# Using Assistive Technology in care homes and community settings: a discourse analysis of text and talk in three cases of evaluation reports

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No part of the material offered here has previously been submitted by the candidate for a degree in this or any other University

# ABSTRACT

Assistive Technologies (AT) are widely heralded as key means of providing “the next generation of care”, saving older peoples’ care costs by facilitating self-care, rather than depending on paid and family carers. My contrasting experience as a researcher in care homes and with older people has led me to question the ways in which such claims were and are made in media and research discourses.

This study had two starting points relating to how I had engaged as a researcher in this area. The first, was my search for ways to recognise challenges to researchers engaging people in research conversations, in unfamiliar topics such as care technology. The second, was to recognise how older peoples’ and carers’ voices may not be heard, when introducing such technologies in care.

These critically examined uses of AT discourses in a two-phased study. The first, examined discourses used in three evaluation reports. The second, examined interview transcripts from interviews for one study, CHATS. Phase 1 used Discourse Analysis (DA) to locate evaluation report text in relation to wider discourse organising frameworks for using AT. Phase 2 used Discursive Devices Analysis (DDA) to identify how CHATS study participants used Discursive Devices, in interviews, to position themselves as using AT.

These accounts showed people using DDs to counteract loss of respect and power as care institutions introduced AT into daily living.

People involved in using AT in care did not present themselves as passive recipients of either ATs or of research encounters but as working to resist stigmatising processes in introducing AT in practice. Findings point to new directions for research involving people and care technology.

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## Acknowledgements

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# CHAPTER 1

## BACKGROUND: Assistive technology in the 21$^{st}$ century

Assistive Technology (AT) has been heralded as the means of providing “the next generation of care” in the early 21st century, increasingly discussed in the media and by policymakers and service providers, as there are ever more older people with complex care needs entailing disability or impairment, but fewer family carers widely available to help manage these needs (Berry & Ignash, 2003); (Freedman et al., 2006). As a carer magazine predicted in 2012 (see Fig.1.1), “Robots could improve lives” of older people living in the community and care homes. But we may want to question whether substituting impersonal technology for human contact, can provide adequate personal care. Seeing who poses this question and who can discuss it as a topic shows very different consequences for all involved.

**Fig 1.1 – Caring UK magazine, September 2012, Issue 196, p.1 “Robots could improve lives” (Musgrove, 2012)**

September 2012

Caring uk

incorporating homecare

no.196 • £4.75

The Number One magazine for the care sector

Robots could improve lives, claims study

By Dominic Musgrave

ROBOTS can improve the quality of life of people living in care homes, a researcher at the University of Salford has claimed.

Antonio Espingardeiro has been bringing robotic cats, seals and humanoid robots to a series of retirement homes in order to address the isolation and boredom often felt by their residents.

He said: “The robots are a novelty at first. But they are also less threatening than entertainers or other people who come into homes to interact with people.

“And since you can programme them, I’ve been able to make sure that something different happens every week, so the visits never become stale.

“Robots aren’t the only solution to this growing issue, but they can be a

For a technologically-driven approach to succeed, assumes that AT can be easily developed for personal, individual use, whatever the need. In contrast to such a picture of easy development, while working as a researcher on a number of studies relating to introducing AT in older peoples' care, I encountered interpersonal and organisational research challenges when people repeatedly described many problems in trying to come to terms with assistive technology (AT), while trying to use it in their everyday lives. This suggested it could be valuable to find out why AT providers and users might discuss or even contest using AT in such contrasting terms.

Much literature on the uses of assistive technologies (Scherer, 2012) appears mainly to address practicalities of equipment in use (Arthanat et al., 2007). This seems to take for granted that users will have an unproblematic relationship to any piece of AT equipment, so that if they are given enough of the "right" kinds of information they will readily be able to use it to support themselves or others, to perform an activity that they could not otherwise do (Jewell, 2013; Jutai et al., 2005). However, in my researcher jobs since the 1990s, in care homes and with older people receiving community services, I found I was repeatedly encountering people living and working in care who were expressing frustration in their attempts to make AT work for them.

