the election or referendum period, due weight must be given to the coverage of larger parties or designated organisations. Also, broadcasters must consider giving appropriate coverage to other parties, independent candidates and other permitted participants with significant views and perspectives.<sup>94</sup> All candidates (larger parties and independent candidates) must be offered the opportunity to take part in a report or discussion about their particular constituency or electoral area.<sup>95</sup>

This is because media is a powerful means to influence the vote decision of people. Today, politicians exploit selection intermediaries the same way as traditional media to communicate with citizens.<sup>96</sup> For instance, Obama used social media to advertise his campaign information during the US presidential election in 2008 and 2012. Also, in 2016 US presidential election, Trump used Twitter to promote his policy to his supporters. Therefore, it is crucial for selection intermediaries to be impartial and to provide (with due weight and appropriate opportunity) diverse views of all participants to be exposed to people.

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<sup>92</sup> See e.g. *Marshall v BBC* [1979] 2 All ER 80; *Wilson v IBA* [1979] SLT 279; Ofcom Broadcast Bulletin, No. 123 (8 December 2008).

<sup>93</sup> See also Sections 66A, 92 and 93 of the Representation of the People Act 1983 (is amended by section 144 of the Political Parties, Elections and Referendums Act 2000); Section 333 of CA 2003; Paragraph 18 of Schedule 12 of the Ofcom Rules on Party Political and Referendum Broadcasts.

<sup>94</sup> Ofcom, 'The Ofcom Broadcasting Code' (Ofcom, April 2017) Section 6, para 6.2-6.3.

<sup>95</sup> *Ibid.*, para 6.9-6.10.

<sup>96</sup> For the discussion about the Internet, Social Media and Election *See* Committee of experts on Media Pluralism and Transparency of Media Ownership, 'Study on the use of Internet in electoral campaigns' (CoE, 14 November 2017).

In 2016, there was a scandal on Facebook's operation during the US presidential election. Gizmodo alleged that Facebook's 'trending topics' bar had been tweaked so that it did not include more conservative news. Facebook was biased against right-wing sources even though news stories of interest to conservative readers were organically trending among the site's users.<sup>97</sup> This suppression of conservative news on Facebook's 'trending topics' feature obviously had a negative effect on exposure diversity. It put one political viewpoint to the marginal and indirectly caused undue prominence of other views. Also, the personalisation by algorithms makes people see mostly their favourite candidate or campaign and ignore the opposite side. Consequently, selection intermediaries become the public platforms where exposure diversity to contrast political debates are difficult to achieve.

Therefore, selection intermediaries should have a responsibility to be impartial during the election and referendum periods. They must provide appropriate opportunities for the reports and discussions of every candidate or campaign to obviously appear in result recommendations. For example, search engines should provide at least both sides of the coverage of large parties when people use normal terms related to the election or unspecific to a particular party in the search query; such as 'US election', 'EU referendum'. This should also be applied to when people search for particular policy or event. When people search by including specific words such as 'Trump', 'liberal' and 'vote yes', search results should also provide the opposite side of views alongside the original results. Also, when search results include an opinion or criticism from one view, the other standpoints should appropriately be displayed alongside the search result for comparison.

For social media, although result recommendations are usually provided by others not the user's search query, social media can provide diverse viewpoints during the election and referendum periods. For example, they can set algorithms or personalization to link various political opinions to appear in result recommendation more than usual although this content has a weak tie or is normally excluded from one's screen. In case where people set a default to follow certain speakers, the opposite views should be provided alongside and should be obviously noticed. Besides, other functions of social

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<sup>97</sup> Michael Nunez, 'Former Facebook Workers' (Gizmodo, 5 September 2016) <<http://gizmodo.com/former-facebook-workers-we-routinely-suppressed-conser-1775461006>>

media which suggest other content should include diverse standpoints with due weight. Examples of how these technical functions of selection intermediaries could be implemented in practice are discussed in Part II regarding ‘diversity by design’.

ii. Providing news and controversial issues

Apart from reporting election and referendums, due impartiality must be preserved in case of news, major political and industrial controversy, and matters relating to current public policy.<sup>98</sup> When dealing with these topics, media entities must ensure that any views expressed are specifically balanced by presenting opposite views.<sup>99</sup> On the contrary, broadcasters are free not to comply with impartiality in an art programme or a review of a current exhibition of films.

This aspect of impartiality in providing news and controversial issues can be applied to encourage exposure diversity. The problem of audience polarisation in news and controversial issues is one of the primary concerns of exposure diversity. Thus, selection intermediaries should have a responsibility to provide impartial result recommendations regarding news, major political and industrial controversy, and matters relating to current public policy. In other words, an appropriate range of significant views of these issues should be included and given due weight in result recommendations. For example, (similar to the application of impartiality in the case of reporting elections and referendums) search engines should provide an appropriate opportunity for the reports and discussions of both sides of the story to obviously appeared in result recommendations when people search for these topics. Also, when the recommendation of social media includes the opinion or argument related to these issues, the opposite side of views should be placed in a way that is appropriate for comparison. For instance, in 2013, Facebook launched Related Articles to help people discover content beyond their political bubbles. After people read an article on controversial topics, Related Articles shown them a few other articles from different publishers about the same topic<sup>100</sup>. How the functions of selection intermediaries could be applied in practice will be further discussed in Part II regarding ‘diversity by design’.

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<sup>98</sup> Ofcom, ‘The Ofcom Broadcasting Code’ (Ofcom, April 2017) Section 5, para 5.1, 5.5, 5.11.

<sup>99</sup> Ibid., para 5.12.

<sup>100</sup> Sara Su, ‘New Test with Related Articles’ (Facebook Newsroom, 25 April 2017) <<https://newsroom.fb.com/news/2017/04/news-feed-fyi-new-test-with-related-articles/>>

Moreover, selection intermediaries should prevent one side of views from overwhelming in result recommendations, especially in the case of intentionally bombarding. In particular, BuzzFeed's community is a social media platform which allows users to create and publish stories. A story published by users may be selected by an editor of BuzzFeed to present in home page alongside standard content. Since BuzzFeed has become a leading news source for the users, it can be abused. In 2013, an anti-abortion group used BuzzFeed's platform to circulate controversial messages through social media. In response to a swelling number of community submissions, BuzzFeed issued new guidelines to stricter control user-generated content on its platform.<sup>101</sup>

This case obviously illustrates that selection intermediaries (especially social media) can be exploited to promote one side's views. When a certain story is increasingly repeatedly posted to a significant amount of time, it will marginalise other stories so that they disappear from the platform. Therefore, selection intermediaries should have a responsibility to ensure that their platform is not taken over by a partisan group. To prevent bombarding of one side of views, selection intermediaries could create algorithm to monitor an abnormal increase of repeated posts.<sup>102</sup> When there is an alert of an abnormal increase of certain information, there are several measures that can be taken including notifying the audience of the situation, removing the overload information or blocking the person who create a bombard of such content. This is similar to impartiality requirements for broadcasters which prevents undue prominence of views and opinions of a particular person or body on controversial issues.<sup>103</sup>

### iii. Accuracy and preventing fake news

The last significant requirement for impartiality illustrated here is media content being reported with accuracy. As mentioned above, impartiality is not a simple mathematical balance between truth and untruth or right and wrong. This is because false or incorrect information can cause people to misunderstand a story and can be regarded as favouring one side over another. Impartiality also prevents misrepresentation coloured by reporting own bias or belief: and it forces a journalist to investigate the truth and

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<sup>101</sup> See Kellie Riordan, 'Accuracy, Independence, and Impartiality' (RISJ, 2014) 35-37.

<sup>102</sup> See Part II of Chapter 4 for the application of 'diversity by design'.

<sup>103</sup> Ofcom, 'The Ofcom Broadcasting Code' (Ofcom, April 2017) Section 5, para 5.13.

present facts with evidence-based judgments. Therefore, where a news report is inaccurate, such news should be acknowledged and should be managed quickly and appropriately.<sup>104</sup> Besides, views and facts must not be misrepresented.<sup>105</sup>

Accuracy is related to exposure diversity. The conceptualizations of exposure diversity can be classified as ‘principled exposure’ and ‘unprincipled exposure’.<sup>106</sup> Principled exposure regards that some types of media content are more valuable than others in the advance of the public interest. For unprincipled exposure, the idea is that all content is neutral with none more valuable. This classification of exposure diversity leads to a discussion about whether there are wrong choices and whether there is a need to protect users against such wrong choices.<sup>107</sup> By regarding the concept of due impartiality, exposure diversity does not mean all content should be treated equally (e.g. giving unproven or scientifically unsupported claims to be exposed equally to those of the experts is a misrepresentation of impartiality). The value of information is based on the credibility of well-ascertained fact regardless whether the content is professional or amateur, e.g. citizen journalist can provide evidence-based viewpoint or reliable information. This requires selection intermediaries to design their presentation of result recommendation by weighing up quality/credibility of the material fact according to the variety of the subject. It is critical to define whether some content is a more valuable choice than others; however, it is obvious that false information should not be treated or valued the same way as truth. In the environment of information abundance, people do not have the ability to distinguish between fact and fiction. If we allow false information to mix up with reliable information, it will degrade the exposure to quality content. Besides, incorrect information may adversely cause people to listen to only the big brand media companies and leave out marginal voices because they doubt the trustworthiness of the source.

Nowadays, the world faced a serious threat of a spread of fake news on the Internet. For example, fake news about Donald Trump receiving an endorsement from Pope Francis was seen by potentially millions of people on Facebook during the final weeks of the US election in 2016. Without proper checks, Facebook leaves a foreign

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<sup>104</sup> Ibid., para 5.2.

<sup>105</sup> Ibid., para 5.7, 5.12.

<sup>106</sup> Natali Helberger, ‘Diversity by design’ (2011) 1 J.Inf.Pol 441, 454-455.

<sup>107</sup> J.M. Breemen et al., ‘On the Regulator’s Plate’ (2011) 1 J.Inf.Pol 370, 374.

power using fake accounts to push misinformation and political advertising in an attempt to influence the US election.<sup>108</sup> Google's search algorithm appeared to be systematically promoting false information with an extreme right-wing bias on controversial subjects such as climate change and homosexuality.<sup>109</sup> Whereas this is not in the capability of an average person to deal with, selection intermediaries can and should be pitching in to assist people in discarding fake news. However, with the exception of Germany, the current legal liability does not impose any obligation on selection intermediaries in this case.<sup>110</sup>

Therefore, selection intermediaries should have a responsibility to prevent fake news from mixing up in result recommendations. There are various measures that could be provided.<sup>111</sup> For example, Facebook has announced options allowing users to flag fake news and providing a special label 'disputed'.<sup>112</sup> Also, Facebook will send potential fake stories to a partnership company who runs a fact-checking website in order to check the facts and provide a layer of verification on questionable sites.<sup>113</sup> Google executives talked about creating a browser extension that works like a spell-checker but was a 'misinformation detector'<sup>114</sup> and it will place a 'Fact Check' tag in its News results.<sup>115</sup> To boost transparency and media literacy, Facebook launched its Journalism Project in January 2017 focusing on news literacy and combatting news hoaxes such as introducing

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<sup>108</sup> Nic Newman, 'Journalism, Media, and Technology Trends and Predictions 2018' (RISJ, 2018), 8-9.

<sup>109</sup> Olivia Solon and Sam Levin, 'How Google's search algorithm spreads false information with a rightwing bias' (The Guardian, 16 February 2016) <<https://www.theguardian.com/technology/2016/dec/16/google-autocomplete-rightwing-bias-algorithm-political-propaganda>>

<sup>110</sup> German Court rules against Syrian refugee who seeking a temporary injunction for preventing his photo used in false news being shared in Facebook. The court said that Facebook was not responsible for preemptively removing offensive content under European e-commerce law. See Atika Shubert and Nadine Schmidt, 'Syrian refugee loses fake news battle with Facebook' (CNN, 7 March 2017) <<http://money.cnn.com/2017/03/07/technology/facebook-germany-fake-news-refugee-court/>>

<sup>111</sup> See Nicky Woolf, 'How to solve Facebook's fake news problem' (The Guardian, 29 November 2016) <<https://www.theguardian.com/technology/2016/nov/29/facebook-fake-news-problem-experts-pitch-ideas-algorithms>>

<sup>112</sup> Andrew Griffin and Rachel Roberts, 'Facebook's plan to stop fake news revealed by Mark Zuckerberg' (Independent, 15 December 2016) <<http://www.independent.co.uk/news/uk/politics/facebooks-plan-to-stop-fake-news-revealed-by-mark-zuckerberg-facebook-changes-what-are-they-fake-a7478071.html>>

<sup>113</sup> BBC, 'Facebook to roll out fake news tools in Germany' (BBC, 15 January 2017) <<http://www.bbc.co.uk/news/business-38631847>>

<sup>114</sup> Heather Timmons, 'Google executives are floating a plan to fight fake news on Facebook and Twitter' (Quartz, 8 February 2018) <<https://qz.com/1195872/google-facebook-twitter-fake-news-chrome/>>

<sup>115</sup> Catey Hill, 'Facebook and Google's war with 'fake news' heats up' (Moneyish, 14 April 2017) <<https://moneyish.com/ish/google-joins-facebook-in-declaring-war-on-fake-news/>>

related links to provide additional perspectives for stories shared in the News Feed.<sup>116</sup> Lastly, Facebook, Google and Twitter have committed to use new ‘trust indicators’ which show an icon people can tap to learn more about the publications and journalists behind articles (e.g. ethics policy, funds, ownership structures and author histories).<sup>117</sup>

In the UK, The Digital, Culture, Media and Sport Committee recommends in an Interim Report on Fake News that ‘tech companies’ (social media and internet service providers such as Facebook, Twitter, and Google) should have a responsibility for misleading content on their sites and the Government should use the rules which set and enforce content standards for broadcasters (such as rules relating to accuracy and impartiality) as a basis for setting standards for online content.<sup>118</sup> In Germany, a new law was passed in October 2017 that promises to fine platforms up to 500,000 euros for each fake news story that it fails to immediately delete within 24 hours.<sup>119</sup> However, there are questions on the effectiveness of these measures and there are concerns that certain fact-checking approaches may reinforce existing beliefs causing partisan audiences.<sup>120</sup> To identify precise mechanics in dealing with fake news, many issues (not only the problem of exposure diversity) have to be concerned. The issues that need to be considered are, for instance, what and when does legitimate commentary should be considered as fake news?; what is the impact of fake news and how fake news is perceived by people of different ages, social backgrounds and genders?; how citizen are aware of online disinformation and how do they deal with it?; are we overly concerned with fake news? All of these issues require knowledge from empirical research in multidisciplinary fields. Also, the business model of fake news and how fake news generates revenues have to be analysed. Lastly, recommended measures for fake news have to be balanced with freedom

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<sup>116</sup> Fidji Simo, ‘Introducing’ (Facebook, 11 January 2017) <<https://media.fb.com/2017/01/11/facebook-journalism-project>>

<sup>117</sup> Seth Fiegerman, ‘Facebook, Google, Twitter to fight fake news with ‘trust indicators’’ (CNN, 16 November 2017) <<http://money.cnn.com/2017/11/16/technology/tech-trust-indicators/index.html>>

<sup>118</sup> Department of Culture and Sport, ‘Disinformation and “fake news”’: Interim Report’ (House of Commons 5th Report of Session 2017–19, 29 July 2018) 64.

<sup>119</sup> Harriet Agerholm, ‘Germany may fine Facebook up to 500,000 Euros for every fake news article it publishes’ (Independent, 20 December 2016) <<http://www.independent.co.uk/news/world/europe/facebook-fake-news-article-fine-germany-fake-news-article-thomas-oppermann-sdp-chairman-a7484166.html>>

<sup>120</sup> See e.g. Elizabeth Kolbert, ‘Why Facts Don’t Change Our Minds’ (The New Yorker, 27 February 2017) <<https://www.newyorker.com/magazine/2017/02/27/why-facts-dont-change-our-minds>>; Sam Levin, ‘Way too little, way too late’ (The Guardian, 13 November 2017) <<https://www.theguardian.com/technology/2017/nov/13/way-too-little-way-too-late-facebooks-fact-checkers-say-effort-is-failing>>.

of speech and democratic discourse. Due to the limit and scope of the thesis, the discussion in detail of what form should be properly taken to prevent fake news will not be provided here. One thing that is clear from the example mentioned above, selection intermediaries have the potential to deal with fake news and to encourage media literacy and exposure diversity by designing their technical structure in their platforms.

In conclusion, selection intermediaries' bias which has an influence on information accessibility has a significant effect on exposure diversity. To encourage exposure diversity, there should be an obligation imposed on selection intermediaries to prevent arbitrary or unreasonable manipulations of content. Since the characteristics of selection intermediaries are a combination of those of network providers and media companies, the principles of net neutrality and impartiality should be applied. Net neutrality supports exposure diversity by ensuring diverse content is not excluded or not to lose an opportunity to be exposed to people. Thus, selection intermediaries should have a responsibility to operate neutrally: i.e. (i) not to block the transmission of content and social online activities, (ii) operate reasonable management to prevent commercial or other bias, and (iii) not to charge for the provision of content in normal result recommendations. Also, impartiality encourages exposure diversity by promoting accessibility to sufficient alternative information. It imposes an obligation on selection intermediaries to present diverse viewpoints in their result recommendations. This can be in the form of preventing one side of views from overwhelming result recommendations such as by dealing with bombarding of information and fake news. It can also be in the form of providing diversity to be obviously noticed in result recommendations such as during the period of an election and referendum, or on a controversial issue. The principles of net neutrality and impartiality can be supported by an implementation of the so-called 'diversity by design' for selection intermediaries to embed exposure diversity concerns into their algorithms, functions and screen features at the design stage. Therefore, 'diversity by design' is another measure to be imposed on selection intermediaries to achieved exposure diversity. The concept and possible implementation of 'diversity by design' will be analysed in the next part.

## **Part II: Diversity by Design**

The design of technical structures of selection intermediaries, i.e. algorithm, functions and screen features, influences how people can be exposed to information. Not only that a principle of law can encourage exposure diversity, technology can be a supplementary measure to help people to consume more diverse content. This Part, therefore, analyses the concept of ‘diversity by design’ as an obligation of selection intermediaries to design their technical structures to provide diverse content presented to audience. It starts with a discussion about the importance of technical structure of selection intermediaries on exposure diversity. The next section explores the idea that technology can assist the law to achieve a desirable goal. An example of law which use a design of technology to fulfil a legal objective, i.e. data protection by design, is discussed in the third section. Finally, the application of diversity by design to selection intermediaries is discussed in the last two sections.

### 1. The influence of technical structure of selection intermediaries

As discussed in Part I, exposure diversity can be adversely affected by the bias of selection intermediaries; one of the bias is the design of the technical structure of selection intermediaries. Digital technology increasingly controls the backbone of media and information systems. This control typically occurs deep within the software and technical automatic systems far from the awareness of people. These technologies routinely modify content presented to people by, for example, selecting what information can be trusted, computing what is trendy or popular, or calculating what one should know or may be interested in. Consequently, the technological architecture constitutes a set of constraints on what one can believe, as Steiner argues that:

‘We are not always shaping the algorithms, they are shaping us. They shape our culture, they shape what we see, they shape what we hear, they shape how we live’<sup>121</sup>

The design of the technical structure of selection intermediaries may be invisible to people such as the algorithms underlying their service. For example, to serve what the majority is interested in, selection intermediaries often include popularity algorithms in their operation to give more weight to the information coming from popular websites. As a result, people tend to be exposed to popular voices while the marginal voices are forced

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<sup>121</sup> Christopher Steiner, ‘Algorithms are Taking over the World’ (TEDxOrangeCoast, 10 November 2012) <<http://www.tedxorangeoast.com/videopick/christopher-steiner-algorithms-are-taking-over-the-world/>>

to disappear from the people's attention.<sup>122</sup> Personalisation algorithms select information based on what the users are interested in. The consequence is that recommendation results are different from person to person leading people to join groups conforming with their existing beliefs. Also, search results provided by search engines are remarkably influenced by link structure. As Hindman illustrates: '...the more [links] there are to a site, the more traffic [web] will receive. The pattern of links that lead to a site also largely determines its rank in search engine results'.<sup>123</sup>

Furthermore, the technical structure of selection intermediaries can be visible such as functions and screen feature on the web pages of selection intermediaries. For example, the 'Unfriend' function on Facebook and 'Unfollow' function on Twitter enable people to view only like-minded opinions and to lock themselves into their own little world.<sup>124</sup> Consequently, the functions of social media may lead to fragmentation and polarisation of public opinion: it will cause people to discard other opinions that worth being considered.<sup>125</sup> However, there are also functions in social media (such as 'Suggest') which can promote people to consume different viewpoints. Therefore, the influence of selection intermediaries over exposure diversity profoundly depends on how the technical structure is designed.

This does not mean that the technical structure of selection intermediaries per se has an adverse impact on diversity of exposure. The mechanism of selection intermediaries can be exploited to restrict as well as to encourage diverse choices exposed to people. In other words, these technical structures can provide an opportunity for exposure diversity to be achieved. Legal provision is not the only strategy to solve exposure diversity problem: technology can be supporting instruments. Therefore, a comprehension of the functions and algorithms of selection intermediaries (and the effect they have on people's behaviour) is a precondition for achieving exposure diversity.

Impartiality of selection intermediaries (discussed in the previous Part) can be regarded to reduce bias on a platform by setting the default of the system in a way that

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<sup>122</sup> Lucas Introna and Helen Nissenbaum, 'Shaping the Web' (2000) 169 *The Information Society* 169, 174-177.

<sup>123</sup> Matthew Hindman, *The Myth of Digital Democracy* (PUP 2009) 15.

<sup>124</sup> James Webster, 'User Information Regimes' (2010) 104 *Nw.U.L.Rev* 593, 606.

<sup>125</sup> Cass Sunstein, *Republic.com 2.0* (PUP 2007) 77-78; Nic Newman, et al., 'Reuters Institute Digital News Report 2017', (RISJ, 2017) 16. See the discussion in chapter 2 page 32.

ensures an existence of different perspectives. At the same time, the design of technological architecture for the provision of a broad range of views can be seen as a concrete measure in applying impartiality. Therefore, selection intermediaries should be obliged to actively design their algorithms, functions and screen features of their web pages to facilitate people to consume more diverse choices. The idea of regulating technology to achieve the desirable goal will be discussed in the following section.

## 2. The idea of using technology to achieve legal goals

The acknowledgement that technology is not merely a tool but a necessary creation of social values has occurred among philosophers and sociologists since the mid-1990s.<sup>126</sup> Especially in the context of the Internet, it has become clear that the conventional law used to regulate the real world (constitutions and statutes) are inadequate to address new issues in the online world. Consequently, there is a growing interest in using technology as other forms of regulation. As stated in Lessig's book, *Code and Other Laws of Cyberspace*:

'In cyberspace we must understand how code regulates—how the software and hardware that make cyberspace what it is regulate cyberspace as it is. As Mitchell puts it, this code is cyberspace's "law." Code is law.'<sup>127</sup>

In a board sense, the term 'code' does not mean just program code and algorithms, but also the physical environments or the entire architectures which construct the Internet. These include the hardware, the wires, and the devices attached to wire or wireless Internet. However, in this thesis, code is only referred to software and algorithms whether it operates invisibly or creates function and screen feature of selection intermediaries.