When I looked further into people's experiences of trying to put AT into practice in health and social care (Steventon et al., 2013), it highlighted that there are very different types and levels of users of AT: individual staff and service users, other interest groups, managers and organisations, all with their own purposes for using it (Steinfeld et al., 2010). Such purposes seemed often not to be met, for all sorts of reasons. This raises challenges for explaining why all these groups engage with AT, and whether they see being able to engage as mainly concerning practicalities.

Contrastingly, in projects where I worked as a researcher interviewing and sometimes observing people talking with each other in hospitals, care homes, their own homes and other places, I noticed how they were talking very differently from each other about how and why they were experiencing care, including using care technologies. This included using terms and language I had been encountering in academia and carer provider organisations in designing care research projects. This, in turn, alerted me to the relevance of attending to the discourses everyone was using in building and carrying out care and research about care. Attending to discourses meant recognising people could have very different styles and topics of conversations to support their interactions, leading them to express distinct topics and priorities recognisable to some people and not others in their community. This has been seen in relation to care activities as helping build distinct “discourse communities“ (Borg, 2003), which might explain some kinds of working together but also some areas of opposition and resistance to collaborating, Thus, I began to understand language did more than provide lexical, syntactical units to convey information on practicalities. It was something which was also being deployed in discourses which people use actively express their own purposes in their everyday lives.

This means discourses do not simply provide neutral descriptions of people or events. I became more aware of the relevance of discourses to how people were actively working together (or resisting) care. This was based on my trying to make research work with people who I saw being faced with many conflicting understandings and discussions of practical dilemmas in care, especially when new technologies were being introduced. For me, the practice-related definition of discourse provided by Fairclough (Fairclough, 2001) as combining texts with interactions and contexts, helped show how people use discourses actively to do things. Discourse analysts such as De Fina et al. stress how discourses are part of interactions and will affect how to analyse discourse: "*Social categories may be used by the analyst only when it is clear that they are important to participants in an interaction in that they are directly or indirectly invoked by them*" (De Fina et al., 2011). Such interactions produce both knowledge and practices. Hall and Gieben have therefore described discourse as being "*about the production of knowledge through language. But … since all social practices have meaning … all practices have a discursive aspect*" (Hall & Gieben, 1992). All Critical Discourse Analysis (CDA) approaches see discourse, not only as use of language, but also as social action (Chilton, 2005)

I was repeatedly alerted to how, when older people, particularly those living with dementia, are brought into discussions of reasons for using AT, talk about this is usually about "keeping them safe" by way of for instance, monitoring devices (Beech, 2008). So this raises further dilemmas and ambiguity about how to act and talk respectfully and inclusively with this group of people (van den Heuvel et al., 2012) about this topic. Whilst using such discourse can help reassure people who care for them, it raises questions about whether it invades the privacy of the older person (Baldwin, 2005; Zwijsen et al., 2011). It can also mean that the carer puts so much faith in technology that they overlook basic everyday social monitoring, which can be much subtler and individually-tailored to events at the time, reported by Roberts (Roberts et al., 2012) . The person with dementia, in many ways, may already live in their own virtual world, so monitoring or virtual care may actually not be so appropriate if they are to stay more connected with their own and other people's lives (Bonner Steve, 2012).

When older people are included in representations of the AT world, it often seems to be in terms of making adaptations to their environments, such as wearing fall alarm pendants. Such equipment presents their world as consisting more of task-performing objects, often replacing people. Rarely does the equipment seem to be used to support older people's social play or learning, to promote ways in which they can be active or enjoy themselves with others on their own terms(Borg et al., 2012). The idea of integrating AT into health, social services and education is compromised if people or organisations do not also have resources to sustain meaningful and motivating social relationships. The 21st century is a time when even 'essentials' may not be easily accessed through public benefits and services. This means providing AT items for older people to support their play or learning may be defined by governments and providers as 'non-essential', even though such items may promote activities, wellbeing and health. Therefore, AT in older people's care may take very different forms, justified in very different ways.