### a. Code is law

An influential critic of the regulation by technology is Reidenberg. He provides a counter-argument from the opinion that the Internet is free from regulatory intervention and regulator. From his view, although the new landscape of the Internet is unlike the

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<sup>126</sup> The study of Science, Technology and Society provides that the designs of technology are always embed certain values and that users construct the social meaning of technology over time. See e.g. Jeffrey Rosen, *The Naked Crowd* (Random House Publishing Group 2004) 100 ('Nearly all of these technologies can be designed in ways that strike better or worse balances between liberty and security'); Helen Nissenbaum, 'Accountability in a Computerized Society' (1996) 2(1) *Science and Engineering Ethics* 25.

<sup>127</sup> Lawrence Lessig, *Code and Other Laws of Cyberspace* (Basic Books 1999) 6 (emphasis in original).

geography of the real world, this network architecture is created by human and thus in our control. Reidenberg suggests a new way of controlling the online environment by using network architecture:

‘Network architecture also creates a significant type of border. System design imposes rules of order on an information society. Technical choices are policy decisions that have inherent consequences for network participants ... Gateways between different systems or between a proprietary network like America OnLine and the Internet establish fundamental rules of conduct; without a gateway, interactions are effectively prohibited. In effect, technical standards exert substantial control over information flows. The degree of system interoperability thus determines the openness of the information society and determines whether network architectural “borders” can be crossed.’<sup>128</sup>

His concept is called *Lex Informatica* which refers to the regulation of Internet users by the imposition of law on the system or technological design choices.<sup>129</sup> He, therefore, argues that the regulatory regimes should shift its focus from the direct interference by the government toward the control of technical standard and architecture. In other words, online activities of people can be indirectly manipulated by controlling the change of technological architecture.

This idea has been further explained and developed by Lessig. From the traditional perspective of law, the only factor to protect social value is directly tied to legal regulation. From this perspective, the protection of social value is simply considered by the creation and change of legal code. From Lessig’s view, however, regulation comes not just from laws, but also from norms, from the market, and from the architecture of the world.<sup>130</sup> These four modalities of regulation are distinct but are in common to constrain people’s behaviour. Laws control the activities of individuals by making certain activities illegal and addressing punishments. Markets constrain the choice of actions people have through price and price-related signals. Norms make certain behaviours being subject to social sanctions such as criticism and ostracism. Finally, architecture constrains behaviour by creating physical structures as an obstacle. For example, gravity is a natural

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<sup>128</sup> Joel Reidenberg, ‘Governing Networks and Rule-Making in Cyberspace’ (1996) 45 Emory Law Journal 911, 917.

<sup>129</sup> For further discuss see Joel Reidenberg, ‘Lex Informatica’ (1997) 76 Texas Law Review 553.

<sup>130</sup> Lawrence Lessig, *Code Version 2.0* (Basic Books 2006).

architecture in the real world which forbid humans from flying. Also, locked doors, wall and parking bollards are man-made architectures to prevent the thieves.

Lessig demonstrates that code is like physical architecture. On the Internet, it regulates online behaviour similarly to the way that physical architecture regulates behaviour in the real world. Code is an important regulator on the Internet because code designs what and how the Internet is built. In other words, the Internet simply would not exist without this code. Therefore, code can constrain the behaviour of people on the Internet as effectively as the law can.<sup>131</sup> By quoting the word ‘code is law’, Lessig provides the idea that code does the work of law but in an architectural way.

For example, when the Internet was first deployed, its architecture produced relative anonymity for Internet users which means that the basic protocols protect the user from inadvertently revealing their information. This can be considered as the protection of privacy. However, the development of ‘cookies’ technology enables a web server and the government to monitor or track individual behaviours. Therefore, the privacy of individuals on the Internet decreased due to a change of technology, not from law. Furthermore, the protection of intellectual property is determined not just by intellectual property law but also by using code such as digital rights management (DRM).<sup>132</sup>

Like Reidenberg, Lessig emphasises the capability of technology as the most obvious development in the Internet regulation. Policy makers cannot rely on law alone. Instead, they require a consideration of the interaction between law and technology. As Lessig says: ‘code will present the greatest threat to both liberal and libertarian ideals, as well as their greatest promise. We can build, or architect, cyberspace to protect values that we believe are fundamental. Or we can build, or architect, or code cyberspace to allow those values to disappear’.<sup>133</sup>

Edwards agrees with Lessig and further interprets this idea that code is superior to the law as a means of effective regulation, as she said: ‘code (often, though not always) trumps law’.<sup>134</sup> Edwards argues that code is more effective at achieving the aim of the

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<sup>131</sup> For further discuss see James Grimmelmann, ‘Regulation by Software’ (2005) 114 *The Yale Law Journal* 1719.

<sup>132</sup> See Lawrence Lessig, ‘Law Regulating Code Regulating Law’ (2003) 35(1) *Loyola University Chicago Law Journal* 1.

<sup>133</sup> Lawrence Lessig, *Code Version 2.0* (Basic Books 2006) 6.

<sup>134</sup> Lilian Edwards, ‘Coding Privacy’ (2010) 84(3) *Chicago-Kent Law Review* 861, 862.

regulation in whatever problems the laws attempt to regulate. For instance, in the case of copyright protection, DRM can effectively prevent the copyright infringement while the law has been almost completely ineffective in preventing digital copying. Although there will be the development of code to circumvent DRM, a new code will be presented and adopted in practice. This is similar to the case of preventing spam. Whereas there are many laws both EU Directives and national regulations for data protection and spam control, none of these laws has had a meaningful effect on preventing spam without the help of spam filter technology. In contrast, the anti-spam code alone can decrease the flow and dissemination of spam email.<sup>135</sup>

b. Code and law

Code alone, however, is not sufficient to achieve exposure diversity. This is due to the incentive for the development of code depends on the commercial interest of selection intermediaries, not social value. The market inevitably plays a role here as well, whether it is: the motivation to support their affiliated entities and defeat competitors, or the burden of extra cost to bear, or the preference of users to consume content. All of these factors may not always harmonise with (and usually conflict with) the promotion of exposure diversity. Accordingly, legal force should assist in shaping the direction of technology development into the way towards the exposure diversity goal.

If lawmakers can regulate code and code can regulate individuals' behaviour, then this logical conclusion provides us with an effective way to shape the conduct of individuals. Therefore, an understanding of the interaction between law and technological structures is essential if regulations tend to have the achievement of exposure diversity. The effective encouragement for exposure diversity depends upon the sum of the protections from both law and technology. Likewise, the negative change in the provision of diverse content depends upon both the changes in law and the changes in technology.

3. Example of technology design in privacy law: 'data protection by design'

The regulation of technological structure to achieve a desirable outcome has been implemented in other areas of law. One of the current debates is in privacy law, the

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<sup>135</sup> Ibid, 863.

concept of ‘data protection by design’. This section, therefore, discusses data protection by design as an example of how policymakers embed technological design in legal regulation.

a. The concept of privacy by design

Privacy by design is the focus on the privacy implications of new technologies at the design stage. The idea of this approach is simple: ‘embed privacy within a technological system as an integral part of the design, and do so ex ante and throughout the technological lifecycle, rather than try to fix it ex post, when it is often too late and expensive’.<sup>136</sup> It argues that effective protection of online privacy cannot be achieved by legal frameworks alone; it also needs to be secured through technological means. It suggests a paradigm shift with respect to taking privacy seriously as a requirement in the design of the Internet. Privacy by design insists that privacy is to be considered as a threshold system requirement and should not be traded-off without significant consideration. Therefore, privacy by design is the approach which moves from a reactive remedy to a proactive role of selection intermediaries (default setting). In other words, websites’ owners have the legal duty to design their web pages with respect to the privacy of users.

The concept of ‘privacy by design’ was coined by Cavoukian, IPC for Ontario. It is derived from the concept of ‘privacy enhancing technologies’ (PETs)<sup>137</sup> which was first used in the report ‘Privacy-enhancing technologies’ in 1995.<sup>138</sup> This report was the result of a joint project set up by the IPC of Ontario, Canada and the Dutch data protection authority. The report explored a new approach to privacy protection and placed much emphasis on the approach to treat PETs as a policy tool, rather than just a technological one. As Cavoukian suggests:

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<sup>136</sup> Michael Birnhack et al., ‘Privacy mindset, technological mindset’ (2014) 55 *Jurimetrics Journal* 55, 57.

<sup>137</sup> PETs are tools with discrete goals that address a single dimension of privacy such as anonymity or confidentiality. In contrast, privacy by design is not a specific technology but a systematic approach that designs any technology to embed privacy into the architecture. For further discussed on PET see e.g. Herbert Burkert, ‘Privacy-Enhancing Technologies’ in Philip Agre and Marc Rotenberg (eds.), *Technology and Privacy* (MIT Press 1998) 125; Ira Rubinstein, ‘Regulating Privacy by Design’ (2011) 26 *Berkeley Technology Law Journal* 1409.

<sup>138</sup> IPC, ‘Privacy-enhancing Technologies’ (Registratiekamer, August 1995)

‘...[T]he future of privacy cannot be assured solely by compliance with regulatory frameworks; rather, privacy assurance must ideally become an organisation’s default mode of operation...’<sup>139</sup>

Accordingly, privacy by design deserved some more occasional discussion by policymakers. For instance, in 2010, the International Conference of Data Protection and Privacy Commissioners (ICDPPC) in Jerusalem adopted a resolution that recognised privacy by design as an essential component of the fundamental privacy protection.<sup>140</sup> It also encouraged the adoption of the foundational principles of privacy by design which is proposed by Cavoukian<sup>141</sup> as the guidance for an organisation’s default mode of operation. Furthermore, the ICDPPC encouraged national authorities to promote privacy by design in their jurisdictions.

In the EU, privacy by design has developed from rather an abstract idea or a standard practice to a binding legal requirement.<sup>142</sup> The first, but not yet classified as privacy by design, is Article 17 of the Directive 95/46/EC which lays down the data controllers’ obligation to implement appropriate technical and organisational measures.<sup>143</sup> Besides, Recital 46 calls for such measures to be taken both at the time of the design processing system and at the time of the processing itself.<sup>144</sup> Whereas the above provisions of the Directive are helpful towards the promotion of privacy by design, these provisions are not sufficient in ensuring that privacy is embedded in technological design in practice. Users are also not in a position to take relevant security measures by themselves in order to protect their own or other persons’ personal data.<sup>145</sup>

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<sup>139</sup> Ann Cavoukian, ‘Privacy by design’ (2009) Workshop, Madrid, Spain. <<http://www.privacybydesign.ca/content/uploads/2009/11/2009-11-17-PbD-Madrid-Programweb.pdf>>

<sup>140</sup> 32nd ICDPPC, ‘Resolution on Privacy by Design’ (27-29 October 2010) <<https://icdppc.org/wp-content/uploads/2015/02/32-Conference-Israel-resolution-on-Privacy-by-Design.pdf>>; For the discussion in the US see e.g. Bureau of Consumer Protection, Federal Trade Commission (FTC), ‘Protecting Consumer Privacy in an Era of Rapid Change’ (Preliminary FTC Staff Report, December 2010); For the discussion in the EU see e.g. Commission of The European Communities, ‘Communication from the Commission to the European Parliament and the Council on Promoting Data Protection by Privacy Enhancing Technologies (PETs)’ (European Commission, 2 May 2007).

<sup>141</sup> See the next subsection ‘the 7 foundational principles of privacy by design’.

<sup>142</sup> Also, in Canada, the Protection of Information and Electronics Documents Act, Canada’s federal private-sector legislation contains provisions relating to privacy by design requirements.

<sup>143</sup> Article 17 of Data Protection Directive (95/46/EC).

<sup>144</sup> Ibid., Recital 46.

<sup>145</sup> Art.29WP, ‘The Future of Privacy’ (WP 168, 1 December 2009) Section 45.

Following the 2009 European Consultation, the European Parliament published a comprehensive proposal to replace the 1995 Directive with GDPR. Article 25 of the GDPR has entitled ‘Data protection by design and by default’ and reads as follows:

‘1. ... the controller shall, both at the time of the determination of the means for processing and at the time of the processing itself, implement appropriate technical and organisational measures, such as pseudonymisation, which are designed to implement data-protection principles, such as data minimisation, in an effective manner and to integrate the necessary safeguards into the processing in order to meet the requirements of this Regulation and protect the rights of data subjects.

2. The controller shall implement appropriate technical and organisational measures for ensuring that, by default, only personal data which are necessary for each specific purpose of the processing are processed. That obligation applies to the amount of personal data collected, the extent of their processing, the period of their storage and their accessibility. In particular, such measures shall ensure that by default personal data are not made accessible without the individual's intervention to an indefinite number of natural persons.’<sup>146</sup>

Article 25 of the GDPR obliges technology designers and data controllers to take technological data protection into account at the planning stage of information procedures and systems. It requires that the protection of personal information should not only maintain security but also should be default settings and automatically enforce as much as possible in a way to avoid or minimise the amount of personal data processed. Providers of services also have to demonstrate that they have taken all measures required to comply with the requirements in the GDPR. Overall, the new legal framework suggests the addition of several dimensions from the Directive 95/46/EC; such as time, scope, subject matter, and substantive principles. For example, it provides that the technological measures should be applied at the initial design and throughout the lifecycle of the processing.

b. The 7 foundational principles of data protection by design

Article 25 of the GDPR proposes a broad and open standard rather than a precise rule. This concept could be about designing a broad range of things and could make it

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<sup>146</sup> Article 25 of GDPR

difficult to establish a common and sufficiently concrete design methodology. Nevertheless, Cavoukian has provided the seven foundational principles as a guideline and framework to accomplish data protection by design objectives.<sup>147</sup> In many articles of the GDPR, the seven foundational principles appear as required measures for service providers to comply with. Also, the principles are becoming a reference for the application of diversity by design in practice and for policymakers to develop guideline. This subsection, therefore, will discuss these principles since it will be used as a basis for the implementation of diversity by design in the next section.

The first principle is ‘proactive not reactive’. This principle aims to prevent privacy invasive events before they happen. Data protection by design does not wait for privacy risks to materialise and only offer remedies for resolving privacy infractions. For example, the GDPR has provisions which require data controllers to develop adequate measures to assess risks which may occur in their processing activities.<sup>148</sup> In other words, the organisation should avoid acting exclusively with a remedial approach. The second principle, ‘privacy as the default setting’, requires an organisation to consider how to make privacy the default into the systems. If an individual does nothing, their privacy still remains intact. No action is required on the part of the individual to protect their privacy.<sup>149</sup> These measures are such as a purpose specification, collection limitation and data minimization. The third principle is ‘privacy embedded into design’. It emphasises that privacy should be considered at the earliest of brainstorming stages. Privacy protection should be embedded in the architecture of systems, operations, and business processes without lessening functionality for users.<sup>150</sup> It is not bolted on as an add-on after the fact. The result is that privacy becomes an essential component of the core functionality being delivered. Privacy is integral to the system without diminishing functionality.

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<sup>147</sup> Ann Cavoukian, ‘Privacy by Design’ (IPC of Ontario, August 2009) <<https://www.ipc.on.ca/images/resources/privacybydesign.pdf>>; There are many other privacy experts have contributed to its definition, application and scope. For example, Peter Schaar, the German Federal Commissioner for Data Protection and Freedom of Information distilled six Privacy by design principles that should be taken into account in the design or acquisition of a processing system (see Peter Schaar, ‘Privacy by Design’ (2010) 3(2) *Identity in the Information Society* 267.)

<sup>148</sup> See e.g. Article 35 ‘Data protection impact assessment’ of GDPR.

<sup>149</sup> See e.g. Article 32 ‘Security of processing’ of GDPR.

<sup>150</sup> See e.g. Recital 78 of GDPR.

The next two principles are ‘full functionality—positive-sum, not zero-sum’ and ‘full lifecycle protection’. The principle of ‘full functionality’ expresses that the privacy design of information systems should not be introduced at the expense of system functionality. It is possible to have privacy and security and both privacy and functionality. This principle avoids the idea that privacy protection necessarily will affect other interests negatively.<sup>151</sup> The ‘full lifecycle protection’ principle ensures that privacy by design has been embedded into the system prior to the first step of information being collected and has been extended throughout the entire lifecycle of the data involved.<sup>152</sup> In other words, privacy must be continuously protected across the entire domain and it should be no gaps between protection and accountability of relevant providers.

The last two principles are ‘visibility and transparency’ and ‘respect for user privacy’. The principle of ‘visibility and transparency’ expresses the great value of openness; in particular, the access to intelligible information regarding the processing of personal data. The principle seeks to assure that all stakeholders operate according to the stated promises and objectives and are subject to independent verification.<sup>153</sup> The principle put users in a notice of the information they are collected and processed. The last principle, ‘respect for user privacy’, maintains users’ privacy interests as the paramount. It requires architects and operators to keep the interests of the individual uppermost by offering measures such as strong privacy defaults, appropriate notice, and empowering user-friendly options. This principle refers to the ambition of creating an information system that empowers the user and generally supports the goal of maintaining his or her privacy.

### c. The impact of data protection by design

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<sup>151</sup> See Chapter 9 ‘Provisions relating to specific processing situations’ of GDPR: e.g. Article 85 ‘Processing and freedom of expression and information’, Article 89 ‘Safeguards and derogations relating to processing for archiving purposes in the public interest, scientific or historical research purposes or statistical purposes’ and Article 90 ‘Obligations of secrecy’.

<sup>152</sup> See e.g. Article 13 ‘Information to be provided where personal data are collected from the data subject’ and Article 28 ‘Processor’ of GDPR.

<sup>153</sup> See e.g. Article 68 ‘European Data Protection Board’ and Article 37 ‘Designation of the data protection officer’ of GDPR.

Data protection by design also faces criticism. It has been criticised for being vague and leaving many open questions about their application in engineering systems.<sup>154</sup> While lawyers and engineers may agree that privacy should be designed into new systems, there is little agreement as to what privacy means. The GDPR does not detail the meaning of data protection by design nor of privacy by default: it also does not provide the application in terms of corresponding privacy-preserving technical or other categories of solutions. Furthermore, even if Cavoukian's seven principles present important elements and guidelines regarding privacy by design, they are inadequate in explanations of how the concept can be practically implemented into engineering practices. Consequently, data controllers have little clues about how they should design their technology in relation to privacy.

Data protection by design, therefore, requires specification which can be done through delegated acts and technical standards adopted by the European Commission. In particular, the Art.29WP opinions and the European Data Protection Board will produce detailed opinions which offer more guidance. As the Art.29WP has stated that 'guidance issued by the [European Data Protection Board] (EDPB) may be useful'.<sup>155</sup>

However, it can be argued that the legislation of data protection by design has been posed as an abstract notion of technical strategy and in a technical neutral way because it is intentionally designed as an umbrella term for processing personal data so that the legislation remains relevant in the face of technical development.<sup>156</sup> Besides, it should be concerned that the provision of specific requirements on how technology should be designed has potential risks on disrupting technological innovation.

In practice, there are also numerous examples of feasible and successful applications of data protection by design.<sup>157</sup> For example, Smart Grid is an energy meter which affects energy savings but has negative implications for information collected.

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<sup>154</sup> See e.g. Inga Kroener and David Wright, 'A Strategy for Operationalizing Privacy by Design' (2014) 30 *The Information Society* 355, 357; Dag Wiese Schartum, 'Making privacy by design operative' (2016) 24 *Int.J.L.Info.Tec* 151, 153-157; Bert-Jaap Koops and Ronald Leenes, 'Privacy regulation cannot be hardcoded' (2014) 28(2) *International Review of Law, Computers & Technology* 159, 161-162.

<sup>155</sup> Art.29WP, 'Opinion 08/2012 providing further input on the data protection reform discussions' (WP199, 5 October 2012).

<sup>156</sup> Seda Gürses, Carmela Troncoso, and Claudia Diaz, 'Engineering Privacy by Design' <<https://www.esat.kuleuven.be/cosic/publications/article-1542.pdf>>

<sup>157</sup> For further example see Ann Cavoukian, 'Operationalizing Privacy by Design' (IPC of Ontario, 1 December 2012).

With the Ontario Smart Grid project which implements the system to include the principle of privacy by design (proposed by Cavoukian), the Smart Grid can operate without necessarily revealing detailed individual meter readings.<sup>158</sup> Consequently, the National Institute of Standards and Technology has recommended the privacy by design as an appropriate methodology in the Smart Grid. Another example, Arizona State University cooperates with an expert in the mobile industry to develop privacy by design roadmap on mobile technologies. The roadmap identifies key responsibilities across various stakeholders in a wide industry ecosystem; including the Device Manufacturers, OS/Platform Developers, and the Application Developers.<sup>159</sup> Also, IBM develops a privacy-protecting RFID tag, known as the ‘clipped tag’, for the retail sector. This development transforms the long-range tag into a short-range tag. The consumer may tear off a portion of the tag and the tag may still be used at a later time for return, recall, or experience a product warranty.<sup>160</sup> Lastly, by implementing the seven foundational principles, Ontario’s Lottery and Gaming Corporation is able to assure the privacy of millions of non-enrolled gamblers while allows for detect, identify and flag problem gamblers by using Biometric Encryption (for separating the facial recognition functions from the identification processes directly in the hardware, network and software).<sup>161</sup>

Moreover, policymakers, scholars and private sectors now have developed the guidance based on Cavoukian’s foundational principles to implement data protection by design in each specific sector. For example, the European Union Agency for Network and Information Security (ENISA) proposes privacy by design strategies in the different phases of the big data value chain and provides the specifically identified privacy enhancing technologies for the current and future big data landscape.<sup>162</sup> Laakkonen and his colleagues develop an approach that incorporates privacy by design principles to assess privacy risks during the digital game platforms development.<sup>163</sup> Besides, Perera proposes a set of privacy by design framework to guide software engineers in the

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<sup>158</sup> Ann Cavoukian, ‘Privacy by Design’ (IPC of Ontario, June 2010).

<sup>159</sup> Marilyn Prosch et al., ‘The Roadmap for Privacy by Design in Mobile Communications’ (IPC of Ontario, December 2010).

<sup>160</sup> Ann Cavoukian, ‘Transformative Technologies Deliver Both Security and Privacy’ (IPC of Ontario, 2008).

<sup>161</sup> Tom Marinelli et al., ‘Privacy-Protective Facial Recognition’ (IPC of Ontario, 1 November 2010).

<sup>162</sup> ENISA, ‘Privacy by design in big data’ (ENISA, 17 December 2015); See also ENISA, ‘Privacy and Data Protection by Design’ (ENISA, 11 December 2014).

<sup>163</sup> Jussi Laakkonen et al., ‘Incorporating Privacy into Digital Game Platform Design’ (2016) 14(4) IEEE 22.

systematic assessment of the privacy capabilities and existing gaps in Internet of Things applications and platforms.<sup>164</sup>

In conclusion, all of these examples illustrate that law can embed technological design to achieve the desirable outcome. Although the obligation to design technology to assist legal instruments may leave many open questions regarding practical application, the relevant stakeholders will eventually develop technical standards for the specification of practical implication. This is an interaction between legal force and technology development.