One approach to show how using AT items is being justified, is to use discourse analysis to explore how these groups use different discourses to identify, explain and justify their social practices, including coming to use AT. Moser has noted how discourses can be used by people to describe to each other, and to the outside world, socially meaningful reasons why they are using AT (Moser, 2006). People outside care work settings (such as researchers) who may be reporting on others' activities for particular purposes, such as evaluating AT use, may also in their turn draw on these different discourses to report how those purposes are presented as being achieved. When I realised the usefulness of understanding more about the variety of discourses being used both by people involved in AT and by those evaluating its effects, it encouraged me to look more closely and critically at how AT use was being promoted to promote the interests of distinct "discourse communities", suggested by Borg (Borg, 2003) as possibly conflicting.

In examples of the cross-purposes seen in such promotion, one effect of the use of terms such as "advanced" by companies and organisations may be to mislead people into choosing a piece of equipment that may not fit their individual needs. This can be very costly for purchasers and users in terms of money, time and added frustrations when they find they are not actually able to use the item as advertised (Phillips & Zhao, 1993; Jorgensen & Philips, 2002). Being 'persuaded' to use AT equipment may even, in some ways, limit the person from developing their own strategies for overcoming their disability (Shakespeare & Watson, 2002), which might very well help them to develop more effective physical and mental ways of increasing their independent living (Brownsell & Bradley, 2003; Burrow & Brooks, 2012); (Pressler & Ferraro, 2010). However, turning my attention to the nature of the different groups involved in older people's care means recognising how different experiences of care will relate to needing care, working in care, giving care, managing care and funding care. Care homes researchers such as

Lee-Treweek (Lee-Treweek, 1997) have shown how the discourses of care home auxiliaries articulate conflicts they have to manage when carrying out the “dirty work” of personal care of older people, whilst resisting stigma when talking about it elsewhere by distancing themselves from these difficult details. This makes it obvious that the power of different groups involved in older people’s care will be very unequal, giving some less chance of being heard or seen or even talking about it, to influence what AT may be used and for what purposes.

Understanding the relationship between deploying discourses and reflecting power positions is clearly therefore important here. Critical discourse analysis has helped relate discourses to managing power through interactions and practices in particular settings, as Fairclough argues (Fairclough, 2001). This may be relevant to examining practices relating to AT in care settings. As I have noted earlier, much writing on AT seems to focus on instrumental issues but ignores issues of power, even when talking about enhancing older people’s control through AT (Ding et al., 2003). Many researchers from Foucault (Foucault & Gordon, 1980) onwards have powerfully conceptualised the specific relationship between discourse, power and technology. Guta (Guta et al., 2012) later explicitly notes how the work of Foucault can illuminate the power issues expressed in debates around telecare. Positioning AT as beneficial and “pastoral” has been similarly challenged by Nygren (Nygren & Gidlund, 2012).

Exploring the different discourses around using AT may therefore be important for detecting conflict between people with unequal power, and therefore unequal voices, to influence how they can gain and control different types of AT in older people’s care as users, carers, professionals, managers and providers. People using discourses can express and promote different positions for themselves and others in engaging with AT.

I therefore wanted to build a critical, qualitative understanding of how people may have deployed different discourses around using AT to serve differing purposes in unequal care relationships. (Mason, 2002); (Silverman, 2013).
Involving myself in this form of question meant that I was implicitly positioning myself and my research as both outsider and insider in the field of research and in my relationships to the questions people and materials about using AT in older peoples’ care. This means that I am building a distinctive position as a researcher - my positionality, reflecting my world view, and the ways I went about carrying out research tasks in a social and political context, as argued by Holmes (Holmes, 2020). I therefore begin by now describing my involvement with three pieces of evaluation research whose texts will be the main concern of this thesis. Everything I have discussed so far here, illustrates my personal and working concerns as well as my close involvement with both the topic and the materials I will be using in this thesis. This will create questions for what I need to explain about how my study focus developed and implications for bias in how I address this in my thesis in shaping my research activities, my analysis, and my findings. This is especially relevant for my study where I am focusing closely on how people position themselves, other people, the many changes in their lives relating to assistive technology. I examine my researcher positionality more fully in relation to my choice of discourse analysis as my approach in Chapter 3 on methodology.