#### 4. The application of diversity by design

As discussed in the above sections, technology can assist legal regulation to achieve a desirable goal. This section, then, explores the application of diversity by design to encourage exposure diversity; it is divided into two subsections. By borrowing the principles from data protection by design, the first subsection examines the character of diversity by design as a fundamental framework for a new regulatory regime. It should be noted that this thesis does not provide a specific obligation of how technology should be particularly designed since selection intermediaries are various and the operation of the algorithmic system is complicated. Besides, a provision of specific requirements can intervene the innovation of technology. Therefore, the final subsection demonstrates examples of how selection intermediaries could possibly be designed to contribute to the promotion of exposure diversity. These examples are based on the classification of the exposure diversity concept discussed in Chapter 2: i.e. discovering the difference, exposing to diverse media outlets/speakers, facilitating comparison, and promoting serendipity.

##### a. The 7 foundational principles of diversity by design

By borrowing the 7 foundational principles of data protection by design created by Cavoukian, the framework of diversity by design can be considered as the following:

First, ‘proactive not reactive’, this principle requires selection intermediaries to provide proactive measures to promote exposure diversity rather than reactive measures

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<sup>164</sup> Charith Perera et al., ‘Privacy-by-Design Framework for Assessing Internet of Things Applications and Platforms’ (2016) International Conference on the Internet of Things.

to remedy after filter bubble occurs. Selection intermediaries should actively develop their technical structure to assist diverse content presented to audience. They should also prevent one side of views from overwhelmingly appears in individuals' result recommendations. For example, Facebook should actively present different point of views in the US election or UK referendum instead of waiting for complaints about its blocking or censoring one side of opinions and then resolving the problems once they have occurred. Also, selection intermediaries should create algorithms to monitor an abnormal increase of repeated posts to prevent bombarding of partisan opinions or fake news. Therefore, selection intermediaries have to ensure that their organisation's policies and concrete actions have reflected a commitment to diversity by design. This principle can also be done by developing a regulatory system to monitor the risks of filter bubbles and to correct any negative impacts before they occur. Particularly, the provision of diversity impact assessment is a process which can assist selection intermediaries in identifying and minimizing the risks on exposure diversity when a new system or initiative interface is introduced.

Second, 'diversity by default', one of the most effective yet most challenging methods of promoting exposure diversity is to ensure that the default settings of selection intermediaries (the settings that apply when the user is not required to take any action) are as diversity-supportive as possible. Diversity by default seeks to provide exposure diversity assurance by ensuring that diverse content is automatically presented in the screen features of selection intermediaries: it should present the topic a user is interested as well as suggest contributions from a different perspective. For instance, selection intermediaries may develop their personalization algorithms that present news from both Democrat and Republican sources rather than merely encourage comments among the like-minded. Search engines may design their algorithms and screen features to automatically provide search results in a form of clusters displaying controversial opinions to facilitate comparison. Diversity by default requires selection intermediaries to consider how to make exposure diversity to be automatically protected in any process, settings or business practices. In other words, diverse content is presented to users even if the individuals do nothing to adjust the settings of selection intermediaries since it should be built into the system by default.

The third principle is 'diversity embedded into design'. This principle emphasises that exposure diversity should be considered at the earliest of brainstorming stages. The

starting point for designing the system of selection intermediaries must always be maximally diversity-enhancing. Precisely, programmers should pay particular attention to the potential risk of filter bubble when designing algorithms of selection intermediaries. Practitioners should embed the encouragement of providing different viewpoints in the process of creating systems, operations, and business processes. For example, when presenting search results, search engines could design their presentation of search results to display, close to the normal results, links to other content that relate or contradict to the normal results (e.g. Google's Top Stories and Related Picks functions<sup>165</sup>). Functions and widgets of social media may be created regarding the notion of serendipity to display content which users have never seen or at random. As a result, exposure diversity is integral to the design and architecture of selection intermediaries and becomes an essential component of the core operation of selection intermediaries.

The fourth principle is 'full functionality: positive-sum'. The full functionality principle rejects the zero-sum view that exposure diversity must always compete with other legitimate interests such as the right of selection intermediaries, corporate's business interests, system efficiency and technological innovation. In contrast, diversity by design acknowledges that divergent interests must co-exist, and exposure diversity can be achieved without the expense of other functionalities that we value. The provision of diverse content does not conflict with business interest of selection intermediaries. This can be seen in the case of BBC which is a public broadcasting service serving media plurality and at the same time being the leading broadcasting (have largest market share) in the UK. Although people tends to prefer opinions which support their views, they are also interested in seeking out the differences, especially when the topic is a major event which has controversial issues or in the election periods.<sup>166</sup> Therefore, the provision of exposure diversity by selection intermediaries does not make users leave their platforms. In contrast, selection intermediaries which promote exposure diversity will attract people who search for various views. Besides, the full functionality principle includes considering the interests of relevant parties such as business entities, users and technical

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<sup>165</sup> See Section 4.b 'exposure to diverse media outlets/speakers' of this Part.

<sup>166</sup> Seth Flaxman et al., 'Filter bubbles, echo chambers, and online news consumption' (2016) 80 POQ 298; Kyle Heatherly et al., 'Filtering out the other side?' (2017) 19(8) NMC 1271; Q. Vera Liao and Wai-Tat Fu, 'Beyond the Filter Bubble: Interactive Effects of Perceived Threat and Topic Involvement on Selective Exposure to Information' (in Conference on Human Factors in Computing Systems, Paris, France, 27 April 2013) 2367 ('A person who is highly passionate about politics may seek diverse information when browsing political news.').

expertise. The practical standard and guidelines of diversity by design, thus, should be created by conducting consultation with these people.

The fifth principle is ‘full system protection’. It means that exposure diversity should be ensured since the first element of the system and should be continuously concerned across the entire operation of selection intermediaries. Particularly, exposure diversity must be concerned in the process of data collection, distinguishing opinions and visualising content. The protection of exposure diversity includes the design of algorithms regarding data selection and prioritization, customization and channeling, and personalization. In other words, diversity by design must be embedded into algorithms, functions, screen features and the entire process of presenting recommendation results.

The sixth principle is ‘visibility and transparency’. The principle assures that selection intermediaries make information about their operation relating to the processes of providing recommendation results readily available to regulators and all individuals. This is because transparency is essential to establish accountability and trust. Visibility and transparency can be created by the specific provision in the regulatory system. Precisely, to ensure that selection intermediaries operate according to the stated promises and objectives of diversity by design, they should be subject to independent verification. For example, selection intermediaries should be imposed an obligation to report supervisory regulators when selection intermediaries intend to adopt a new operation or change their systems. The power of the regulators to assess diversity risk by requesting all necessary information and conducting inspections of business is also subject to this principle. The discussion about a regulatory system regarding this principle will be provided in the next section.

The last principle, ‘respect diversity from user’s perspective’, requires the operators of selection intermediaries to keep the interests of the individual as the paramount. At its core, the provision of diverse recommendation results should be appropriately designed around the needs of the individuals for self-improvement, not to satisfy the preference of agreeable content. This principle can be interpreted that selection intermediaries use their best capacity to serve the interests of the individuals regarding exposure diversity. For instance, selection intermediaries which hold considerable power to influence people’s views should comply with a higher standard than a small platform to implement diversity by design. The higher standard can be in the form of using a higher

technology in their design of service or providing a number of functions, algorithms or screen features supporting exposure diversity. If powerful selection intermediaries with the capacity to lift the standard of diversity by design merely comply with an average standard set for every selection intermediaries, the interests of individuals regarding exposure diversity will be loosened. This principle is ambitious of making selection intermediaries to empower users to be a well-informed citizen and active audience.

To summarise, diversity by design is a systematic approach whereby exposure diversity is embedded into the underlying technology or the entire architecture of selection intermediaries, from the very early design stage rather than being bolted on afterwards or ignored. By implementing exposure diversity at the design stage, selection intermediaries have a legal duty to design their services to contribute to the promotion of exposure diversity. Then, it raises a crucial question on how the concept can be pragmatically implemented into technical engineering. Similar to privacy by design, selection intermediaries may have little clue of the application of diversity by design. The following subsection, therefore, illustrates the example of how the technical structure of selection intermediaries can be designed to achieve exposure diversity.

#### b. Examples of the application of diversity by design

This subsection examines the examples of the application of diversity by design on selection intermediaries. Since the concept of exposure diversity has various aspects, it leaves many open questions about what can be the grounds for designing in diversity. The classification of the exposure diversity concept discussed in Chapter 2 will be used as a basis. As discussed in Chapter 2, exposure diversity is not seen as valuable in itself but it is regarded as a means to achieve different media policy objectives (the focus here is on ‘enlighten people’ and ‘contribute to democratic debate’).<sup>167</sup> To achieve these objectives, exposure diversity can be classified into the forms of: (i) discovering the difference, (ii) exposing to diverse media outlets/speakers, (iii) facilitating comparison, and (iv) promoting serendipity. Looking at the diversity by design principles and taking this classification as a starting point, the studies from other academic fields will be provided to demonstrate how selection intermediaries could possibly be designed to

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<sup>167</sup> See Part I.2b Classification of exposure diversity, p.47-48.

promote exposure diversity. The examples of the implementation of diversity by design on selection intermediaries can be created as the following:

i. Discovering the difference

Discovering the difference is commonly seen as a fruitful and necessary condition for people to discover the truth and set their personal values and beliefs.<sup>168</sup> According to Mill, the truth emerges from the debate between different viewpoints.<sup>169</sup> This idea stresses that the possession of various information is a prerequisite for eliminating misconceptions of fact and evaluating different viewpoints to reach the truth. Also, exposure of individuals to diverse and antagonistic viewpoints is a fundamental requirement for their moral and intellectual development. This is because all of the components for creating individual growth are constituted by what information environment and the state of the world they perceive. Thus, exposure to different views is what people need in order to understand and appreciate divergent standpoints, cultures and opinions. From this perspective, the conflict between contrasting views raises awareness, tolerance and respect for difference.<sup>170</sup> Ultimately, ‘discovering the difference’ assists people in becoming well-informed citizens by enabling them to have enough materials to make informed choices.<sup>171</sup>

The design for ‘discovering the difference’ should consider diversity in the aspect of viewpoints, sources, or geographical coverage. Selection intermediaries need to present viewers with alternative or complementary content from different political or cultural backgrounds. Particularly, in the screen feature of a page, it should present the topic a user is interested as well as suggest contributions from a different perspective.

One possibility is to design screen features to promote exposure diversity. Currently, the standard comment lists used in a social media page do not well provide diverse comments since people often read only a few comments on top. Screen features of selection intermediaries can be designed in various forms. For example, in the developments of technological design, Opinion Space designs a feature to visualise user opinions onto a two-dimensional map (which is called ‘space interface’) rather than in a

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<sup>168</sup> Kari Karppinen, *Rethinking Media Pluralism* (FUP 2013) 30.

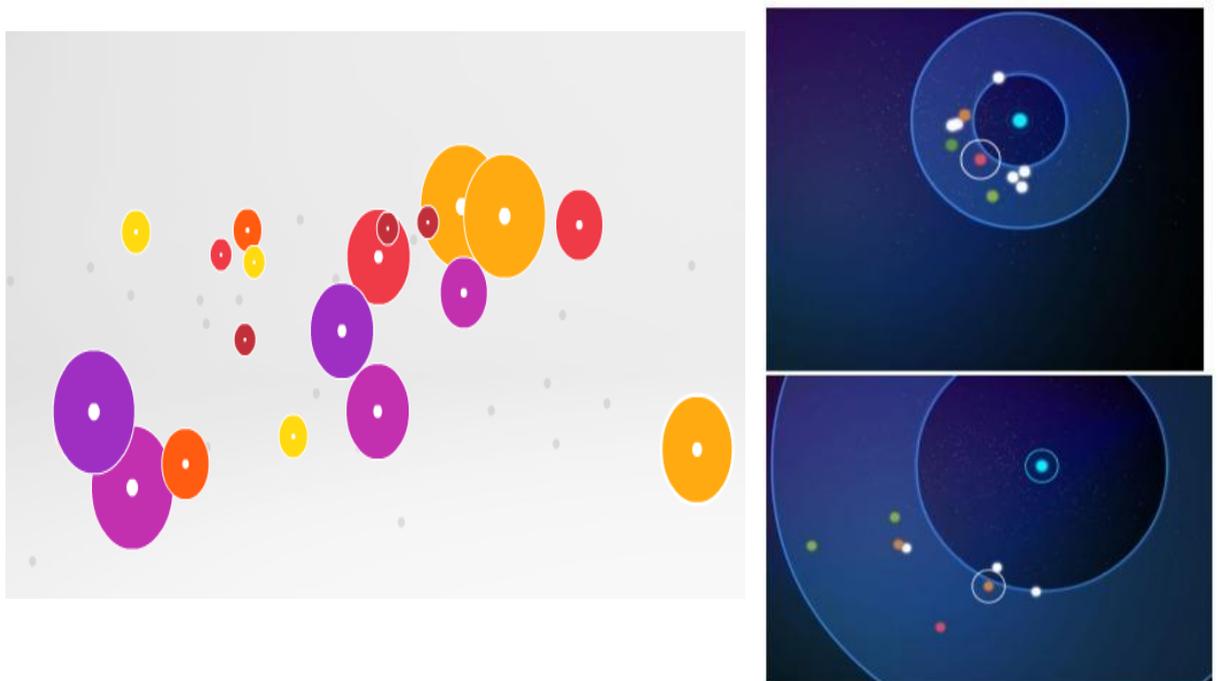
<sup>169</sup> John Stuart Mill, *On Liberty* (J W Parker and Son, 1859).

<sup>170</sup> Kris Dunn and Singh Shane, ‘Pluralistic Conditioning’ (2014) 21(1) *Democratization* 1, 4.

<sup>171</sup> See Jonathan Gilmore, ‘Expression as Realization’ (2011) 30(5) *Law and Philosophy* 517.

conventional linear comment list or a chronological list interface.<sup>172</sup> As seen in Figure 2 below, this technique effectively places all participants onto one level playing field. On the space interface, points far apart correspond to participants with very different opinions while participants with similar opinions are proximal. The size and brightness of each point are determined by a weighted average of agreement from a diversity of users rather than those sharing similar beliefs. As another example, Diversity Donut has developed ‘space interface’ further; it adds the level of circle to demonstrate the level of contrast opinions. The point near the middle of the circle represents similar view of the user’s opinion while a further away point indicates disagreement views (see Figure 2).<sup>173</sup> By comparing to a chronological list interface, navigating this space interface encourages users to better find and consider diverse comments, especially the opinions with different values from their own.<sup>174</sup>

*Figure 2: Opinion Space<sup>175</sup>(left) Diversity Donut (right)*



<sup>172</sup> Siamak Faridani et al., ‘Opinion Space’ (Proceedings of the 28th International CHI, 10-15 April 2010) 1175; see also Jeffrey Heer and danah boyd, ‘Vizster’ (Proceedings of the 2005 IEEE Symposium on Information Visualization, 23-25 October 2005) 5.

<sup>173</sup> David Wong et al., ‘The Diversity Donut’ (Proceeding of the CHI’11 Extended Abstracts, 7-12 May 2011) 1471.

<sup>174</sup> For further example see Sean Munson, ‘Designing Interfaces for Presentation of Opinion Diversity’ (Proceeding of the CHI’09 Extended Abstracts, 4-9 April 2009) 3667; Kiran Garimella, ‘Exposing Twitter Users to Contrarian News’ (International World Wide Web Conference Committee, 3-7 April 2017).

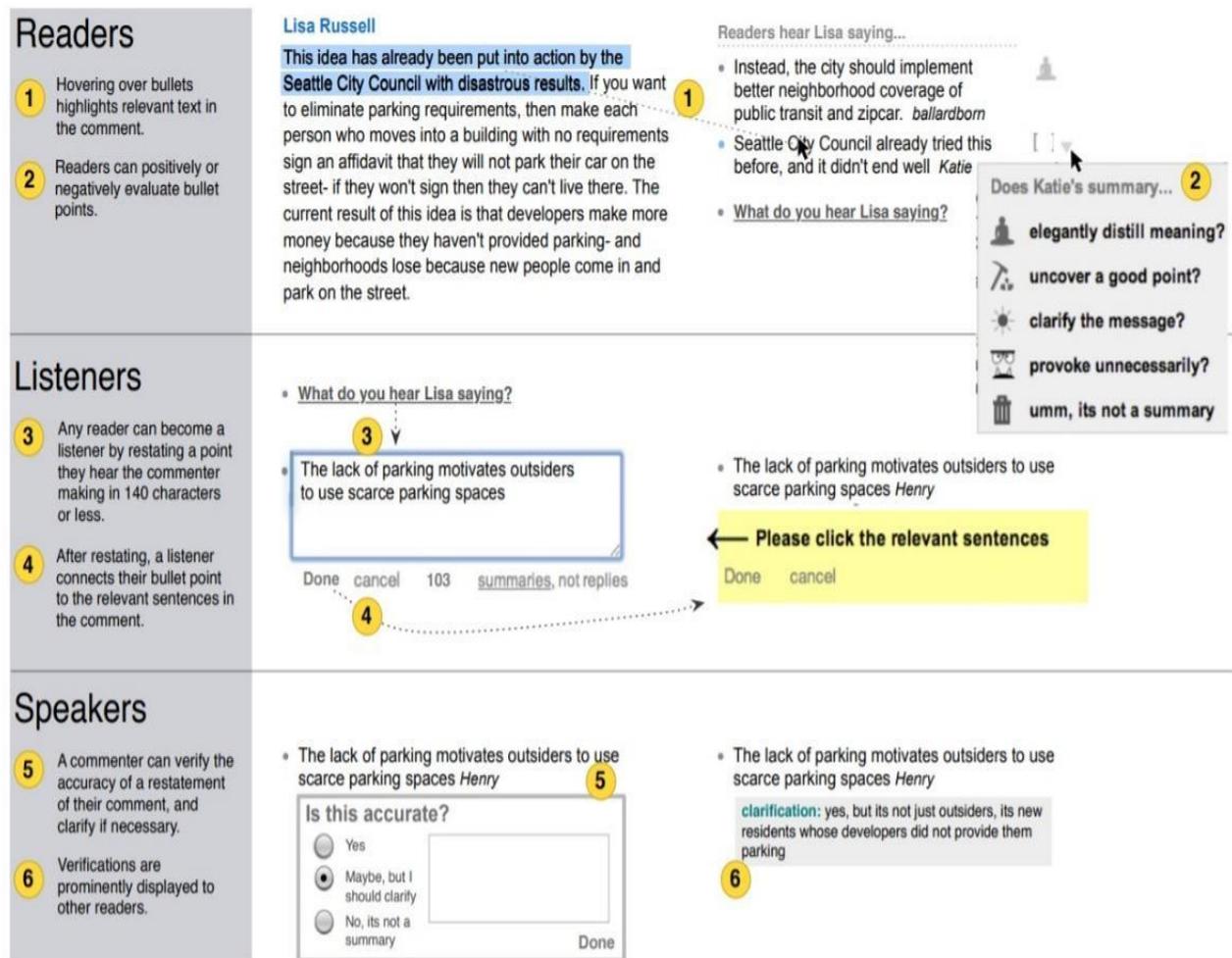
<sup>175</sup> Opinion Space <<https://opinion.berkeley.edu/>>.

In addition, one could think of a function in social media which provides people to notice different comments or opinions on a certain topic. It can be in a form of facilitating people to evaluate value or to verify the accuracy of comments. For instance, Reflect adds a 'listening box' next to every comment where other readers can add concise summary bullet points (see Figure 3).<sup>176</sup> When other readers afterwards hover over a summary bullet point, the relevant texts in the original comment that the bullet point refers to is highlighted for people to read the original comment and other listeners' interpretations. The original commenter can also respond to each bullet point whether the interpretation is accurate, somewhat accurate, or inaccurate (which is shown to future readers with a coloured +, - or !). Besides, anyone can dispute the neutrality, accuracy, and validity of any summary bullet points. This function nudges readers to listen to other users and forms a diverse discursive environment. Reflect is now enabled on, for example, WordPress plugin, Slashdot and MediaWiki extensions.

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<sup>176</sup> Travis Kriplean et al., 'REFLECT' (Computer Supported Cooperative Work (CSCW), 9-23 March 2011).

Figure 3: Mechanics of the Reflect interface<sup>177</sup>



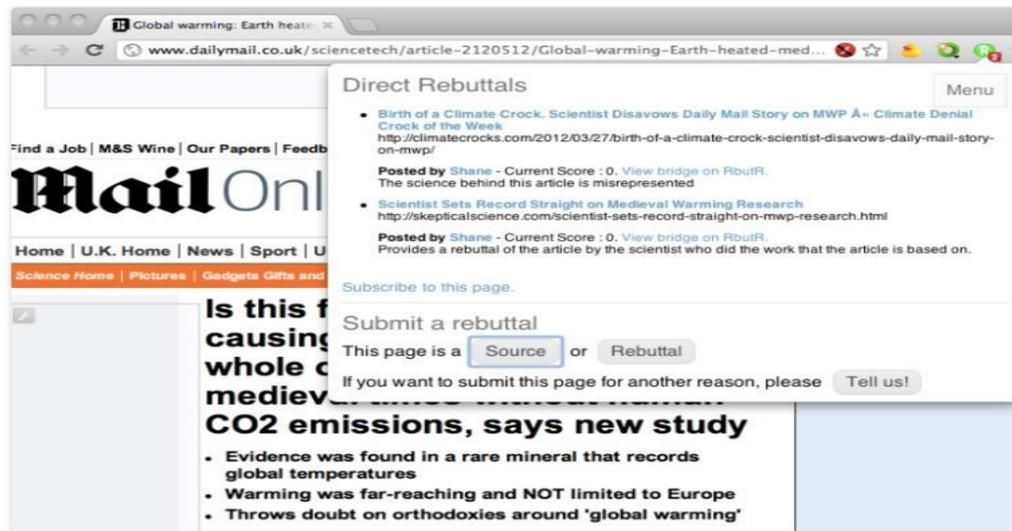
Another possibility to design a function to promote ‘discovering the difference’ is by providing links to additional commentary or discussion. It is another way to enable users to contextualise and confront with alternative or contradictory views. For example, Rbutr is a Chrome extension (and now also on a Twitter reply widget) that provides a list of links to other arguments directly rebutting the article users are reading (see Figure 4).<sup>178</sup> The content may be a direct debunking or may contain contrasting evidence. Any webpage can be rebutted, even the rebutting pages can be counter-rebutted. Also, readers can submit their own rebuttal to add to the list. Therefore, readers can follow discussions across several websites with a range of viewpoints on one subject. It gives users a comprehensive view about the strengths and weaknesses of different arguments and

<sup>177</sup> Travis Kriplean et al., ‘Is This What You Meant?’ (Proceedings of the SIGCHI CHI, 5-10 May 2012) 1559.

<sup>178</sup> Rbutr <<http://blog.rbutr.com/getting-to-know-rbutr/>>

awareness of other angles. Although Rbutr is an extension function in the browser, this technique of Rbutr can technically be applied in search engines. When presenting search results, search engines can display, together with the reading results, links to other content that discuss certain search result.

Figure 4: Rbutr<sup>179</sup>



Not only screen features and functions, selection intermediaries may develop their algorithms to produce diverse result recommendations towards a specific viewpoint. In particular, Munson presents an algorithm called Sidelines that increases the diversity of results in news and opinion aggregators.<sup>180</sup> Also, Garimella creates an algorithm tested on Twitter that bridges across people of opposing sides.<sup>181</sup>

ii. Expose to diverse media outlet/speakers

This form of diversity by design would look at a guarantee that all segments of the public (such as minority groups, underprivileged social groups, underrepresented media outlets, and cultural groups) can find themselves a space for the public attention. Central to this idea leans on democratic deliberation which emphasises participative contribution in public debate and the openness to different speakers and ideas.<sup>182</sup> A good argument can arrive from any parts of the society, especially from the challenge of the

<sup>179</sup> Tim Farley, 'RBUTR is the newest tool in the skeptic arsenal' (Skeptical Software Tools, 2 April 2012) <<https://skeptools.wordpress.com/2012/04/02/rbutr-is-the-newest-tool-in-the-skeptic-arsenal/>>

<sup>180</sup> Sean Munson et al., 'Sidelines' (Proceedings of the Third ICWSM, 17-20 May 2009).

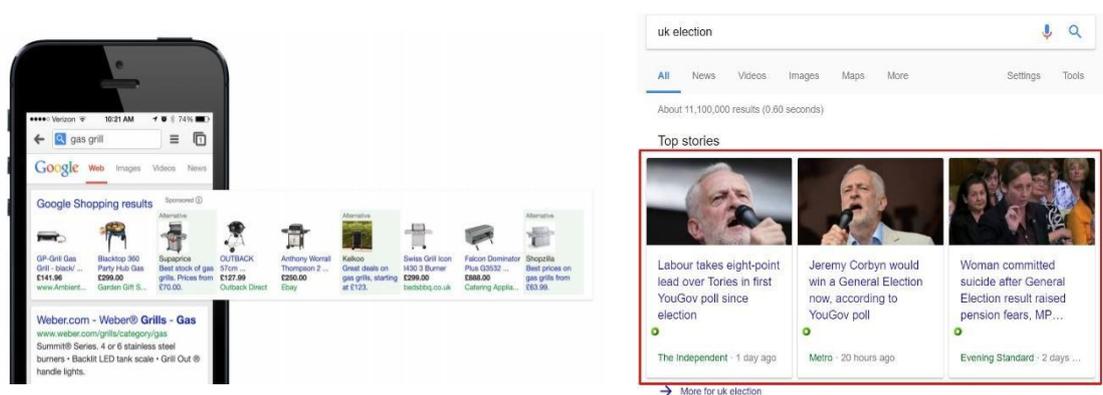
<sup>181</sup> Kiran Garimella et al., 'Reducing Controversy by Connecting Opposing Views' (Proceedings of the Tenth ACM International Conference on Web Search and Data Mining, 6-10 February 2017) 81.

<sup>182</sup> See Frederick Schauer, *Free Speech: a philosophical inquiry* (CUP, 1983).

marginal voices. Therefore, all groups should have a real share of people’s attention and no one group or individual should have been neglected or subordinated.<sup>183</sup> This can also be considered as the assurance of different interests to have equal opportunity for being concerned and influencing public discourse.<sup>184</sup> It ensures that no permanent majority or single group is a privilege to influence others. Consequently, exposure to different sources prevents a single voice to be misled as a public consensus and reduces the risk of the unchecked irresponsibility power due to the absence of clashing with an opposite group.

Selection intermediaries could provide a feature that guides people’s attention towards a wide range of sources. They could also design their presentation to give a chance or prominence to minority groups or new political parties. The design of screen features can have an important role in this context. For example, in the commitment Google proposed to the European Commission,<sup>185</sup> Google offered to display links references to three pertinent competing services close to its own services (see Figure 5). The provision is also presented in a format that makes users clearly aware of these alternatives and is visually comparable to the links to Google’s own services. Although this proposal is directly related to competition issues, this approach can also be adopted to encourage exposure of individuals to diverse outlets. It gives people a real choice between different speakers and will benefit them to choose diversely and compare content wisely.

Figure 5: Google’s proposal<sup>186</sup> (left) ‘Top Stories’ (right)



<sup>183</sup> This corresponds to theories of ‘radical pluralism’ presented by Karpinnen (see Kari Karpinnen, *Rethinking Media Pluralism*, 70-78).

<sup>184</sup> See Sandra Fredman, *Discrimination Law* (OUP, 2011).

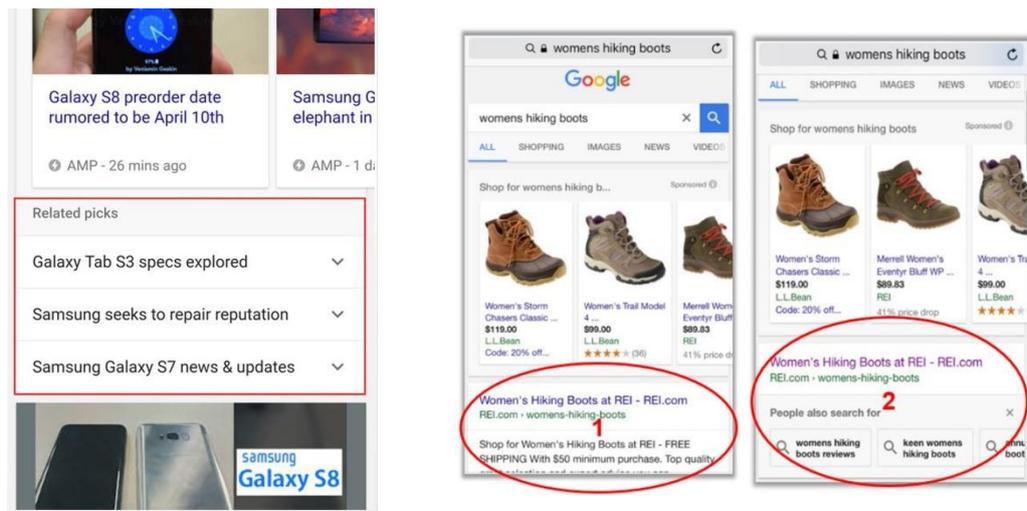
<sup>185</sup> Google, ‘Commitments in Case COMP/C-3/39.740 - Foundem and others’, (Google, 3 April 2013) < [http://ec.europa.eu/competition/antitrust/cases/dec\\_docs/39740/39740\\_8608\\_5.pdf](http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_8608_5.pdf)>

<sup>186</sup> European Commission, ‘Antitrust: Commission obtains from Google comparable display of specialised search rivals’ (MEMO/14/87, 5 February 2014).

Although the Google’s commitment was objected by the Commission, in December 2016, Google changed their search result presentation by launching ‘Top Stories’. This new feature is in a card-style set of three stories presented in horizontal (see Figure 5). ‘Top Stories’ is similar to the Google’s commitment. Google did not give the reason or motivation behind the change; however, the new design provides a better opportunity for speakers to appear to a much wider audience.

Besides, Google provides a new feature displayed under ‘Top Stories’, called ‘Related picks’ (see Figure 6). It gives users another option for expanding their search to see additional content. When users click on those related picks, it shows them more suggested top stories. In 2017, Google also launches another feature, ‘People also search for’, in mobile search results. This feature appears below organic results after users click on a website link from the organic results. It displays the related search query suggestions that users can scroll through left and right. All of these Google features encourage people to read more sources; although they are categorised by topics not groups of outlets or speakers. It is a good example that selection intermediaries can design their features to assist minority groups, marginal voices or underrepresented media outlets to be significantly more visible. Therefore, the design of screen features will aid people to be aware of the presence of other sources.

Figure 6: (left) ‘Related Picks’<sup>187</sup> (right) ‘People Also Search For’ Feature<sup>188</sup>



<sup>187</sup> <<https://twitter.com/glenngabe/status/837769648468856835>>

<sup>188</sup> Janie Jackson, ‘New Google Tests On “People Also Search For” Feature’ (PMG, 10 February 2017) <<https://www.pmg.com/blog/new-google-tests-people-also-search-feature/>>

To expose people to diverse media outlets, selection intermediaries could also develop algorithms or recommendation systems in a way that match people with different political or cultural interests. In particular, a measure might be the change of personalization algorithms to include more categories and diverse panels rather than merely encourage conversation among the like-minded. Personalization algorithm is a kind of information filtering which presents customised information based on some type of user profiles.<sup>189</sup> User profiles may include such as age, country, education, and preferences. A system can build a user profile in two ways: explicitly and implicitly. The former is a customization of information by users themselves while the latter is a determination by the system through various factors, such as data mining, browsing history, IP address, and cookies.<sup>190</sup> In general, the goal of user profiling is to collect information about the subjects in which a user is interested. However, this is not to say that personalisation per se cannot be exploited to have a positive effect on exposure diversity. As Bozdag comments:

‘We should come with design suggestions to minimize the bad effects and improve the good effects of this technology instead of trying to get rid of it all together. The question is then not whether to have personalization or not, but how to design morally good personalization technology.’<sup>191</sup>

In particular, personalisation technology can recognise people’s media consumption history and uses this information to recommend content in relation to people’s preference. Thus, it can be exploited to provide diverse sources in the issues which are in the interest of users or to suggest more new groups of speakers which users have never seen (or less likely to consume).<sup>192</sup> For instance, Zhou introduces a new algorithm, ‘heat-spreading’, designed specifically to seek out novel items and at the same

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<sup>189</sup> See Haiyan Fan and Marshall Poole, ‘What Is Personalization?’ (2006) 16(3) *Journal of Organizational Computing and Electronic Commerce* 179.

<sup>190</sup> For further discuss about personalization see e.g. Min Kyung Lee, *Designing Personalization in Technology-Based Services* (Human-Computer Interaction, Institute School of Computer Science, Carnegie Mellon University (PhD thesis) 2013)

<sup>191</sup> Engin Bozdag, ‘Bias in algorithmic filtering and personalization’ (2013) 15(3) *Ethics and Information Technology* 209, 221.

<sup>192</sup> Natali Helberger, ‘Diversity by design’ (2011) 1 *J.Inf.Pol* 441, 460 -461.

time enhancing the personalisation of user recommendations.<sup>193</sup> This hybrid algorithm allows us to simultaneously increase both accuracy and diversity of recommendations. Another example is a software designed for a recommender system proposed by Kamishima. It produces recommendations that present news from both Democrat and Republican sources if users specify themselves as neutrality towards ‘political affiliation’.<sup>194</sup> Therefore, as illustrated here, personalisation algorithms can actually be designed and used to expose diverse media outlets or speakers.

### iii. Facilitating comparison

Alternatively, diversity by design can be in the form of facilitating comparison. Its role is to improve users’ ability to weigh and compare diverse views on social or political matters for an understanding of difference. Modern democracy requires choices that truly compare between incompatible views.<sup>195</sup> Elections and the right to vote have a meaning only when there is an equal competition between the distinct political ideas presented to people. Therefore, the clash of conflict opinions and the process of comparing and weighing are an enduring feature of democratic participation and the political process.<sup>196</sup> This is basically the idea behind the marketplace of ideas concept. Under this approach, the public confrontation can be seen as the leverage and bargaining between incompatible views in order to convincingly influence the debate.<sup>197</sup> The essential preconditions are, therefore, that participants can be exposed to necessary conflict viewpoints and that different opinions are in a form allowing proper comparison.

To facilitate comparison, result recommendations presented by selection intermediaries should lead users to perceive the existence of different aspects. This is

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<sup>193</sup> Tao Zhou et al., ‘Solving the apparent diversity-accuracy dilemma of recommender systems’ (Proceedings of the National Academy of Sciences, 9 March 2010); See also Saúl Vargas and Pablo Castells, ‘Rank and Relevance in Novelty and Diversity Metrics for Recommender Systems’ (Proceedings of the fifth ACM conference on Recommender systems, 23-27 October 2011) 109; Saúl Vargas, ‘New Approaches to Diversity and Novelty in Recommender Systems’ (Conference on Future Directions in Information Access, 31 August 2011) 8; Gediminas Adomavicius and YoungOk Kwon, ‘Improving Recommendation Diversity Using Ranking-Based Techniques’ (2012) 24(5) IEEE Transactions on Knowledge and Data Engineering 896.

<sup>194</sup> Toshihiro Kamishima et al., ‘Enhancement of the Neutrality in Recommendation’ (Proceedings of the 2nd Workshop on Human Decision Making in Recommender Systems, 9 September 2012).

<sup>195</sup> Ben Bagdikian, *The Media Monopoly* (Beacon Press, 1992).

<sup>196</sup> John Rawls, *Political liberalism* (CoUP 2005) xvi; See also Norberto Bobbi, *Liberalism and democracy* (Verso, 1990) 21-24.

<sup>197</sup> See e.g. Alexander Meiklejohn, *Free Speech and Its Relation to Self-Government* (Harpel and Brothers, 1948).

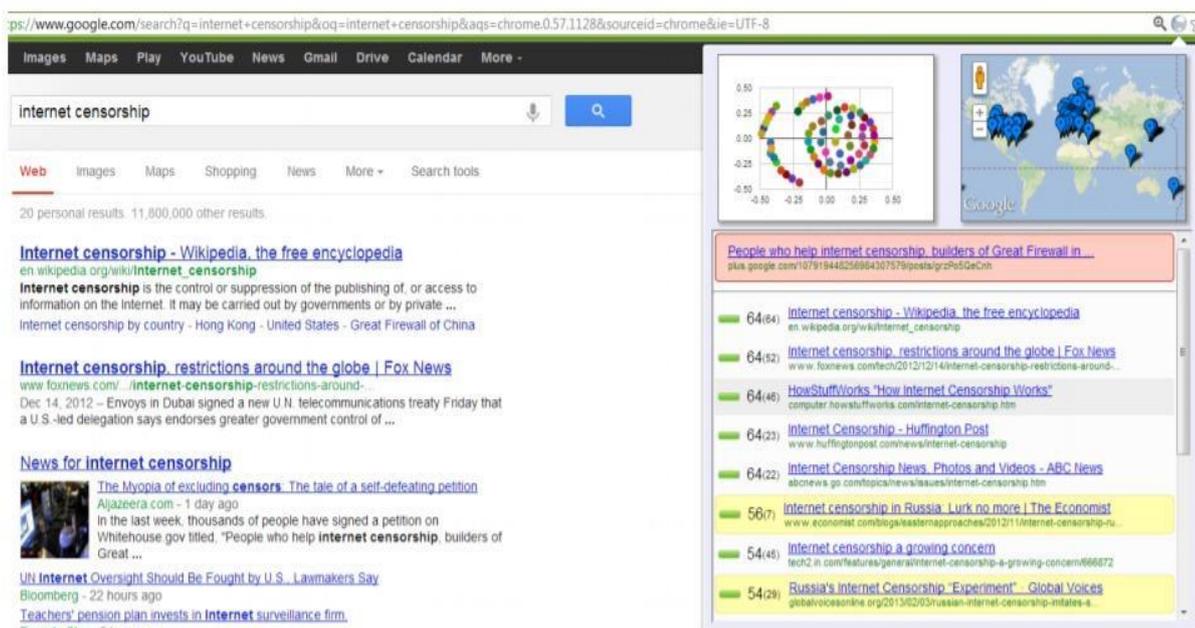
related to the design regarding data collection, distinguishing opinions and visualising the opinion clusters. Different aspects should represent in the way that each group is meaningful and the differences between them are clear. Also, different groups should be presented fairly in terms of placement and amount of allocated space. Obviously, the conventional linear list which users need to scroll down a long list has failed to get a comparative view of diverse opinions.

The provision of comparison can be in many forms and at various points of focus. For example, Bobble is a web browser extension that allows users to compare how their search results differ from the results that are returned to other users (see Figure 7).<sup>198</sup> By capturing a user's search query and reissuing it with hundreds of other worldwide users, it distributes search results worldwide that perform the same search query each time the user performs a search. It provides a variety of different points by displaying search results that only the user received in yellow and results that he misses but others have received in red. Therefore, users contemporaneously see which results are displayed on their browser but not on others, and vice versa. This technique alerts users to be aware of how their online experience is being potentially distorted by personalisation.

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<sup>198</sup> Xinyu Xing et al., 'Exposing inconsistent web search results with bobble' (Proceedings of the 15th International Conference on Passive and Active Measurement, 10-11 March 2014) 131.

Figure 7: Bobble<sup>199</sup>

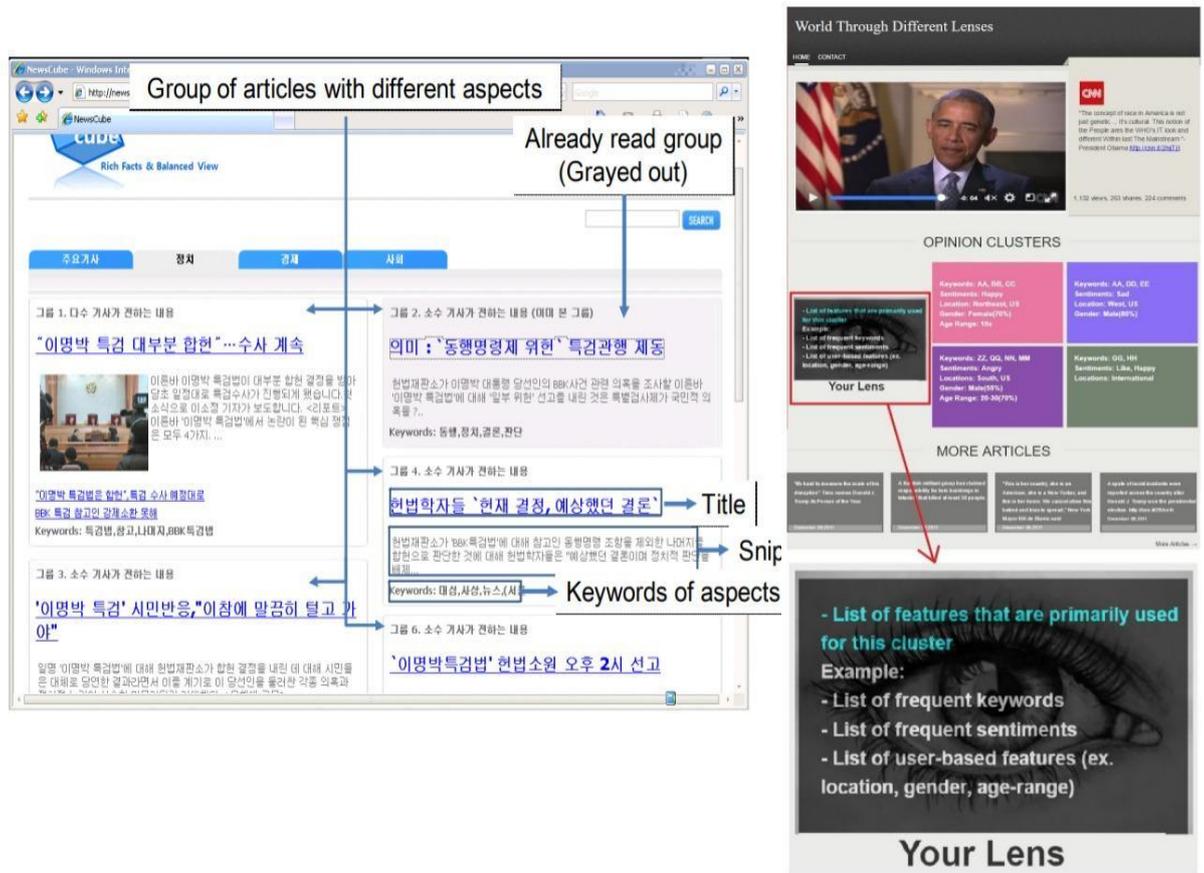


Search engines may design their algorithms and screen features to present search results in a form of clusters revealing controversial groups. For instance, Newscube is a prototype system that detects different aspects of news from various sources and automatically displays readers with multiple classified perspectives on a news event.<sup>200</sup> The selected news is grouped by the similarity of salient aspects and is presented to readers with a clustered overview of the aspects of the event. Each group is allocated with a similar amount of space and is positioned in a 2-column grid layout (see Figure 8). As such, it effectively helps readers to easily find different aspects and compare diverse biased views of the event. NewsCube is different from other search engines which simply list search results in an arbitrary order.

<sup>199</sup> <[https://www.caida.org/workshops/isma/1302/slides/aims1302\\_nfeamster.pdf](https://www.caida.org/workshops/isma/1302/slides/aims1302_nfeamster.pdf)>

<sup>200</sup> Ibid.

Figure 8: Newscube interface<sup>201</sup>(left) Intelligent Interface (right)



Similarly, Jin Do proposes the ‘intelligent interface’ prototype (which can be applied on Facebook) that automatically clusters and visualises diverse opinions about a controversial topic.<sup>202</sup> It presents user’s own opinion on the left and at the same time displays other four clusters on the right which are different from the user’s stance (see Figure 8). Each cluster shows keywords that summarise the associated comments so that the user can quickly guess the overall opinion in each cluster. Each cluster is also clickable and will lead to the actual comments that are associated with that cluster.