## 1.1 Researcher background to this study: producing ATiCHo, TELEHEALTH and CHATS AT evaluation reports

My involvement in research examining various kinds of support being provided for people with long-term conditions meant I found I was repeatedly confronted with how such experiences were being presented as personal and organisational challenges during providers' attempts to introduce AT into care settings. Such AT projects often seemed to bring to light problems people were having in trying to come to terms with the technology, when embedding it in their workplaces, homes and everyday practices of living (Butterfield & Ramseur, 2004). The impact of AT on established life routines often seemed to be to disrupt, as well as support, productive outcomes (Lehoux et al., 2004). I saw and heard people describe how fitting AT into their lives meant having to build new relationships and ways of communicating, not just with a person but also with an object - the piece of equipment that was meant to assist them in some way (Butterfield & Ramseur, 2004); (Cartwright et al., 2013)

In the projects concerning AT in care that I worked on, I was aware of people referring to publicity for AT by commercial and service providers (see Fig 1.1), but also more knowledge-based information from support organisations such as the Foundation of Assistive Technology (FAST) (which provided a UK database for many years but ceased when its government funding stopped). This type of information defined AT very simply as an umbrella term that could include any device *"to help the person to perform tasks that would otherwise be difficult or impossible(Boger et al., 2014)"* . But manufacturers also often defined AT more grandly as a "life changing technology", even claiming it could support the person to regain “normality”. As in Fig.1.1, AT is regularly presented by government and provider organisations as the next generation of aids now available to support people’s activities in everyday life. The World Health Organization (WHO) has presented AT as potentially contributing to enabling people’s continuing independence in their living environments despite disabilities (Boger et al., 2014; Organization, 2020; Organization., 2001). The WHO regularly reports on world population access to appropriate AT (e.g. World Health Organization, 2020). However, such routine positive claims seem to be contradicted by major research trials, such as the findings of the Whole Systems Demonstrator project in the UK (Giordano, 2011) and accompanying qualitative studies (Sanders et al., 2012). Some of the confusion seems to come when trying to decide what specific piece of AT best serves an individual’s purposes and why. Talk of technology in our society can present it as universally ‘better’ because ‘more modern’. But ‘more modern’ does not guarantee being automatically useful in the case of any particular person’s needs or wishes (Procter et al., 2014); (Ravneberg, 2012), especially if there are shortages of money, equipment or provider time to match a person’s needs.

Such limits in function and resources may also make AT a troubling subject to discuss in providing care, because professionals in such services know they often cannot justify providing precisely what somebody may need. If individual professionals cannot take full responsibility for providing specific, appropriate AT as recommended (Scherer, 2002); (Scherer, 2007), this may make their professional responsibilities ambiguous. I often found, when involved in setting up research interviews to evaluate AT provision, that final accountability for organising AT seemed to be ‘elsewhere’, with no easily designated headline department or named specialist person to discuss AT as a service with me.

The discussions I was having when trying to locate and set up appropriate interviews, seemed to flag up limitations in discourses available to potential participants, here AT providers and users, to refer to and manage issues in using AT, which might be presented as problematic. This also called into question how AT might be reported as being used.

Reflecting on these ambiguities and tensions raised by discussing uses of AT in practice suggested that it could be valuable to closely and critically re-examine some examples of texts linked to my previous work in evaluating AT (Caldas-Coulthard & Coulthard, 1996). Evaluation report texts and records of interviews used in producing them could provide critical case materials for identifying how different discourses can be used to present AT in very different ways, as an object for discussion by different stakeholder groups in health and social care.