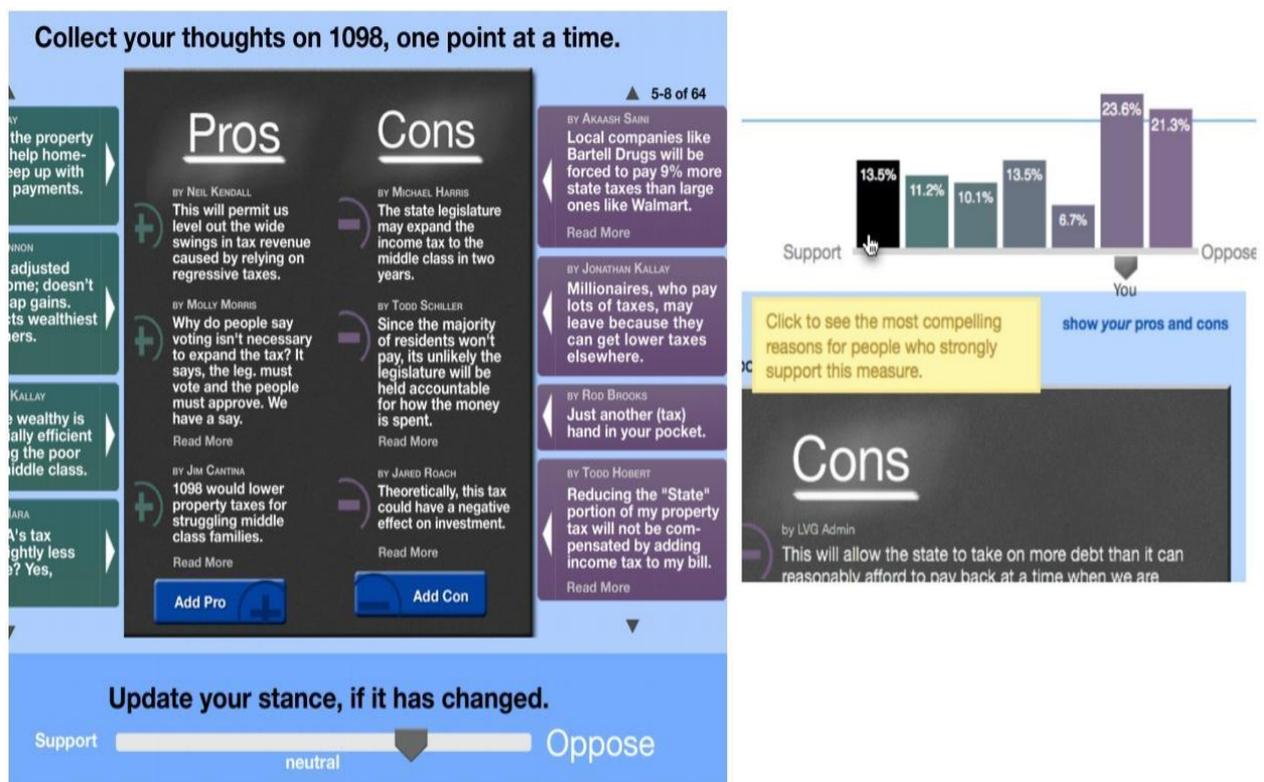
‘Facilitating comparison’ can focus on people’s stances and reaction in a debate. Social media may design a function to reflect the consideration of tradeoffs between different perspectives on a certain topic. For example, ConsiderIt is an interface which enables users to adopt the pro/con lists others have contributed (e.g. create, adopt, and

<sup>201</sup> Souneil Park et al., ‘NewsCube’ (Proceedings of the SIGCHI CHI, 4-9 April 2009) 443.

<sup>202</sup> Hyo Jin Do, ‘Intelligent Interface for Seeing the World Through Different Lenses’ (Proceedings of the 22nd IUI, 13-16 March 2017) 217.

share) in order to expose the salient points themselves (see Figure 9).<sup>203</sup> This enables users to gain a new insight from the aggregated sentiments of different views and to check the correctness of the sentiments from a similar stance. Users can rank their view into a group of: full opposers, firm opposers, slight opposers, neutrals, slight supporters, firm supporters and full supporters. Also, they can drill down into the most salient points of each different group by clicking on the graph bars. The power of pro/con lists is that it nudges people toward the thought about both sides of a decision.

Figure 9: ConsiderIt<sup>204</sup>



#### iv. Promoting serendipity

Serendipity, the most closely related concept to an unexpected encounter, is the ability to discover unknown content by chance. The concerns about serendipity significantly arise because personalised algorithms facilitate barriers for the awareness of

<sup>203</sup> Ibid.; see e.g. Mingkun Gao et al., 'An Intelligent Interface for Organizing Online Opinions on Controversial Topics' (Proceedings of the 22nd IUI, 13-16 March 2017) 119 (Gao designs an interface that allows people to more easily visualise and better understand reactions and emotions from different stances.)

<sup>204</sup> Travis Kriplean et al., 'Supporting reflective public thought with ConsiderIt' (Proceedings of the ACM on CSCW, 11-12 February 2012) 265.

unfamiliar, surprising, and challenging content. As Ofcom states that ‘...when using the internet, the likelihood of having their views challenged or their knowledge expanded by chance was minimal’.<sup>205</sup> Therefore, some scholars suggest that serendipity is a new goalpost for providing diversity experience on the Internet.<sup>206</sup> The over-personalization problem can be solved by exposing individuals to materials and topics that they would not have chosen in advance. An unplanned or unanticipated encounter of new topics is essential for breaking the established routines and can spark an interest in investigating the matter further. Accordingly, diversity by design should provide the chance for people to encounter unpredictable viewpoints to wake individual’s curiosity.

There are already some examples of the technical designs applying in social media that encourage serendipitous encounters. To illustrate, Poli is an interface designed to integrate a variety of social media and to take into account the elements of chance encounters.<sup>207</sup> The main page of Poli exposes users to diverse perspectives from multiple social media (see Figure 10). It aggregates information from multiple sources and from a variety of perspectives, and randomly presents this information to users in a serendipitous fashion. This prototype interface creates an environment that exposes users to serendipitous diverse political information.

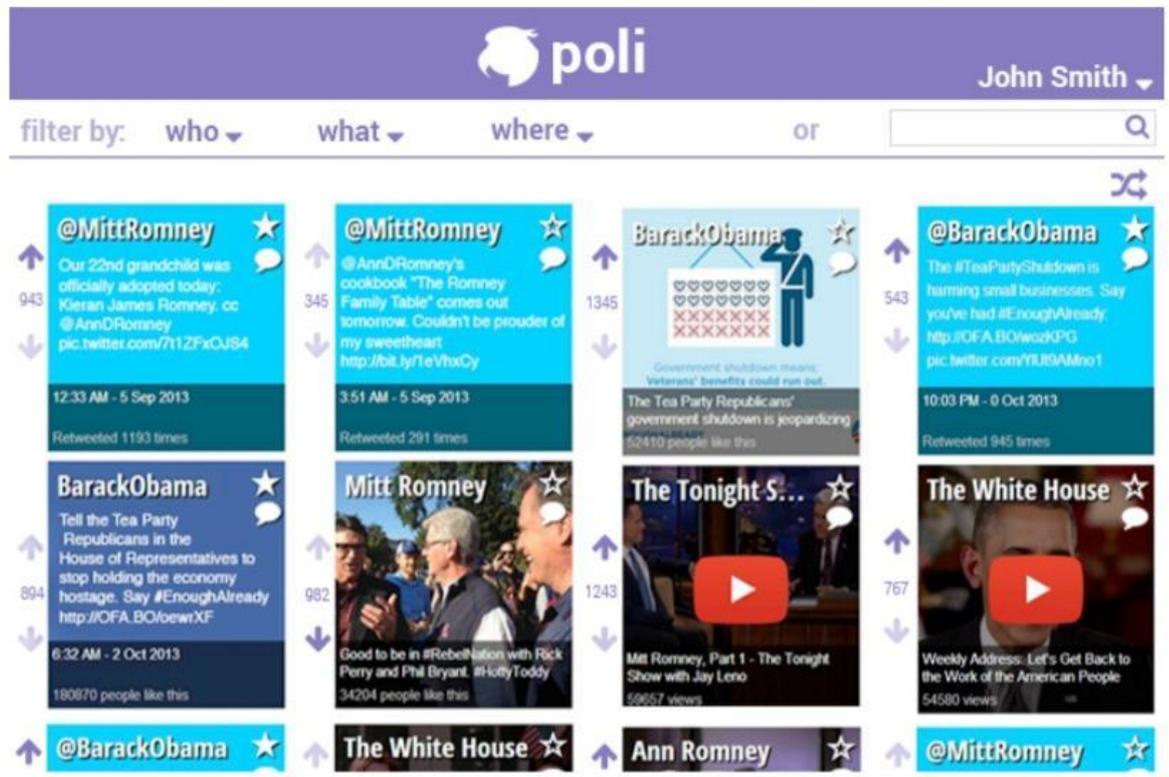
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<sup>205</sup> Ofcom, ‘Ofcom’s Second Public Service Broadcasting Review’ (Ofcom, 25 September 2008) para 3.101.

<sup>206</sup> See e.g. Laura Dantonio, *Reciprocity and Investment* (Faculty of Life Sciences, University College London (master’s thesis) 2010); Paul André et al., ‘Discovery is never by chance’ (Proceedings of the Seventh ACM Conference on Creativity and cognition, 26-30 October 2009) 305.

<sup>207</sup> Bryan Semaan et al., ‘Designing Political Deliberation Environments to Support Interactions in the Public Sphere’ (Proceedings of the 33rd Annual ACM CHI, 18-23 April 2015) 3167.

Figure 10: Poli<sup>208</sup>



Also, there are some concerns that serendipity is more than just chance.<sup>209</sup> For a surprising encounter to spark people’s incentive to investigate further and to not cause overwhelming information, it needs to resonate with familiar knowledge, interest, or experience of the user.<sup>210</sup> On the basis of these insights, Serendip-o-matic, for example, extracts keywords and returns a surprising result which reflects user’s interests. It is a project of one-week time frame organised by the One Week | One Tool.<sup>211</sup> Unlike conventional search tools, Serendip-o-matic is a serendipity engine.<sup>212</sup> When clicking ‘Make some magic!’, it takes in any text (such as an article, song lyrics, or a bibliography) and then delivers a series of a similar topic that hopefully broadens user’s horizons. Its database derives from the vast online collections, such as Europeana and Flickr. Its special algorithm is designed for inspiration and being suggestive to discover materials users

<sup>208</sup> Ibid.

<sup>209</sup> See e.g. Klaus Schönbach, ‘The Own in the Foreign’ (2007) 29(2) Media, Culture and Society 344.

<sup>210</sup> See Jose Campos and A. Dias de Figueirdo, ‘Programming for Serendipity’ (AAI Technical Report, 2002).

<sup>211</sup> <<http://oneweekonetool.org/>>

<sup>212</sup> <<http://serendip-o-matic.com/>>

never knew existed. Therefore, the tool supports accidental discoveries and some results are more serendipitous than other search engines.

One could think of a function or widget in social media that provides serendipity, for example, a sidebar of a screen feature which displays articles at random pertaining to a keyword. There may be an option which displays less popular or not mainstream lists (such as ‘less viewed’ feature) next to the content selected by users. Additionally, algorithms may be designed to look at users’ search history and present sources users do not normally pursue (blending with normal sources). The different way of analysing data and aggregating content allows a random of different types of content to be exposed to people.<sup>213</sup> This can be seen from Twitter which is considered as a serendipitous platform (especially when compared to Google and Facebook).<sup>214</sup> Also, many organisations create bots to be used on Twitter to provide random tweets onto user’s feed. For example, the Digital Public Library of America launches @DPLAbot, a Twitter bot that tweets links to random items located in its collections (see Figure 11). It works by first grabbing a random noun, searching in the database and sharing the first result it found. By using this type of bots, selection intermediaries can expose serendipitous result recommendations to users. Therefore, it depends on the design of the system in a way that presents users with surprising and random information.

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<sup>213</sup> For the examples of research in algorithms designed to promote serendipity see Leo Iaquina et al., ‘Introducing Serendipity in a Content-based Recommender System’ (Conference on Hybrid Intelligent Systems, 10-12 September 2008) 168; Maximilian Jenders et al., ‘A Serendipity Model for News Recommendation’ in Steffen Hölldobler et al. (eds.), *Advances in Artificial Intelligence* (Springer 2015) 111; Qiuxia Lu et al., ‘Serendipitous Personalized Ranking for Top-N Recommendation’ (International Joint Conferences on Web Intelligence and Intelligent Agent Technology, 4-7 December 2012) 258; Udeep Tandukar and Julita Vassileva, ‘Ensuring Relevant and Serendipitous Information Flow in Decentralized Online Social Network’ in Allan Ramsay and Gennady Agre (eds.), *Artificial Intelligence* (Springer 2012) 79; Christine Bauer and Markus Schedl, ‘Introducing Surprise and Opposition by Design in Recommender Systems’ (Conference on User Modeling, Adaptation and Personalization, 9-12 July 2017) 350; Denis Kotkov et al., ‘A Serendipity-Oriented Greedy Algorithm for Recommendations’ (International Conference on Web Information Systems and Technologies, 25-27 April 2017) 32.

<sup>214</sup> Liam Andrew, ‘I’m feeling lucky’ (NiemanLab, 16 July 2014) <<http://www.niemanlab.org/2014/07/im-feeling-lucky-can-algorithms-better-engineer-serendipity-in-research-or-in-journalism/>>

Figure 11: @DPLAbot<sup>215</sup>



In conclusion, this section has illustrated a number of ways that selection intermediaries can design their service in order to encourage exposure diversity. Depending on the underlying conception of exposure diversity, technological design highlights the different aspects for nudging people towards a more valuable and diverse choice. Also, any implementations of diversity by design need to be supported by empirical studies and multidisciplinary areas which are a combination of technical, social, behavioural, and communications sciences. The ideas presented here are a starting point that could help framing future strategies to reach the exposure diversity goal.

##### 5. Further issues about the application of diversity by design

The last section proposes some ideas and examples of how a regulatory framework concerning diversity by design can be implemented. For example, who should have the role to decide the standards of diversity by design; what is the process of assessment; what forms or standards should it be; should there be any sanctions; and should every selection intermediary have the same weight of duty? All of these issues have profound and in-depth details to consider. Nevertheless, it is beyond the scope of this thesis to

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<sup>215</sup> <<https://dp.la/apps/12>>

provide a clear framework to regulate selection intermediaries in any specific jurisdictions. The conceptions and suggestions in this section are starting ideas which can be a basis for a further research.

a. Standards Committee

The aspect of exposure diversity and the pragmatic implementation of technical design have various details so it may not be possible to enact a specific legal provision of how technology must be particularly designed. Therefore, an option is to establish a body as a Standards Committee ('the Committee') in order to set norms and practical guidelines in the application of diversity by design. The Committee should be an independent regulatory body. By taking the UK and the EU as examples, the UK, the Committee should be Ofcom (particularly, the sub advisory committee)<sup>216</sup>; while in the EU, the members of the Committee should be comprised of representatives of independent regulators in each Member State (e.g. the Contact Committee in the current AVMSD<sup>217</sup>, or the European Regulators Group for Audiovisual Media Services)<sup>218</sup>.

The creation of standards of diversity by design can broadly be divided into the development of two tasks: dealing with the assessment of exposure diversity and setting the standards of technical application. To deal with exposure diversity issues, the Committee can be a body to identify which aspects of exposure diversity should be concerned; e.g. minority voices, different political aspect, or serendipitous encounter. Also, in what form of design the value of exposure diversity will be presented. It has to set an indicator to measure exposure diversity in a certain technical design, e.g. vertical/horizontal exposure diversity or internal/external exposure diversity.<sup>219</sup> To develop the standards, the Committee has to conduct consultations with the stakeholders (e.g. scholars, business entities, and people) and give them reasonable opportunity to participate and give comments. Therefore, the documents it produces should have a legal binding.

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<sup>216</sup> Within Ofcom, there are a number of committees such as the Content Sanctions Committee, the Fairness Committee and the Elections Committee. There are also a number of advisory committees required by section 20 and 21 of CA 2003.

<sup>217</sup> Article 23a. of AVMSD.

<sup>218</sup> See a new legislative proposal amending the AVMSD.

<sup>219</sup> See Chapter 2 Part I.2b.

To set the standards of technical application of diversity by design, the Committee should provide participative space for the association of representatives of selection intermediaries. In other words, a group of selection intermediaries may exert control over their own behaviour through the code of conduct. The code of conduct can set out the standards of any aspects of technological design in relation to a particular service. For instance, it can encourage how an interface should apply in practical terms to promote exposure diversity. This form of cooperation has many advantages. It effectively formulates a higher level of understanding in practice due to technical expertise and special knowledge. Accordingly, it could be considered as a reasonable obligation and it would produce voluntary compliance than externally imposed regimes of control. Also, it is possible to adapt or change the standards in a flexible and smooth manner because the code of conduct acts relatively informally and tend to gain the trust of the regulated group.

There are various degrees of cooperation between the Committee and private sector for setting the technical standards. For instance, the Committee may empower the private association to draw up a code of practice as long as it does not conflict with the indicators or value of exposure diversity. The private association is responsible for regulating their operations while the Committee retains overall sign-off on major changes to the code.<sup>220</sup> Another way of cooperation is that the Committee contributes a code of conduct by the recommendation of the private association. In this case, once draft codes have been prepared by the private association, they must be submitted to the Committee. The Committee then gives proposed amendments and approves the code. Alternatively, the Committee and the private association may set a joint commission to finalise a draft code. On the other hand, the code of conduct may be applied by the private sector but the Committee is not bound to approve the code.<sup>221</sup> In such case, the Committee must provide an opinion on whether the draft code complies with its standards regarding exposure diversity.

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<sup>220</sup> See, for example, the model of The Broadcast Committee of Advertising Practice (BCAP). BCAP is responsible for writing and maintaining the UK Code of Broadcast Advertising, but Ofcom still has overall legal responsibility to maintain standards in broadcast advertising.

<sup>221</sup> See, for example, the model of the British Board of Film Classification (BBFC). BBFC began as a voluntary body to provide some guidance to local authorities. The local authorities may rely on the decisions of the BBFC in this regard.

The standards of diversity by design can be in a form of guidelines, recommendations, or advise for supervisory regulators on specific issues.<sup>222</sup> For example, the Committee may issue guidelines on the identification and the assessment of risk and on the means of mitigating risk to exposure diversity. These forms of opinion do not have any specific legal status (soft law), unlike the standards and the approved codes of conduct. However, in practical term, these will be regarded as persuasive and will be a very powerful reference for regulators to apply a degree of discretionary judgement.

b. The assessment of diversity by design

Another major challenge is how to assess diversity by design. Due to complexity of exposure diversity, there is no general consensus on the appropriate method for measuring exposure diversity at the present.<sup>223</sup> A good starting point is the MPM. It is a tool designed to identify potential risks to media pluralism in the Member States of the EU. The core characteristic of the MPM is a risk-based approach: in other words, it provides a tool for diagnosis, not therapy. The instrument is designed to flag up structural conditions that carry the threats and potential problems of media pluralism. It aims for quantitative and objective analysis and is compatible with the varying normative, culture and economic approaches. Its indicators and measurements provide a helpful information in a systematic and in-depth analytical way which addresses different aspects in which media pluralism is settled.<sup>224</sup>

In 2016, the MPM included a set of 20 indicators relating 4 different areas (basic protection, market plurality, political independence and social inclusiveness) and still covers an aspect of the legal, economic and socio-political area.<sup>225</sup> The MPM measures do not only indicate the area of supply and distribution, but also includes indicators for

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<sup>222</sup> Guidelines may intend to be more discursive and general. Recommendations are more specific and prescriptive. Best practices are more practical conduct.

<sup>223</sup> For examples of scholar's proposal see James Webster, 'Diversity of Exposure' in Philip Napoli (ed.), *Media Diversity and Localism* (LEA 2007) 309; Philip Napoli, 'Deconstructing the Diversity Principle' (1999) 49(4) J.Com 7; Philip Napoli, 'Rethinking Program Diversity Assessment' (1997) 10(4) Journal of Media Economics 59; Steven Wildman, 'Indexing Diversity' in Philip Napoli (ed.), *Media Diversity and Localism* (LEA 2007) 151; Natascha Just, 'Measuring Media Concentration and Diversity' (2009) 31(1) Media, Culture and Society 97.

<sup>224</sup> For further discussion of MPM see Peggy Valcke et al., 'The European Media Pluralism Monitor' (2010) 2(1) J.M.L 85; Peggy Valcke, 'A European Risk Barometer for Media Pluralism' (2011) 1 J.Inf.Pol 185.

<sup>225</sup> Elda Brogi, 'Monitoring media pluralism in Europe' (Centre for Media Pluralism and Media Freedom, 2016).

exposure diversity.<sup>226</sup> The MPM points towards the importance of actual exposure and of creating the conditions that the audience can be exposed to media content. As the MPM address:

‘the abilities and skills of citizens that allow them to access and actually consume or actively use media, taking into account the notion of accessibility to the media by all segments of society and looking at issues such as media literacy and digital skills, and the availability of subtitling and audio-description services, etc.’<sup>227</sup>

Regarding the conduct of risk assessment of exposure diversity, the MPM acknowledges two aspects of investigation: (i) measuring actual exposure and (ii) identifying possible obstacles to exposure diversity. In the aspect of actual exposure, it suggests to look at the ‘availability (in the sense of willingness or initiative) and ability (meaning skills) to access, critically assess, consume or actively make use of media by extracting, analysing and/or adhering to particular political beliefs and opinions being propagated through the media’.<sup>228</sup> To identifying possible obstacles to exposure diversity, the MPM pays attention to the problem of audience polarisation by encompassing a broad notion of political, cultural and geographical aspects. For example, there are indicators related to the assessment of: ‘insufficient skills or financial means to make optimal use of supply diversity’ and ‘actual consumption and participation of users themselves to the media process and public opinion’. Therefore, the assessment of diversity by design can adopt exposure diversity indicators regarding two aspects i.e. actual exposure and possible obstacles to exposure diversity in order to better understand the threats to exposure diversity. The MPM eventually will be an assistant to the Standards Committee to plan relevant standards or necessary measures.

### c. More trust more duty

An important question in media law is regarding media power of selection intermediaries. Every search engine and social media has the power to influence diversity

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<sup>226</sup> The MPM defines media plurality in the aspect of use as ‘citizen’s abilities and skills to access and actually consume or actively use media; hence, this area includes the notion of accessibility of the media by all segments of society and looks at issues such as media literacy and digital skills, availability of subtitling and audio-description services’. (see European Commission, ‘Independent Study on Indicators for Media Pluralism in the Member States’ (Preliminary Final Report, April 2009))

<sup>227</sup> Ibid., 11.

<sup>228</sup> Ibid 43-44.

of viewpoints presented to people. Consequently, any approaches of diversity by design are applied to every selection intermediary, not merely applied to big intermediaries such as Google and Facebook. However, it does not mean that every selection intermediaries have to equally comply with the standards of diversity by design. Since the big ones such as Google and Facebook tend to have more influence on what people know and consider to be important, they should have the higher burden or special duty to implement diversity by design. This notion is similar to competition law which imposes special obligation in exercising anti-competitive conduct on undertaking with market power or dominant position.

There are two reasons for imposing a higher standard on big selection intermediaries. First, the number of people using selection intermediaries can also express the degree of trust the public and a person have over them. With these positions, they hold a considerable power to impact people's public sphere: both personal and political activities. Thus, to prevent a concentration of power, the responsibility and certain standard have remained necessary to control over undue powerful entities.<sup>229</sup> Another reason is fairness. Requiring a small firm to comply with the same standard as a big company can be considered as an excessive burden due to their shortage of financial investment. On the other hand, setting an average standard for every selection intermediaries would loosen the exposure diversity goal since the big entities have the capacity to lift their practices to a higher improvement.

Measurement of media power can be considered from various perspectives: both supply side from providers and demand side from audiences. The most common form of supply side indicator is market share. It can also be determined by revenue. While the measurement from the supply side benefits in being straightforward to weigh each company's power and size in a market, its flaw is a lack of the picture of their real influence reaching to the audience. Conversely, consumer side approach can represent media impact over public opinion, but it is trickier to precisely assess media plurality. This requires a metrical summary of many aspects such as usage, trust, engagement and

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<sup>229</sup> With regard to concentration of media power, various criteria of media ownership rules have been adopted: for example, limiting the number of licenses, imposing ceilings of audience shares.

influence. The demand side indicators are such as main source reference<sup>230</sup>, audience reach<sup>231</sup>, and time-exposure share<sup>232</sup>.

The special duty to implement a higher standard can be in the form of using higher technology in their design of services. It may be obliged to provide or design the amount of functions, algorithms or screen features supporting exposure diversity more than a small company. Alternatively, the big intermediaries may be required to concern several values or goals of exposure diversity. Besides, the special duty may include the obligation to submit a report to the supervisory regulators in a certain period of time or to provide an extra assessment of diversity risk in their designs. The Committee should publish media power thresholds that specify the standard of special obligation in a large range of situations. The list may not be exhaustive and may be in the form of guidelines, recommendation or best practices.

#### d. Diversity impact assessments and certification

The standard of diversity by design can be strengthened through diversity impact assessments (DIAs) and certification. The DIAs borrowed the idea of privacy impact assessments (PIAs) from data protection law.<sup>233</sup> It is a process which assists selection intermediaries in identifying and minimising the risks and disadvantages of new projects on exposure diversity. In other words, the fundamental aim of the DIAs is to weigh the need and potential benefit of technological innovation against the impact on filter bubble phenomenon. The DIAs have to be carried when a new system or an initiative interface is introduced. Addressing the envisaged impact of the operations at the point the system is designed will often be simpler and less costly. Also, once the operation has commenced, selection intermediaries must carry out a review to assess whether their operations are

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<sup>230</sup> Main source reference specifies the media provider that audience considers to be their main source. This approach assesses influence from subjective aspect. See Ofcom, 'News Consumption in the UK' (Ofcom, 2012).

<sup>231</sup> Audience reach can be defined as the percentage of the total audience which is exposed to a specific news provider. It shows the amount of audience that each provider reaches to. See Ofcom, 'Report on public interest test on the proposed acquisition of British Sky Broadcasting Group plc by News Corporation' (31 December 2010).

<sup>232</sup> Time-exposure base directly analyzes individual audience spending time consuming content across different providers. It shows the overview of each provider's influent weight in the average individual's public sphere.

<sup>233</sup> Article 27 of GDPR; PIAs were initially developed outside the EU. The UK Information Commissioner was the first supervisory authority in the EU to adopt the use of PIAs. In the UK the use of PIAs has been mandatory for Government departments and widely used by private sector for a number of years.

performed in accordance with the impact assessments and the standards.<sup>234</sup> Consequently, the DIAs will help to ensure that potential problems are identified at an early stage.

Certification can be used as a method of demonstrating the compliance with the standards of diversity by design. This mechanism has been a gradual development in many areas of regulation and will be an important strategy going forward in the future. Possession of certification is a sign that selection intermediaries meet the requirements or appropriate standards. Those who obtain a certification find evidential value in being able to display an assurance of seriously addressing on appliance issues. Also, holding certification may offer informal additional protection to selection intermediaries. Supervisory regulators may give a presumption of compliance but do not restrict the powers of the supervisory regulators and the rights of individuals to raise a complaint to the court. Certification, therefore, becomes a general obligation for selection intermediaries to gain trust from users.

The DIAs and Certification can be run by the Standards Committee, supervisory regulators, representatives of selection intermediaries, or private third parties. It can be a cooperation between these stakeholders to set independent monitoring trustees. In particular, the requirements for the monitoring trustees and the standards for impact assessment or obtain certification may be set by the Committee. The representative association of selection intermediaries may submit a list of candidates to be appointed as the monitoring trustees to the supervisory regulators for accreditation. Candidates of the monitoring trustees may come from private third parties who have experience or is familiar with the industries and is independent of the influence or interest of selection intermediaries. The independent monitoring trustees must fulfil these criteria and be accredited by the supervisory regulators.<sup>235</sup>

#### e. Supervisory regulators and enforcement system

The final issue about the regulatory system is about regulators and enforcement. For the standards of diversity by design to be truly concerned and implemented, there can

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<sup>234</sup> When appropriate and possible, selection intermediaries should also seek the views of users.

<sup>235</sup> The United Kingdom Accreditation Service (UKAS) states that ‘accreditation is increasingly being recognised as a valuable tool across a wide range of Government policy areas including better regulation, good governance, fair markets and public confidence. It is already being used by Government as an effective market-led tool for delivering policy more efficiently and to help deliver on its obligations in areas as diverse as healthcare, food production, energy supply, climate change and personal safety’. (see <<https://www.ukas.com/about/the-benefits/>>)

be an organisation enforcing obligations and imposing penalties when there is an infringement of the standards. The regulators may be the Standards Committee itself or a distinct organisation: but it should be an independent regulatory body. For example, in the UK, supervisory regulators should be Ofcom. In case of the EU, the supervisory regulators can be the European Commission or the Audiovisual Regulators which will be set out in a new proposed AVMSD.<sup>236</sup> Also, the regulation and enforcement may be in the form of co-regulation between the supervisory regulators and the representative association of selection intermediaries. For instance, private association may be able to exercise regulatory power whereas the supervisory regulators retain the right to change a final decision or hold exclusive power to impose a legal sanction.<sup>237</sup>

The core responsibilities of the supervisory regulators are investigative fact-finding, taking action against infringements of the standards, imposing penalties, and initiating policy. In particular, in cases when selection intermediaries intend to adopt new operations or change their systems, selection intermediaries may submit the report of changing operation to the supervisory regulators. The regulators may make opinions whether the operation has particular concerns or is performed in accordance with the standard. Besides, the regulators have the power to request all necessary information and to conduct inspections of business. They may allow a certain period of times for selection intermediaries to submit a report or assessment of diversity risk.

Where the regulators find a breach of the standards, they have the power to order selection intermediaries to cease the conduct and/or impose a fine. They may also order selection intermediaries to adopt positive measures in order to resolve an infringement. The decision of the regulators can be appealed to the court. The court can review the legality of decisions and has the power to alter the decision and the amount of fine that has been imposed.

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<sup>236</sup> See a new legislative proposal amending the AVMSD.

<sup>237</sup> See, for example, the model of the Advertising Standards Authority (ASA) and BBFC. The ASA is responsible on a day-to-day basis for enforcing broadcast advertising regulatory code but certain obligations remain with Ofcom. While the ASA considers there is requiring a sanction, it has to refer broadcasters to Ofcom. Cinema films required BBFC certification as a prerequisite to its showing. The final decision, however, remains with the local authorities, which means that different views may be taken. These council may prohibit film that have BBFC approval or permit films that have been refused certification. They may also alter the BBFC age classification.

However, before the start of a formal investigation process, the supervisory regulators may negotiate a settlement with selection intermediaries to make legally-binding commitments of behavioural remedies. In that case, the regulators may adopt a proportionate remedy and decide to bring the investigation to an end without making a finding as to whether there has been an infringement of the standards. This process is derived from Article 9 of the EU Antitrust Regulation (EC) No 1/2003. It enables a rapid solution of appropriate cases. Also, the regulators may reopen the proceedings if, for example, selection intermediaries' future behaviours are contrary to their commitments.

f. Looking forward to the impact of diversity by design

The implementation of diversity by design in legal obligation will nudge the relevant stakeholders (such as policymakers, the private sectors and scholars) to develop a practical guidance and technology in a way towards the exposure diversity goal. This will be similar to the impact of data protection by design mentioned above. Data protection by design is a clear example of an interaction between legal force and technology development. By embedding technological design into law (although legal provisions may be a broad and open standard), the relevant stakeholders will eventually develop technical standards for a practical application.

At present, there are a number of research relating to the concerns about exposure diversity in other academic fields.<sup>238</sup> These research are not only the study in technology sciences as illustrated in Part 4 of this chapter but also the studies in multidisciplinary areas such as social, behavioural, political, media and communications sciences. Depending on the underlying concerns of exposure diversity, these studies examine the different causes, effects and related factors of exposure diversity. Therefore, the imposition of diversity by design in the regulatory system will open the area for this knowledge from other academic fields to assist lawmakers and policymakers in framing future diversity by design strategies to reach the exposure diversity goal.

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<sup>238</sup> See, for example, Frederik Zuiderveen Borgesius et al., 'Should we worry about filter bubbles?' (2016) 5(1) *Internet Policy Review*; Seth Flaxman, Sharad Goel and Justin Rao, 'Filter Bubbles, Echo Chambers, and Online News Consumption' (2016) 80(1) *POQ* 298; Augusto Valeriani and Cristian Vaccari, 'Accidental exposure to politics on social media as online participation equalizer in Germany, Italy, and the United Kingdom' (2016) 18(9) *NMC* 1857; Michael Chan and Francis Lee, 'Selective exposure and agenda setting' (2014) 24(4) *Asian Journal of Communication* 301.

In conclusion, this part illustrates that law can encourage people to expose to more diverse content by obliging selection intermediaries to design their services in a way towards exposure diversity. It presents a number of examples that selection intermediaries could design their technical structure in order to encourage exposure diversity. Legal provision alone is not an effective way to shape the conduct of individuals; technology is an important supported instrument for solving exposure diversity problem. In other words, an understanding of the interaction between law and technological structures is the essential precondition for exposure diversity to be achieved. Therefore, selection intermediaries should be obliged to the diversity by design application in order to actively design their algorithms, functions and screen features to facilitate people to consume more diverse choices.

### **Part III: Media Literacy**

Apart from the constraints due to technical structures as discussed in Part I and II, insufficient skills of people to search for diverse content is another factor which obstructs the achievement of exposure diversity. This Part, therefore, proposes that the measures to promote media literacy and empower people's knowledge are also prominent to encourage people to consume more diverse content. In the first section, it starts by discussing the problem of people's literacy with the concept of digital divide and the data from Ofcom's report. The next section then proposes that the measures to achieve exposure diversity are to regulate selection intermediaries to have a legal duty to promote media literacy. An example approach to oblige selection intermediaries to empower people with media literacy will be provided in the last section.

#### *1. The problem of people's skills and digital divide*

As mentioned in Chapter 1, people now turn from passive audience to active audience. Media contents they actually consume do not solely depend on what media providers offer, but importantly also rely on what they seek and choose. Consequently, exposure diversity is increasingly a matter of possessing the right skills to find diverse information. However, being an active audience does not always mean being a literate audience. This is because, with the increased choices, the process of accessing and consuming media content has become more complex. In reality, people have deficient

skills and knowledge in response to abundant choices. This can be seen from the concerns of ‘digital divide’.

Digital divide became a topic of interest during the early 1990s as the Internet and the use of personal computers grew in prevalence.<sup>239</sup> Initially, the conceptualization of digital divide was on the gap between the inequalities in the distribution of Internet access and use of information technologies. It also focused on the differences caused by the lack of access to information such as disadvantages of marginalised groups in society and the fall behind of social minorities in exploiting opportunities from the digital revolution.<sup>240</sup> This type of digital divide is referred to as the first-level digital divide. Although at minimum, access to information technology is an important component, the digital divide is a much more complicated and multifaceted phenomenon that goes beyond the mere issue of physical dimension and demographic factors. At the present, scholars have moved away from this limited view of digital divide and have extended the discourse to include the topic of the skills necessary for individuals to make meaningful use of certain technology. This creates the so-called the second-level digital divide.

The second-level digital divide concerns Internet usage: it is associated with factors such as motivations and Internet skills. In this context, skill is the ability to efficiently and effectively find information on the Internet. This angle of digital divide is against the idea that accessing to technology would automatically provide all benefits of the technology. As Hargittai emphasises that the study of digital divide is the matters of skills level of users in utilizing technology.<sup>241</sup> Thus, the distinction between the multiple layers of an Internet access and online skills among Internet users should be made.<sup>242</sup> The latter indicates the differences between groups of people in terms of skills necessary to effectively use the Internet. Individuals have diverse ways of using the Internet which is often determined by a variety of factors such as physical, psychological, cultural, and

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<sup>239</sup> See National Telecommunications and Information Administration, ‘Falling through the net’ (A Report on Americans’ Access to Technology Tools, 8 July 1999).

<sup>240</sup> For further discussion see Manuel Castells, *The Internet galaxy* (OUP 2002); Jan van Dijk, *The deepening divide* (Sage 2005); Matthew Eastin, Vincent Cicchirillo and Amanda Mabry, ‘Extending the digital divide conversation’ (2015) 59(3) J.Bro.Elec.M 416.

<sup>241</sup> Eszter Hargittai, ‘Second-level digital divide’ (2002) 7(4) First Monday <<http://journals.uic.edu/ojs/index.php/fm/article/view/942/864>>.

<sup>242</sup> See e.g. Neil Selwyn, ‘Reconsidering political and popular understandings of the digital divide’ (2004) 6(3) NMC 341; Pippa Norris, *Digital divide* (CUP 2001) 4-17.

ecological factors.<sup>243</sup> As a result, there are varying levels and online skills divide among individuals in that highly skilled users make better use of the Internet.

The concerns about people's skills in Internet usage have been illustrated in Ofcom's reports. From the reports, there are some indications that children's Internet usage is now becoming narrower than in 2015. The majority of Internet users aged 8-11 (66%) or 12-15 (53%) only use websites or apps they have used before.<sup>244</sup> Besides, more 12-15s are turning to Google for 'true and accurate information'<sup>245</sup> and more than one in four of the children and young people believe that if a search engine lists certain information then the results can be trusted.<sup>246</sup> Also, only a minority of 8-11s (28%) and 12-15s (43%) can correctly identify sponsored links on Google as advertising (consistent with the findings from 2016).<sup>247</sup> This data shows the limited understanding of children on how search engines work.

For the adults, there are some similar patterns in the lack of literacy. One in five of the adults say that if results are listed by search engines, the websites will be accurate or unbiased.<sup>248</sup> The majority of Internet users are confident that they can identify advertising online; however, only half of them could correctly recognise or are aware of personalised advertising on Google.<sup>249</sup> Also, 30% of users share links to articles on Twitter or Facebook without fully reading the content first.<sup>250</sup> Whereas two in three of the Internet users say they make some checks for the accuracy of the information they find online, less than a half of users particularly check different websites (genuineness of the website, or credibility of the information, or whether the site is regularly updated) (see Figure 12). Notably, older people (aged 65 and over) are less likely to make any checks for the

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<sup>243</sup> Research on digital skills classifies different levels at which digital divides exist. See e.g. Mossberger distinguished between technical competence and information literacy (Karen Mossberger et al., *Virtual inequality* (Georgetown University Press 2003)); Van Deursen classified technical competence as operational skills, information navigation skills, social skills, creative skills, and mobile skills (Alexander van Deursen et al., 'Development and validation of the Internet Skills Scale (ISS)' (2016) 19(6) *Information, Communication and Society* 804).

<sup>244</sup> Ofcom, 'Children and parents: media use and attitudes report 2016' (Ofcom, 16 November 2016) 8.

<sup>245</sup> *Ibid*, 9.

<sup>246</sup> Ofcom, 'Children and parents: media use and attitudes report 2017' (Ofcom, 29 November 2017) 13.

<sup>247</sup> *Ibid*, 13.

<sup>248</sup> Ofcom, 'Adults' media use and attitudes report 2017' (Ofcom, 14 June 2017) 139. (This response is unchanged compared to 2015 (18%) and does not vary by age or household socio-economic group compared to the average. There are no differences by gender.)

<sup>249</sup> *Ibid*, 9.

<sup>250</sup> *Ibid*, 58.

accuracy of information and are less likely to seek a range of points of view on stories they are interested.

Figure 12: Checking the accuracy of information found online<sup>251</sup>



IN39. When you find factual information online, perhaps on social media or on search engines like Google do you ever check the accuracy of the information in any of these ways? (prompted responses, multi-coded).  
 Base: Adults aged 16+ who go online (1553 in 2016).

As illustrated, information about people's online skills can indicate the extent people are able to use online media in a way that they consume valuable diverse content. The capability to effectively use the Internet allows people to find different types of information to their maximum benefits. However, most people have restrictive knowledge and strategies to exploit selection intermediaries when dealing with diverse content. If users often frustrate and confuse in dealing with technology and overwhelming information, then infinite available information does not mean that exposure diversity has been achieved.

The problem of people's skills and digital divide highlights a crucial concern of media education and media literacy. The knowledge and ability of how selection intermediaries can be used are considered as a key resource to achieved exposure diversity. As the CoE states that 'media literacy contributes to media pluralism and

<sup>251</sup> Ibid, 142.

diversity by reducing the digital divide'.<sup>252</sup> The European Commission also places much emphasis on the media literacy initiative for improving media plurality: 'a media literate society would be at the same time a stimulus and a pre-condition for pluralism and independence in the media'<sup>253</sup>. Therefore, activities to promote media literacy and education are the prominent approaches to encourage people to consume more diverse content. The next section, then, explores the concept of media literacy.

## 2. The concept of media literacy

As discussed in the above section, media literacy can empower people to expose themselves to more diverse content. This section, then, examines the definition and scope of media literacy. The relation between media literacy, selection intermediaries and exposure diversity will be analysed. It also discusses how selection intermediaries can have a legal duty to promote media literacy through an informative approach.

### a. Definition and scope

Historically, 'literacy' is the concept which remains a contested one due to various social contexts and social conditions. According to the widely accepted definition, literacy is traditionally conceived as reading and writing ability.<sup>254</sup> This is because the ability to read and write is a prerequisite for being able to consume and produce information that is in written form. The concept of media literacy, like 'literacy' itself, has different meanings in different countries and for different stakeholders. Whereas media literacy is frequently acknowledged as a necessity, there is no agreement on its meaning. Media literacy is also a dynamic concept and it is broadened in scope as it evolves along the changes of technology and society.

Traditionally, media literacy generally stresses the understanding, comprehension, critique, and creation of media materials.<sup>255</sup> It also raises awareness and a critical approach to the role of commercial communication. This is because the concept was developed at a time when media ownership and content have been regarded more

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<sup>252</sup> Recommendation CM/Rec (2018)1 on media pluralism and transparency of media ownership, 2.

<sup>253</sup> Recital 16 of Recommendation on Media Literacy; See also Recital 13 of European Parliament resolution on media literacy in a digital world.

<sup>254</sup> See Brian Street, *Literacy in Theory and Practice* (CUP 2004) 1.

<sup>255</sup> See Sonia Livingstone et al., 'Converging traditions of research on media and information literacies' in Julie Coiro et al.(eds.), *Handbook of research on new literacies* (Routledge 2008) 103, 107.

critically whereas access to information was not seen as a significant problem. Today, as a major shift in information and communication technologies becoming central to the modern society, the concept of media literacy is being extended from its traditional focus on print and audiovisual media to encompass the Internet and other new media. Media literacy expands to encompass new forms of literacies: information literacy and digital literacy.

According to UNESCO, media literacy is an umbrella concept associated with information literacy.<sup>256</sup> Information literacy, according to ALA, is a set of integrated abilities encompassing a reflective discovery of information, an understanding of how information is produced and valued, and utilizing the wide range of information sources and tools in reaching solutions to certain problems.<sup>257</sup> It places more emphasis on the access, identification, location, evaluation, and use of information materials. For UNESCO, information literacy is the critical and analytical skills needed for digital users to recognise their information needs and to recognise the power of media in our daily lives.<sup>258</sup>

The European Commission describes digital literacy as one of the many components of media literacy.<sup>259</sup> The UNESCO framework also defined 21st-century skills as the combination of various digital literacies aiming to empower users through critical and communicative skills. Digital literacy is the ability to understand and to appropriately use digital tools to identify, access, integrate, evaluate, analyse and synthesise information from a variety of digital sources.<sup>260</sup> Digital skills are about having information and communication technology skills and competencies to be able to effectively construct new knowledge, create media expressions, and communicate with others. Therefore, media-literate people are capable of exercising informed choices and

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<sup>256</sup> UNESCO, 'Media and Information Literacy' (UNESCO, 2013) (The purpose of the framework is to bring the fields of information literacy and media literacy together as a combined set of competencies necessary for life and work today.)

<sup>257</sup> See American Library Association (ALA), 'Final report' (ALA, 10 January 1989).

<sup>258</sup> Ralph Catts and Jesus Lau, *Towards Information Literacy Indicators* (UNESCO 2008).

<sup>259</sup> See European Commission, 'Digital Literacy Report' (European Commission, 2008); European Commission, 'A Digital Agenda For Europe' (COM(2010) 245, 19 May 2010 ); For the US see Mignon Clyburn, FCC Commissioner, 'A national Digital Literacy Corps to meet the adoption challenge' (Speech delivered at the Digital Inclusion Summit, 9 March 2010 ('But knowing how to read is no longer sufficient to be 'literate' in the 21st Century. Basic literacy must be supplemented with digital literacy.'))

<sup>260</sup> See Paul Gilster, *Digital Literacy* (Wiley 1997); Allan Martin, 'Literacies for the digital age' in Allan Martin and Dan Madigan (eds), *Digital Literacies for Learning* (Facet 2006) 3.

taking advantages of the full range of opportunities offered by new communications technologies.

Consequently, the US's 1992 National Leadership Conference on Media Literacy provides a key concept of media literacy as the ability to access, analyse, evaluate and create messages across a variety context.<sup>261</sup> In the UK, Ofcom defines a clear and concise definition of media literacy as 'the ability to use, understand and create media and communications in a variety of contexts'.<sup>262</sup> Precisely, media literacy is concerned with the development of an informed and critical understanding of the nature, technique and impact of media content encountered in everyday lives. It is a result of the process of media education. The aim of media literacy is to increase people's awareness of how media are organised and influence the construction of their own reality. It is a fundamental skill not only for young people but also for adults and elderly people. It is regarded as one of the key pre-requisites for a matter of inclusion and citizenship in today's information society.<sup>263</sup>

b. Media literacy, exposure diversity and selection intermediaries

Media literacy is a powerful strategy to achieve exposure diversity in the aspect of autonomous value.<sup>264</sup> A fundamental requirement of personal autonomy is the capacity to establish 'self-determination' or 'self-government' on behalf of oneself.<sup>265</sup> All components of creating an autonomous life are constituted by information and communication environment individuals occupied. In this regard, central to the autonomous value of exposure diversity is 'to enable or empower the individual to realise her personal freedom of choice and self-fulfilment through the media contents she decides to consume'.<sup>266</sup> Therefore, exposure diversity in this context is the choice to choose freely from the sufficient variety of content exposed to the individual. For a person to be free to

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<sup>261</sup> Patricia Aufderheide, *Media Literacy* (Aspen Institute Communications and Society Program 1993); William Christ and James Potter, 'Media Literacy, Media Education, and the Academy' (1998) 48(1) J.Com 5, 7.

<sup>262</sup> Ofcom, 'About media literacy' <<https://www.ofcom.org.uk/research-and-data/media-literacy-research/media-literacy>>; For the EU see European Commission, 'A European approach to media literacy in the digital environment' (COM(2007) 833, 20 December 2007) 3 (Media literacy is generally defined as the ability to access the media, to understand and to critically evaluate different aspects of the media and media content and to create communications in a variety of contexts.)

<sup>263</sup> Recital 15 of Recommendation on Media Literacy.

<sup>264</sup> See Part I.2b Classification of exposure diversity, p. 47-48.

<sup>265</sup> Gerald Dworkin, *The Theory and Practice of Autonomy* (CUP, 1988) 6.