I therefore decided to begin by examining discourses arising from three reports of earlier studies in which I was involved in evaluating assistive technologies used in health and social services. The main text of each of these is reproduced in the Appendices. I had joined with evaluation research teams in writing up these reports as follows:

i) to introduce AT in a group of residential care homes (ATiCHo) (Jepson, 2009) (see Appendix B)

ii) to introduce telehealth AT to people with respiratory disease and with cardiovascular disease (TELEHEALTH) (Cross, 2008) (see Appendix C) and

iii) to compare the effects and costs of introducing AT for managing incidents such as falls in care homes (CHATS) (Fordham, 2010) ((see Appendix D)

Re-examining these reports would enable me to look at ways in which descriptions in text (reports) and talk (in interviews used to build the reports) of using AT might be used to create various specific effects. For example, these might include people or organisations actively using ambiguity when promising outcomes that might or might not be possible to bring about for participants in care settings. In such ways, discourses can be seen to create complex ‘knowledge’ about AT in everyday relationships. People could be using and discussing AT systems in different ways, yet also see them reported as “one system” of unproblematic support (Ripat & Booth, 2005). Examining whether different discourses are being used here to realise different purposes may show how and why confusion and frustration might be created between people trying to discuss dealing with the additional unforeseen complications that AT raised for them in their daily practice. It could provide uniquely insightful data on how and why people involved were reporting such experiences in text and talk to help promote specific purposes (Coffey, 1996).

I began by focusing firstly on discourses deployed in the three evaluation reports chosen and then secondly, on discourses found in transcribed participant accounts which provided some of the data informing those reports. This could help identify ways in which people could and did use discourses to establish and sometimes challenge the social worlds of AT.

When I was carrying out research within these three projects, I had been continually aware I was encountering different and conflicting issues in conversations and accounts of participants in organisations. When I started re-reading these reports and accounts, not as factual statements or judgements, but as examples of applying discourses, I began to see they reflected ways in which people and organisations may have been actively realising their own many and varied purposes when taking part in these projects.

I therefore re-read the reports from the three evaluation studies that I had been involved with and had contributed to designing, collecting, data analysis, and reporting. I aimed to re-read these reports alongside a review of the wider literature of AT and methods of researching these. Re-reading these reports after some time and for a different purpose made me conscious of the issues of presentation and construction, firstly of the reports themselves, and secondly, of the AT itself as an object of discussion, confusion and contestation between the groups involved in promoting and using AT. My research focuses therefore shifted onto the discourses used, firstly in constructing these report documents, and how these may have reflected discourses in the wider society, and then, secondly, how these discourses may or may not be relevant in how discourses were used by people I had interviewed to collect their experiences of using AT. This redirected my research activities to critically re-examine these materials through secondary analyses, firstly, of the report documents and secondly, of interview transcripts on which the reports drew. A critical analysis of uses of these discourses therefore needed to be informed by literature which could evidence the recent context of political, cultural, policy and technological issues arising in AT use.

Examining the discourses participants deployed would help reframe participants' uses and practices of both AT itself and of evaluating AT, as personal and active, rather than impersonal and passive users and providers, which much of the literature seems to promote. A critical examination of these discourses would help locate them within the political, cultural, policy and technological influences and settings in which these discourses are used. As a researcher, who has to build respectful relationships with people often experiencing difficulties in receiving and managing care, it seemed like a good way to take their expressed concerns seriously. This might involve identifying these concerns in evaluation reports or in research conversations.

Setting up such a research examination needs to therefore start with a literature review of political, cultural, policy and technological issues shaping representations of how assistive technologies are used in health and social care services.

The following chapters report why and how I designed and carried out this examination, and what this might tell us about people framing their activities in relation to starting to use new AT in care, and in research looking at such uses. This will take a critical approach to examine how different participants may use discourses to voice their views and positions in the context of evaluation research on AT. How may this help us to question why AT cannot automatically be framed as “the next generation of care”?