<sup>266</sup> Natali Helberger, 'Diversity label' (2011) 1 J.Inf.Pol 337, 345.

select their choices (or ‘self-determination’), diverse viewpoints exposed to the individual is not sufficient: they should also have the skill to evaluate available options. These skills contribute to personal autonomy.

In today's world, citizens need to develop analytical skills that allow for a better intellectual and emotional understanding of digital media. As Livingstone and Wang point out that the rapid transformations in the digital media landscape have put an increasing pressure on individuals to must rely on digital skills as never before to prevent digital exclusion.<sup>267</sup> For instance, filter bubbles and other invisible algorithms that narrow people’s exposure to diverse views can be regarded as a constriction of individual autonomy and prevent people from accessing to what they actually want. Media literacy is a means to assist people to become aware of the filter bubbles where they may be trapped in one. The goal of media literacy policy is to improve the ability of people to find diverse content and to stimulate people’s demand for diverse viewpoints. The measure to empower people through providing information and education does not only protect people from an abusive power of selection intermediaries but also turn them into an efficient active audience. As Tessa Jowell, the Secretary of State for Culture, Media and Sport, stated in 2004:

‘... in the modern world media literacy will become as important a skill as maths or science. Decoding our media will be as important to our lives as citizens as understanding great literature is to our cultural lives.’<sup>268</sup>

In this complex environment of convergence and diversification in media and communications technologies, people need information choices which are potentially autonomy-enhancing. Thus, regulation and policy now turn to information literacy measures and training strategies that empower the users to make the best possible use of information and communication services and technologies.<sup>269</sup> As a result, skilled people

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<sup>267</sup> Sonia Livingstone and Yinhan Wang, ‘Media literacy and the Communications Act’ (LSE Media Policy Project, 9 April 2014) 2.

<sup>268</sup> Bernadette McNulty, ‘Jowell’ (The Guardian, 21 January 2004).

<sup>269</sup> See e.g. European Council, ‘Council conclusions on Media Literacy in the Digital Environment’ (2978th Education, Youth and Culture Council meeting, 20 August 2009); Recommendation CM/Rec(2007)16 on measures to promote the public service value of the Internet; Recommendation Rec(2006)12 on empowering children in the new information and communications environment.

can protect their own interests by being critical of his sources of information and autonomously choosing informed choices.

Therefore, it is obvious that media literacy is an important factor in the achievement of diversity of exposure. However, a more important and challenging question is how to practically improve the skills and knowledge of people to access more diverse content and who should have the role to educate people? What information and what form are necessary to make people be aware of the content they consume? The current media literacy policy merely focuses on the role of the public sector and the government to educate people to be a more skilled audience. The approaches applying to selection intermediaries to inform people regarding media literacy have not been considered. In particular, the European Commission emphasises that the national authorities have the primary responsibility to include media literacy in school curricula at all levels: the role played by local authorities is also very important, since they are closer to the citizens and support initiatives in the non-formal education sector.<sup>270</sup>

Policy initiatives in relation to media literacy usually fall in the field of education. For example, The Safer Internet Plus programme (2004-2008) aims at empowering parents, teachers and children with Internet safety tools. It also aims at improving knowledge about Internet and mobile phone usage by children, their online behaviours and their perceptions of risk- and safety-related issues.<sup>271</sup> Also, Media Smart is a not-for-profit media literacy programme for school children aged 7 to 16 years old.<sup>272</sup> It creates free educational materials for schools and youth organisations (for teachers, parents and guardians) to provide comprehension for young people about advertisements they come across in their daily lives.

This thesis suggests that selection intermediaries should have a legal duty to promote media literacy with an objective to assist and empower people to expose to more diverse content. This is because, to effectively achieve media literacy, practice in every life is more important than formal education. Computer learning courses and books are not the most important sources for learning digital skills. The idea that people primarily are learned, or should be learned, in formal classes or educational course is a fallacy

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<sup>270</sup> Recital 18 of Recommendation on Media Literacy.

<sup>271</sup> European Commission, 'A European approach to media literacy in the digital environment' (COM(2007) 833, 20 December 2007) 5.

<sup>272</sup> MediaSmart <<http://mediasmart.uk.com/>>

derived from the perception that media literacy is always difficult to master. However, everyone trying to remember how they acquire information technology competencies in the past knows that they learn by doing and they learn from utilizing digital tools in real life. Most Internet users learn by trial and error. Therefore, the do-it-yourself approach is a much more important source of learning the skills to access a wide range of diverse media. As the Media Literacy Task Force responds to the Department for Culture, Media and Sport's Creative Economy Consultation:

‘Being, or becoming, media literate is a life-long journey of learning... it involves people having both technological and intellectual access to a wide range of diverse media .... as well as being confident enough to question and be creative with media and media content at work, in the home and in civil society.’<sup>273</sup>

In this regard, digital tools and media particularly selection intermediaries are one of the most important resources for media literacy. Selection intermediaries can assist the skills and knowledge of people to access more diverse content by raising the awareness of citizens regarding the operation of their platform and technical policies. Much of the awareness-raising could be accomplished by informing citizens during their normal Internet use in everyday life via explanation or providing an array of tools to allow the general public to have hands-on experience. The environment where people are informed, practised and educated in (the extent and diversity of) daily selection intermediaries usage are decisive in learning the broadest of media literacy regarding exposure diversity skills.

Therefore, in the age of active citizens, the duties and responsibilities of selection intermediaries as media entities are not only those to present diverse viewpoints in their recommendation results the same way as the broadcasting provide various types of program to passive viewers in the past. The positive duty of selection intermediaries should also include the compliance with the standard to enhance media literacy of citizens. Finding an active role of selection intermediaries to inform people to be skilled audience is also an increasingly important theme in achieving exposure diversity. As the CoE emphasises on the empowerment of users that not only the Member States and civil society but the private sectors are also encouraged to develop the provision of

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<sup>273</sup> BBC, ‘BBC Media Literacy Strategy’ (BBC, May 2013) 5.

information, guidance and assistance to the individual users of technologies and services.<sup>274</sup> Notably, it does not mean that the importance of practice should rule out the necessity of formal education. For users to learn better information and digital skills, formal education and learning by practice are both complementary needs. This section only emphasises that selection intermediaries as media and digital tools can potentially facilitate and enhance the skills and knowledge of people to expose to more diverse content in a learning-by-practice approach.

c. Informative approach

The next major question is how or in what form selection intermediaries can practically raise the skills and knowledge of people to consume more diverse content. One of the potential strategies for selection intermediaries to encourage media literacy is an informative approach. The way information and choices are presented can be used as an efficient means for people to protect themselves. Guiding users through information could potentially be an attractive option to direct people towards desired outcomes. The informative approach offers a win-win solution: people are empowered to be more skills literate and drive up literacy standards, whilst selection intermediaries are allowed reasonable flexibility to provide content and services without restrictions from regulatory controls. It has long been reflected in the UK, e.g. consumer law, that the provision of information is one of the key tools available to enhance consumer protection. In particular, regulatory laws such as product liability encourage positive information requirements and impose the liability provision of false or misleading information.<sup>275</sup> Also, the private law recognises the desire of consumers to have better information about traders by developing a Consumer Codes Approval Scheme, established by the Enterprise Act 2002, and to place the right to use the Office of Fair Trading approved logo.<sup>276</sup>

In make choices, users need information. The ability of users to make effective choices is affected if they lack necessary information to be aware of the relevant and valuable content. This is a case of information asymmetries meaning situations in which users have less information than services of digital information about characteristics,

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<sup>274</sup> Recommendation Rec (2007) 11 on Promoting Freedom of Expression and Information in the New Information and Communications Environment.

<sup>275</sup> See Geraint Howells, André Janssen and Reiner Schulze, *Information Rights and Obligations* (Routledge 2017)

<sup>276</sup> See the Department of Trade and Industry, 'Extending Competitive Markets' (The Department of Trade and Industry, 2004).

functionality, licensing conditions, etc. Consequently, users cannot make decisions that reflect their true preferences or find it difficult to make truly informed or diversified choices.

The informative approach is a response to the asymmetries of information between audience and media entities. There are not sufficient incentives for selection intermediaries to volunteer information; therefore the law needs to require that the information is provided. Potential roles of information provision are various. Selection intermediaries can notify their users about functions, screen features and instruction guides of services. It may nudge people to be aware of the risk of their behaviour and filter bubbles. Also, it can empower users by informing them about broader implications of their choices and possibly even encouraging valuable choices. Once this information is provided, the audience can protect their own interests by selecting the contents that are relevant and valuable to them, while delineating it from other noises. As Helberger explains:

‘[i]nforming consumers about their choices (in the hope that they will make the right ones) has been repeatedly advanced as a preferable route to the traditional, paternalistic approach in media regulation – which regulates the offering and pre-defines choices’<sup>277</sup>

Users do not only need ‘information about information’ to be able to choose valuable offers from all the information available on the Internet, this information has to be in a format that effectively assists users in the clarity of communication, comparing and finding content. The provision of information comprises accurate analysis, planning, presentation and understanding of its content, language and form. An effective information provision needs to be supported by multidisciplinary studies: put together with insights from a large number of academic disciplines such as languages, arts and aesthetics, information sciences, communication sciences, behaviour and cognition, business and law. However, the detailed discussion and analysis of information design are beyond the scope of this thesis.<sup>278</sup>

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<sup>277</sup> Natali Helberger, ‘Diversity label’ (2011) 1 J.Inf.Pol 337, 343-344.

<sup>278</sup> For further discussion see e.g. Rune Pettersson, ‘Information Design’ (2010) 29(2) Journal of Visual Literacy 167.

A crucial concern in this informative approach is information overload. There is a misunderstanding that piling more extensive information on people will make truly informed choices. The more information, however, the less likely it will actually be useful. A badly-designed information provision can actually confuse or distract viewers. Besides, research suggests that users tend not to read lengthy documents, even if it would be in their interest to do so.<sup>279</sup> Therefore, in order to be effective, the core of informative approach is information reduction and standardization. To be helpful to promote exposure diversity, information provision needs to be reduced to the necessary minimum. Also, the information approach would require a certain level of standardization in order to enable viewers to compare different types of content and make an informed choice. The application of these concerns on selection intermediaries to achieve exposure diversity will be discussed in the next section.

### 3. The application of 'media literacy' to selection intermediaries

After having explored the potential contribution of an informative approach, this section examines the application of media literacy to encourage exposure diversity. Since the informative approach has various methods, this section will only provide two regimes for presenting two types of information by way of examples which are: notification (information about functions of selection intermediaries) and nudging filter bubble (information about the behaviour of people).

#### a. Notification

One of the most crucial types of information for achieving exposure diversity is information about functions of selection intermediaries. For people to effectively search and consume diverse content, it is necessary for them to understand functions of selection intermediaries which affect the flow or presentation of information. Also, if people are not aware of the existence of such functions, it is meaningless for selection intermediaries to create and provide new diversity-friendly services or functions. However, people scarcely know what functions selection intermediaries have and rarely exploit them comprehensively. They are usually not aware of the change of default settings or new functions which are continuously appeared all the time. Therefore, a provision of

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<sup>279</sup> Yannis Bakos et al., 'Does Anyone Read the Fine Print?' (2014) 43(1) The Journal of Legal Studies 1.

knowledge about functions of selection intermediaries is a way to empower people to expose themselves to more diverse content.

Information about functions of selection intermediaries can be provided in a form of notification. The main purpose of notification is to prompt the awareness or enable a reminder for actions which may risk certain concerns or values. The benefits of such notification are providing data for risk assessment, monitoring the situation, and identifying the need for a response. The notification strategy has been used as a legal requirement in many areas of law. For example, Article 5(3) of the ePrivacy Directive, amended by The Citizens' Rights Directive<sup>280</sup>, which applies to the installation of and the access to cookies provides that

'[...]the subscriber or user concerned has given his or her consent, having been provided with clear and comprehensive information, in accordance with Directive 95/46/EC, inter alia, about the purposes of the processing. [...]' <sup>281</sup>

Art.29WP broke down the provision of ePrivacy Directive into two obligations: to provide a clear and comprehensive information and to offer the right to refuse or consent as a requirement for the allowance of the use of cookies.<sup>282</sup> It is, therefore, of paramount importance that users are provided with clear and comprehensive information when engaging in any activity that could result in such storage or gaining of access. Art.29WP has pointed out that the information has to be provided in simple language.<sup>283</sup> Also, the methods of providing information should be as user-friendly as possible.<sup>284</sup> In particular, Art.29WP considers that the provision of information in the general terms and conditions or in the policy of the providers' websites is 'hidden' to users.<sup>285</sup> Consequently, it proposes that the information should be presented on the screen of the user in an interactive way so that it is clearly spotted by the user.

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<sup>280</sup> Directive 2009/136/EC amending Directive 2002/22/, Directive 2002/58/EC and Regulation (EC) No 2006/2004 ('Citizens' Rights Directive').

<sup>281</sup> Directive 2002/58/EC on privacy and electronic communications, Article 5(3)

<sup>282</sup> Art.29WP, 'Opinion 16/2011 on EASA/IAB Best Practice Recommendation on Online behavioural Advertising' (WP188, 8 December 2011).

<sup>283</sup> Art.29WP, 'Recommendation 1/99 on Invisible and Automatic Processing of Personal Data on the Internet Performed by Software and Hardware' (WP17, 23 February 1999) 3.

<sup>284</sup> Recital 66 of the Citizens' Rights Directive.

<sup>285</sup> Art.29WP, 'Opinion 16/2011'

To this end, Art.29WP welcomes creativity on new ways of presenting the information to the user that would go beyond the current practices of pop-up windows. For example, it can be the placement of static information banners on the top of a website which contains a hyperlink to a privacy statement and detailed information that is needed for the acquisition of valid consent. Alternatively, a website can implement a splash screen with relevant information when the user is visiting the website.<sup>286</sup>

To encourage exposure diversity, therefore, selection intermediaries should provide notifications to inform users about the functions of their websites which have some risks on exposure diversity, such as ‘Unfriend’ and ‘Follow’ functions on Facebook and ‘People also search for’ on Google Search. Besides, these notifications can appear when users adjust their settings of the intermediaries and when selection intermediaries themselves change the default of their operations. Also, notifications should be provided when selection intermediaries launch a new function which has an effect on how content exposed to people. The information provided in the notification should be clear enough to enable the user to make a truly informed decision. The adequate way of notifying users can be a presentation via pop-up windows. Nevertheless, it can be alternative ways of offering information to the users such as an explanation box appearing when users point or click on a particular function, or a random notification to suggest certain functions that users may not know of or rarely use. Also, when users choose to exploit functions which cause a negative effect on exposure diversity (e.g. ‘Unfriend’ function), there should be a warning describing the risk of filter bubble or a reduction of a variety of presented information before confirming to operate such function.

b. Nudging filter bubble

Another way to promote media literacy is to provide information about user’s usage behaviour or patterns of consumption in selection intermediaries. This type of information is a crucial factor to break out of filter bubble. While many people agree that reading a diverse set of news is good, many do not realise how skewed their own reading behaviour is. Although they want to find a challenge or contradict viewpoint, they do not know what information is filtered and are not aware whether they are seeing a very

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<sup>286</sup> Ibid., 9-10.

different set of items than other users see. As a result, personalised filters diminish user's control in such a way that they cannot get more diversity.

Filter bubble can be acknowledged and people can come out of it by increasing the awareness of the presence of filters that are implemented in selection intermediaries. By exposing the data about their usage, users will become aware of their own biases as well as the bias that the system has. They, then, may consciously decide to explore items from other areas by interactively changing their behaviour. Consequently, it will open an avenue for discovering new interests.

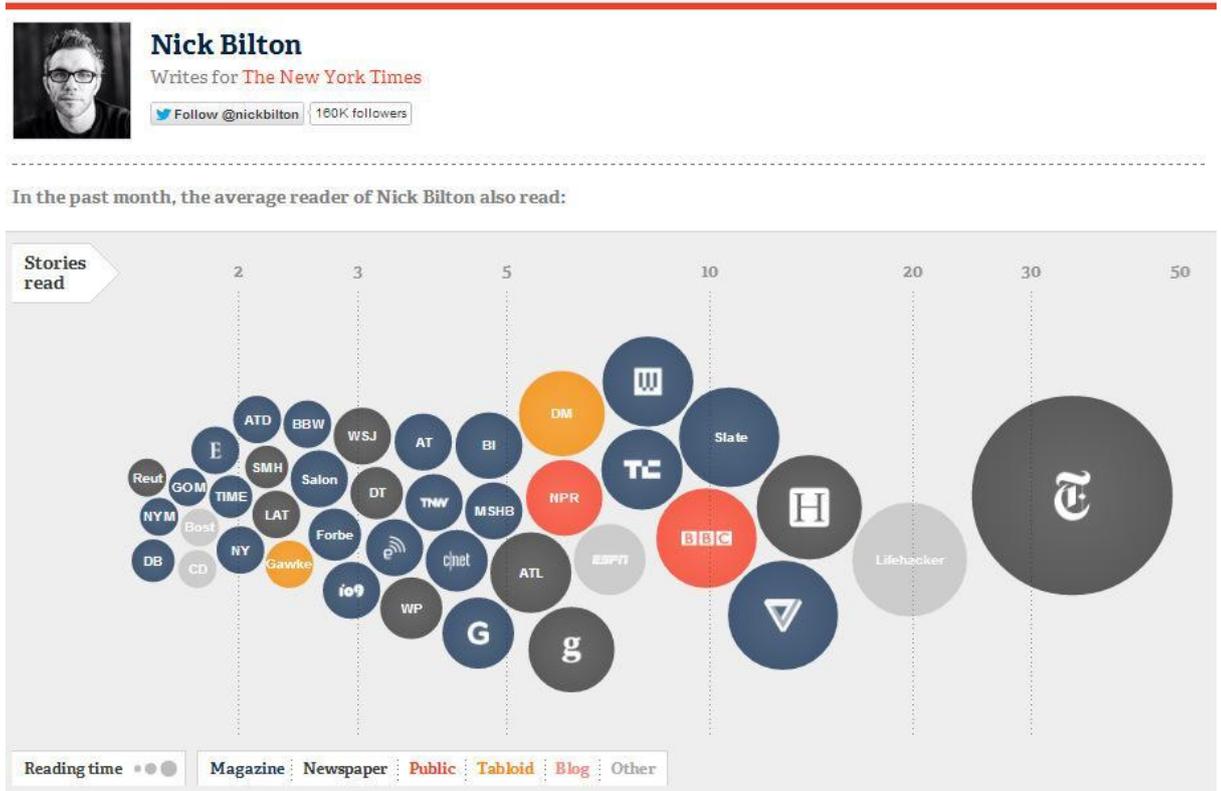
Selection intermediaries, therefore, should design their functions or features by taking the view to develop the awareness of filter bubbles and attempt to give users some sense of choices they choose. This can be done by summarizing data of user's behaviour into the form of an infographic. With the big data selection intermediaries possessed, the presentation of information about the pattern of consumption is not difficult. In fact, now Facebook, for example, has presented a set of collected information to remind the users about their relationship with other people in special occasion or about the memory users have done year by year.

The design of function or infographic to notify filter bubble can also be seen in practice. For example, Scoopinion is a news aggregation browser add-on that monitors not just how much time readers spend on a certain site but also the time spent on each line of text presented in an article.<sup>287</sup> It analyses every news piece that people peruse, and all the articles are rated according to users' behaviour. What is interesting is that Scoopinion has a function to provides a visual summary of one's reading habits by displaying user's media fingerprint (see Figure 13). In the displays of media fingerprint, the larger circles illustrate the most news outlets that the user consumed. Therefore, provision of a visualization of users' information consumption habits will encourage users to choose or read more diversely.

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<sup>287</sup> Scoopinion <<http://www.scoopinion.com/>>

Figure 13: Scoopinion<sup>288</sup>



There are also studies from other academic fields on the possible design of function or feature to nudge filter bubble. For example, Balancer is a widget designed to nudge users to read balanced political viewpoints.<sup>289</sup> It is a browser tool that tracks users' reading activities and shows their reading behaviour and biases. The data is implemented as a character on a tightrope with his balance affected by the approximate histogram of the user's liberal and conservative pages visited (see Figure 14). If one's reading behaviour is too skewed, the character is in peril of falling. The widget represents the aggregate political lean of users' reading behaviour for the week-to-date along with more detail when clicking on the icon in the browser window. The primary goal of Balancer is to increase the awareness by monitoring user's behaviour and to make changes in response to read more balanced news.

<sup>288</sup> STARTCUP, 'Scoopinion' (STARTCUP, 9 January 2013) <<http://startup.in/scoopinion-a-tool-which-analyzes-and-delivers-the-news-based-on-your-interests/>>

<sup>289</sup> Sean Munson et al., 'Encouraging reading of diverse political viewpoints with a browser widget' (Proceedings of the 7th ICWSM, 8-11 July 2013) 419.

Figure 14: Balancer<sup>290</sup>



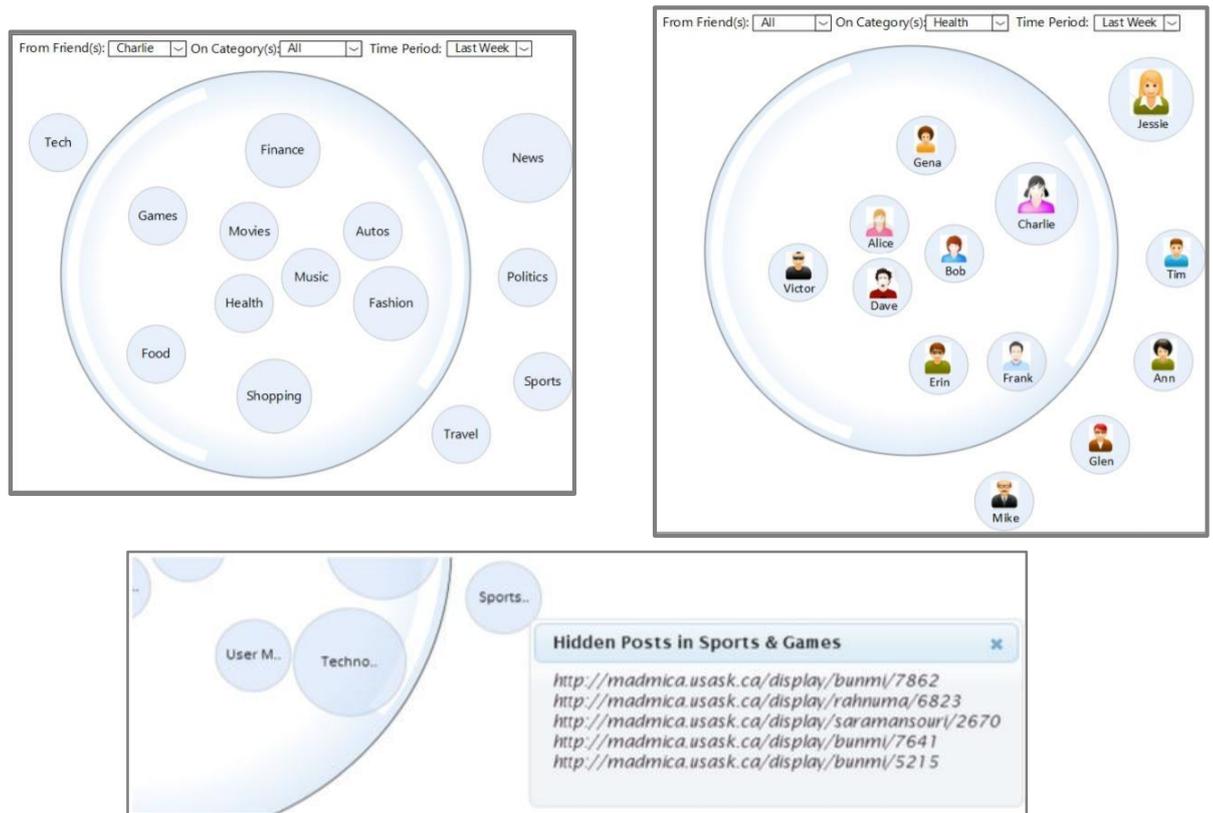
Lastly, Nagulendra and Vassileva developed a visualization working in social media which is designed based on a bubble metaphor to make users more understandable for their filter bubbles.<sup>291</sup> The visualization provides two alternative points of view: the user's friends and the categories of content (see Figure 15). The tool shows users the space of the screen in two parts: ones which are inside the bubble represent the visibility for the users, and ones which are outside the bubble have been filtered out from result recommendation. Also, by clicking on a particular icon of categories or friends, the users can see all the details and the status updates related to that content or person. Further, it allows them to manually manipulate the algorithm in order to escape the bubble by dragging and dropping the category/friend icons inside and outside the bubble. As a result, this visualization encourages users to increase awareness of the filter bubble and promote the exploration of content that is filtered away.

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<sup>290</sup> Ibid.

<sup>291</sup> Sayooran Nagulendra and Julita Vassileva, 'Providing awareness, explanation and control of personalized filtering in a social networking site' (2016) 18(1) *Journal of Information Systems Frontiers* 145.

Figure 15: Bubble visualization<sup>292</sup>



In conclusion, media literacy is the measure to improve the ability of people to find diverse content and to stimulate people’s demand for diverse viewpoints. The approach to promote media literacy and education is important to encourage people to consume more diverse content. This section, therefore, proposes that selection intermediaries should have a legal duty to promote media literacy.

In summary, this chapter proposes three significant measures to regulate selection intermediaries in the achievement of exposure diversity. The first approach is that the principles of ‘net neutrality’ and ‘impartiality’ should be applied to selection intermediaries to guarantee people’s accessibility to diverse content on the Internet. Regarding net neutrality, selection intermediaries should have the obligation to operate in neutral: i.e. (i) not to block the transmission of content and social online activities, (ii) operate reasonable management to prevent commercial or other bias, and (iii) not to

<sup>292</sup> Ibid.

charge for the provision of content in normal result recommendations. Also, the application of impartiality on selection intermediaries can be in a form of: (i) preventing one side of views from overwhelming result recommendations such as by dealing with bombarding of information and fake news; and (ii) providing diversity to be obviously noticed in result recommendations such as during the period of an election and referendum, or in a controversial issue.

The second measure is the concept of ‘diversity by design’ that selection intermediaries can design the algorithms, functions and screen features of their services to encourage people to consume diverse content. It presents a number of examples that selection intermediaries could design their technical structure in order to encourage exposure diversity e.g. discovering the difference, exposing to diverse media outlets/speakers, facilitating comparison, and promoting serendipity. The implementation of ‘diversity by design’ in legal obligation will nudge the relevant stakeholders (such as policymakers, the private sectors and scholars) to develop a practical guidance and technology in a way towards the exposure diversity goal.

The final approach is ‘media literacy’ that selection intermediaries should have an obligation to assist the improvement of people’s skills and knowledge to access to more diverse content. One of the potential strategies for selection intermediaries to encourage media literacy is an informative approach. The way information and choices are presented can be used as an efficient means for people to protect themselves. This thesis proposes two regimes for presenting two types of information which are: (i) providing notification to inform users about functions of selection intermediaries and (ii) nudging filter bubble by providing information about the behaviour of individuals regarding their use of selection intermediaries to consume content.

It is noteworthy that these three measures complement each other; therefore, applying these principles to selection intermediaries concurrently will reach the ultimate accomplishment of exposure diversity. Nevertheless, it should also be noted that exposure diversity is not a panacea to solve filter bubble or audience polarisation. It is possible that eventually it remains up to the people to decide which content to consume and which to ignore.

## Chapter 5

### Conclusion and Ways forward

This final chapter summarises the main findings of this thesis in order to answer the research question: ‘how and what are the appropriate approaches to regulate the role of new selection intermediaries to achieve exposure diversity’.

#### *1. The change of media landscape in the Internet age*

In the pre-internet era, traditional media which are newspapers and broadcasters acted as the essential intermediaries of society’s information flows. A few people who own media companies had controlled the power to speak effectively to a significant number of people while audiences were passive and had no voice. Due to the Internet and the convergence of technology, the media landscape has dramatically changed. The arrival of the Internet gives ordinary citizens the power to actively distribute media content to the public. As a result, the abundance of information provided by people represents an almost infinite choice for the public to choose from. This new form of communication technologies sparks some hopes to the optimists that this new technology will solve the problem of media plurality. Unfortunately, it reconfigures a more complex and challenging problem. The concern of new media network is not about the lack of information but rather the overload of information. The abundance of information on the Internet does not always contribute people to be exposed to more diverse content. The major problem in an environment of overflowing available information is how to find certain content.

This is because of the three major changes of media landscape. First, the scarcity of resource in the new media is no longer the problem; but the attention of people is currently a matter of concern. In the environment of abundant information, the so-called ‘attention economy’ has emerged. In Internet network structure, it is ‘link’ that determines the limited attention of people. Unless knowing the exact links to a location of a webpage, it is impossible for the content to be found among the abundance of information. Therefore, controlling the links means controlling the attention of people.

Second, the audience has shifted from a passive position to an active one. The behaviours of people have changed from passively receiving content from media

companies to actively finding what they are interested in through selection intermediaries. Consequently, media content they actually consume does not solely depend on what media providers offer, but also from what they seek and choose. However, being an active audience does not always mean being a literate audience. In reality, people are deficient in skills and knowledge in responding to abundant choices. It can result in narrowing the range of people's attention to concentrate around a few sources.

The third reason is an arrival of new selection intermediaries, specifically search engines and social media. These new players have the power the same way the traditional media has since they are the new gatekeepers on the Internet who aggregate links to certain websites. Also, their functions such as filtering mechanisms and personalisation will cause the tendency of people to select solely certain topics and activities which are relevant to them. Consequently, this behaviour can generate audience fragmentation and audience polarisation.

Therefore, the abundance of available information does not guarantee people to expand their media use and does not solve the issue of media plurality. The real issue for media plurality now is not the availability of diverse content but the actual accessibility. In other words, the concerns about media plurality have moved to the diversity of actual content exposed to people or 'exposure diversity'.

## 2. Exposure diversity

Exposure diversity refers to actual diverse media content and sources that are exposed to the audience. It is an aspect of media plurality which focuses on the audience side and it is distinct from diversity of source and available content which focuses on the supply side. As McQuail illustrates, diversity of actually selected content (or "content as received") is in a different dimension of diversity of available content (or "content as sent"). They are two different things and do not always coincide; this is clearly illustrated in the Internet age where there is an almost infinite choice available for the public. Although diversity of available content is a necessary precondition for people to consume diverse content, diverse supplied content on its own cannot secure diversity of actual content exposed to people.

According to van der Wurff, the content people actually choose is the one which actually offered to them. Therefore, he provides an additional dimension of exposure

diversity: ‘diversity of choice’ which is ‘the absolute amount of different programme types that viewers can choose from’.<sup>1</sup> For Helberger, diversity of choice means the chance of people to consider possible alternatives. Therefore, the concerns of exposure diversity are about the process of making choices.<sup>2</sup>

The importance of exposure diversity can be considered on the basis of the public interest i.e. freedom of speech, democratic value, and personal autonomy. For free speech to effectively lead to truth, free and uninhibited exposure to diverse information is necessary for eliminating misconceptions of fact and value. In the marketplace of ideas, it simply stresses the need for people to be exposed to diverse ideas for information to be exchanged and evaluated. Also, exposure diversity strengthens the right to reach the audience. If selection intermediaries impose discriminatory filters against a speaker on grounds that listeners would not have selected, that speaker’s ability to communicate freely has been undermined. Whereas it is impossible for the audience to be bound to listen to any speakers, exposure diversity is an indirect way for speakers to effectively disseminate their thought and arguments to the attention of wide audiences.

For democratic value, the benefits of exposure diversity in democracy is that it assists people in society to be well-informed. The consumption of diverse information encourages people to discuss and question about conflicting viewpoints they know which is necessary for formulating their own views. By exposed to diverse information, individuals unconsciously become more tolerant toward disagreed opinions and accept differences as a normal and unthreatening facet of society; this is a desirable condition for open-minded discussions and being well-informed citizens. Besides, exposure diversity safeguards the democratic process by preventing people from listening merely to the like-mind partisans and as a result preventing the risk of abusive power of media entities and governments. Exposure diversity is also what needs to be encouraged to ensure that everyone has a fair chance. Providing diverse viewpoints presented to each individual can be regarded as equal ‘starting point’ for various opinions to influence public debate.

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<sup>1</sup> Richard van der Wurff, ‘Supplying and Viewing Diversity’ (2004) 19(2) *European Journal of Communication* 215, 217.

<sup>2</sup> Natali Helberger, ‘Exposure diversity as a policy goal’ (2012) 4(1) *J.M.L.* 65.

Lastly, central to the autonomous value of exposure diversity is ‘to enable or empower the individual to realise her personal freedom of choice and self-fulfilment through the media contents she decides to consume’.<sup>3</sup> To have an autonomous life, a person must be free to choose the choices from an adequate range of options accommodating the diversity of interests and tastes. Thus, to be autonomous, diverse and antagonistic viewpoints have to be exposed to the attention of individuals.

### 3. Insufficient existing law to achieve exposure diversity

Exposure diversity, however, has traditionally been neglected and placed at the margin of media policy debates. The current existing laws and policies have traditionally reflected the focus on traditional media, diversity of sources and diversity of content, rather than on search engines, social media and diversity of exposure. The existing media laws in Europe and the UK do not provide any measures that intend to directly regulate the way diverse content chosen by people. The reason why exposure diversity is hardly regarded in the media policies and media regulations is that the existing media laws and policies are originated at the time when a scarcity of spectrums was the main problem. In an environment where there are high barriers to entry into media market, encouraging production and distribution of diverse media content from diverse media entities was the top priority for media regulation. Therefore, the issue about exposure diversity was less regarded than the concern about how to guarantee a sufficient supply of different viewpoints from diverse sources.

Also, competition law is not applicable to sufficiently protect exposure diversity. This is because objectives of competition law and those of exposure diversity are different. Competition law is purposely created to protect the competitive market and consumer welfare. It, therefore, does not always encourage diverse media content exposed to people. Besides, there are differences between the issues under the concerns of competition law and exposure diversity. While operations of selection intermediaries can influence the volume of diverse content exposed to people, most of these actions do not tend to be considered as the anticompetitive conducts under competition law. Therefore, competition law is not appropriate and suitable to regulate selection intermediaries to influence diversity of viewpoints exposed to citizens.

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<sup>3</sup> Natali Helberger, ‘Diversity label’ (2011) 1 J.Inf.Pol 337, 345.

The main media policy's assumption is that it is inappropriate for the government to force the audience to choose diversely or consume certain information even the valuable ones. This direct interference can be regarded as unconstitutional because it potentially conflicts with fundamental freedoms of people. Also, there is an uncertainty of how the concept should be applied as possible concrete measures: it is difficult to set precise policy goals in the area of exposure diversity. However, as Valcke argues, there are undoubtedly positive roles for the law to create the conditions which encourage people to exercise their freedom to effectively expose themselves to diverse content; without infringing individuals' personal rights.<sup>4</sup>

#### 4. Regulating selection intermediaries to achieve exposure diversity

The thesis argues that the possible concrete measure to achieve exposure diversity is the regulation of selection intermediaries to promote this goal. Selection intermediaries i.e. search engines and social media are the gatekeepers in the Internet world which directly influence the diversity of content exposed to people. In this situation, selection intermediaries emerged as the tool to gather links for the audience in order to find and select content. Audiences now rely on selection intermediaries to assist them to make choices from the infinite information. They, therefore, become the key people need in order to find the relevant information.

Selection intermediaries can make content detectable, noticeable, and available in the attention of users. These new gatekeepers control the findability of content by organising and prioritising the recommendation results, filtering the media choices people make, and personalising the recommended content. If we consider that people can possibly consume diverse choices only if they have a chance to choose the alternatives, then exposure diversity would depend on the selection intermediaries' process of providing choices. Therefore, it is clearly illustrated that selection intermediaries play a crucial role in expanding or diminishing the diverse content people are exposed to. Keeping all these impacts of selection intermediaries in mind, it is not an exaggeration that the possible concrete measure to achieve exposure diversity goal is the regulation of selection intermediaries.

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<sup>4</sup> Peggy Valcke, 'Looking for the users in media pluralism regulation' (2011) 1 J.Inf.Pol 287, 303.

Although the operations of selection intermediaries are under the protection of freedom of expression, free speech of selection intermediaries can be restricted in order to promote exposure diversity. The first justification is the necessity to protect free speech and democratic value. The protection of individual's rights can be linked to the promotion of exposure diversity. As Joseph Raz argues, 'freedom of expression can be supported as part of a pluralist argument for using the law to promote pluralism in the society'.<sup>5</sup> Also, the government can restrict the operation of selection intermediaries in order to safeguard the democratic value. Since exposure diversity can be considered as a means to encourage democracy, the operations of selection intermediaries can be regulated to ensure that exposure diversity is safeguarded.

Another justification is the duty and responsibility of selection intermediaries under media freedom. This thesis argues that freedom of selection intermediaries resembles media freedom. The essential role of the media is contributing the information and ideas underlying freedom of expression to the public debate; thus media freedom is guaranteed only inasmuch as it contributes to the formation of public opinion. In the context of selection intermediaries, the right to information of people refers to the ability to use selection intermediaries in order to enhance the findability of diverse information, ideas and resources in the public networked information environment. The right to information of people includes the freedom to be exposed to diverse content. Consequently, the operations of selection intermediaries which are under the protection of freedom of expression may be limited to ensure that exposure diversity is safeguarded. In other words, free speech of selection intermediaries has the positive role to serve the interest of the public rather than to protect the interest of themselves. Therefore, the regulation imposed on selection intermediaries to encourage exposure diversity is justified.

##### 5. Creating new regulatory regimes

The thesis analyses three relevant measures to regulate selection intermediaries in order to achieve exposure diversity. By exploring factors which constrain people from

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<sup>5</sup> Joseph Raz, 'Free Expression and Personal Identification' (1991) 11(3) Oxford Journal of Legal Studies 303, 323.

being exposed to diverse content as mentioned above, this thesis proposes possible approaches to deal with these constraints.

Since the attention of people and the information accessibility are influenced by links, the obstruction of information accessibility can obviously affect diverse content exposed to people.<sup>6</sup> Therefore, exposure diversity can be guaranteed by imposing the legal role on selection intermediaries to provide people with the actual ability to access information through links

One of the main factors which significantly affect exposure diversity is the design of the technical structure of selection intermediaries. Exposure diversity can be encouraged or reduced depending on the design of the technical structure of selection intermediaries. Therefore, selection intermediaries should be obliged to actively design their algorithms, functions and screen features of their webpages to facilitate people to consume more diverse choices. This idea of the application of technology in the regulation of selection intermediaries is called ‘diversity by design’.

Apart from the constraints due to technical structures, insufficient skills of people to search for diverse content is another factor which obstructs the achievement of exposure diversity. Therefore, the measures to promote media literacy and empower people’s knowledge are also prominent approaches to encourage people to consume more diverse content. This thesis proposes that the measure to achieve exposure diversity is the regulation of selection intermediaries to have a legal duty to promote media literacy.

a. The role of selection intermediaries in providing access to information

Since selection intermediaries combine the functions of both network providers and media companies, the principles of net neutrality and impartiality should be applied to prevent arbitrary or unreasonable manipulations of content. Net neutrality supports exposure diversity by ensuring diverse content to not be excluded or lost the opportunity to be exposed to people. Regarding the different nature of selection intermediaries and network operators, some adjustments of the principle are necessary. Selection intermediaries should have the responsibility to operate in neutral: (i) no-blocking the transmission of content and social online activities, (ii) reasonable management to prevent

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<sup>6</sup> Eszter Hargittai, ‘The Digital Divide and What to Do About It’ in Derek Jones (ed.), *New Economy Handbook* (Academic Press 2003) 821, 839.

commercial or other bias, and (iii) no-charging for the provision of audiovisual content in normal recommendation results.

However, it should be noted that net neutrality is not the ultimate measure to solve every exposure diversity issue. Net neutrality has its limitation to only ensure that diverse content will not be excluded or lost the opportunity to be exposed to people. The principle of net neutrality in itself does not directly impose an obligation to present diverse viewpoints. Thus, selection intermediaries should have the role to operate impartiality which encourages exposure diversity. Impartiality principle promotes the accessibility to sufficient alternative information. It imposes an obligation on selection intermediaries to present diverse viewpoints in result recommendation. This can be in the form of preventing one side of view from overwhelming the result recommendations such as dealing with bombarding and fake news. It can also in the form of providing diversity to be obviously noticed in the result recommendation such as in the period of election and referendums, or in the controversial issues. The principles of net neutrality and impartiality can be supported by an implementation of the so-called ‘diversity by design’ which is another measure to be imposed on selection intermediaries to achieved exposure diversity.

#### b. Diversity by design

Diversity by design is a systematic approach whereby exposure diversity is embedded into the underlying technology or the entire architecture of selection intermediaries, from the very early design stage rather than being bolted on afterwards or ignored. By implementing exposure diversity at the design stage, selection intermediaries have the legal duty to design their services to contribute to the promotion of exposure diversity. The concept of exposure diversity has various aspects so there are a number of ways that selection intermediaries could design their services in order to encourage exposure diversity. Depending on the underlying conception of exposure diversity, technological design highlights the different aspects for nudging people towards more valuable and diverse choices. In this thesis, exposure diversity has been classified into the forms of: (i) discovering the difference, (ii) exposing to diverse media outlets/speakers, (iii) facilitating comparison, and (iv) promoting serendipity.

The implementation of diversity by design in legal obligation and the regulatory system will nudge the relevant stakeholders (such as policymakers, the private sectors

and scholars) to develop a practical guidance and technology in the way towards the exposure diversity goal. Also, by embedding technological design into law (although legal provisions may be a broad and open standard), the relevant stakeholders will eventually develop technical standards for practical application.

At present, there are a number of research relating to the concerns about exposure diversity in other academic fields. These research are not only the study in technology sciences but also the study in multidisciplinary areas such as social, behavioural, political, media and communications sciences. Depending on the underlying concerns of exposure diversity, these studies examine different causes, effects and related factors of exposure diversity. Therefore, the imposition of diversity by design in the regulatory system will open the area for the knowledge from other academic fields to assist lawmakers and policymakers in framing future diversity by design strategies to reach the exposure diversity goal.

Law can encourage people to expose themselves to more diverse content by obliging selection intermediaries to design their services in a way towards the exposure diversity goal. Legal provision alone is not an effective way to shape the conduct of individuals. Technology can also be a supported instrument for solving exposure diversity problems. In other words, an understanding of the interaction between law and technological structures is an essential precondition for exposure diversity to be achieved. Therefore, selection intermediaries should be obliged to the diversity by design application in order to actively design their algorithms, functions and screen features in facilitating people to consume more diverse choices.

### c. Media literacy

Lastly, this thesis proposes that selection intermediaries should have a legal duty to promote media literacy in order to empower people to be exposed to more diverse content. This is because, to effectively achieve media literacy, practice in every life is more important than formal education. Most internet users learn by trial and error. Therefore, the do-it-yourself approach is a much more important source of learning the skills to access a wide range of diverse media. In this regard, selection intermediaries can assist the skills and knowledge of people to access more diverse content by raising the awareness of citizens with regard to the operation of the platform and technical policies. Much of the awareness-raising could be accomplished by informing citizens during their

normal use in everyday life via explanation or providing an array of tools to allow the general public to have hands-on experience. The environment where people are informed, practised and educated in (the extent and diversity of) daily selection intermediaries usage are decisive in learning the broadest of media literacy regarding exposure diversity skills.

One of the potential strategies for selection intermediaries to encourage media literacy is informative approach. The potential roles of information provision are various. It can notify users about functions, screen features and instruction guides of services. It may nudge people to be aware of the risk of their behaviour and filter bubbles. Also, it can empower users by informing about the broader implications of their choices and possibly even encouraging the valuable choices. Once this information is provided, the audience can protect their own interests by selecting the content that are relevant and valuable to them.

For example, selection intermediaries can provide notifications to inform users about the functions of their websites which have some risks on exposure diversity, such as ‘Unfriend’ and ‘Follow’ features on Facebook. An explanation box can be appeared when users point or click a particular function or a warning can be popped-up to describe the risk of filter bubbles or the reduction of a variety of information presented before confirming to operate such function. Besides, these notifications can be appeared when users adjust their settings of the intermediaries and when selection intermediaries themselves change the default of their operations. Also, notifications should be provided when selection intermediaries launch a new function which has an effect on the way diverse content exposed to people.

Another way to promote media literacy is the provision of information about user’s usage behaviour or patterns of consumption in selection intermediaries. This can be done by summarising data of users’ behaviour in a form of infographic. By revealing the data about their usage, users will become aware of their own biases and the bias that the system has. They, then, may consciously decide to explore items from other areas by changing their behaviour. Consequently, it will open the avenue for discovering new interests.

In conclusion, selection intermediaries i.e. search engines and social media are the tools people rely on in order to find and select what they consume in this information overload environment. Influencing by filters, ranking and targeted recommendations,

these new selection intermediaries determine the consumption behaviour of people and the viewpoints which are actually exposed to the audience. Considering the power of selection intermediaries, they have a potential to influence over people's exposure to diverse media content by controlling the findability of content. Therefore, the effects of selection intermediaries on exposure diversity and the justifications to regulate selection intermediaries to promote exposure are worthy of concern.

This thesis proposes that media law can take a positive role to create the conditions which encourage people to exploit selection intermediaries in order to effectively expose themselves to diverse content. In particular, there should be the obligations imposed on selection intermediaries to have an active role and duty to assist people to expose themselves to more diverse content. These active duties can be achieved by the following legal instruments: (i) the principles of 'net neutrality' and 'impartiality', (ii) diversity by design, and (iii) media literacy. These three measures complement each other; applying these principles to selection intermediaries concurrently will reach the ultimate accomplishment of exposure diversity. Therefore, selection intermediaries should be regulated by these approaches in order to safeguard exposure diversity.

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