## 1.2 Thesis chapters

This thesis is organised in the following chapters:

- Chapter 2 – Literature review of political, cultural, policy and technological issues shaping representations of assistive technology (AT) use in health and social services.
- Chapter 3 – Methodology and methods
- Chapter 4 – Findings from Phase 1 study: Examining representations of assistive technology in health and social care services: a discourse analysis of evaluation reports of ATiCHo (Jepson, 2009), TELEHEALTH (Cross, 2008) and CHATS (Fordham, 2010)
- Chapter 5 – Phase 2 study findings: Developing discourse analysis using discursive devices (DDs) to identify DDs and how CHATS evaluation study speakers used them to represent uses of AT
- Chapter 6 – Discussion
- Chapter 7 – Conclusion

# CHAPTER 2

# Literature review of political, cultural, policy and technological issues shaping representations of Assistive Technology (AT) use in health and social services

## 2.1 Background to this study: reframing evaluation reports of assistive technology initiatives in terms of discourse

In this chapter I review research literature relating to how assistive technology (AT) has been used to support older people's health and care. However, my interest in this is not to establish a truth about how useful or effective such AT support is, but rather, to examine ways in which the literature has framed uses of AT for evaluating it. This means I am not seeking to systematically review positive or negative outcomes, but to question how such judgements are being made in text and talk about uses and users of AT. Taking this approach directs this research to reframe how identifying issues of power can emerge consequently through discourse, here meaning the language that people use to present or downplay what they do and want to do in their social situations.

AT has been heralded in media and policy presentations as a new means of widely providing "the next generation of care" in the 21st century, as numbers of older people with complex care needs increase and fewer family carers live with them (Berry & Ignash, 2003; Freedman et al., 2006). For this to be plausible assumes that AT can be *easily* developed for personal, individual use, whatever the need may be. Much of the literature describing the uses of AT (Arthanat et al., 2007); (Berry & Ignash, 2003); (Scherer, 2012); (Holthe et al., 2022) focuses on the practicalities of equipment in use. This takes for granted that users will have an unproblematic relationship with any piece of equipment and thus be easily able to use it to support themselves or others to overcome physical limitations. However, people's relationships with AT in any society will be driven by the specific political, cultural, policy and technological developments in that society. These relationships shape how such developments are relevant to and controllable by them, raising, for example, surveillance issues (Whitaker, 1999) and identifying the power issues inherent in discourses relating to technology. The action context for these developments over the last two decades needs to be more closely examined in relation to wider literature, to help understand the power-related nature and consequences of the relationships depicted when people, such as care home residents, staff and managers, use AT in practice. These more problematic issues may or may not be obvious in the different ways of using AT that may be evaluated in public or in private.

My initial approach to this literature was shaped by my experience of working as a jobbing researcher on projects evaluating AT in practice in people's homes and care homes. I became aware that AT and users of AT were depicted or presenting themselves in distinctive ways, and I saw that not all these ways were reflected in the reporting of these projects. From 2007 to 2012, I was involved in three research studies which evaluated and reported initiatives to introduce AT into care settings, to provide diverse kinds of support for older people with long-term conditions. These projects examined:

1. The introduction of telecare AT into a group of residential care homes (ATiCHo report) (Jepson, 2009)

2. The introduction of telehealth AT with people with respiratory disease and with cardiovascular disease (TELEHEALTH report) (Cross, 2008)
3. Comparing the effects of introducing telecare AT for managing incidents such as falls in care homes (CHATS report) (Fordham, 2010)

## 2.2 Framing the literature review

I therefore set out in my literature review to describe and review key dimensions of contexts of AT use that affect the ways that AT, including telecare and telehealth, may be represented when being used in health and social care settings. People may resist as well as accept new developments like AT, and political, cultural, policy and technological issues will have informed the ways in which AT use has been discussed and presented. Therefore, this review needed to cover recent literature on:

i) The political context shaping issues which may have enabled or prevented ways of discussing AT use.
ii) Cultural practices affecting AT use specifically in health and social care settings, which, in turn, inform and are informed by discourses.
iii) Policies governing AT use in care delivery in health and social care settings.
iv) Technological issues shaping individuals and organisations AT use.

I therefore searched for UK and international research studies and policy papers linking politics, culture, policy and technology with assistive technology use and assistive technology practice with older people. I searched databases for publications over the 28-year period, 1995-2023, during which AT has come to prominence, using the search terms [assistive technolog* AND politi*; AND telecare OR telehealth OR telemedicine; AND sociology* OR cultur* OR social practice*; AND social polic* AND old* people* AND old* adult*] in ASSIA, Business Source Complete, CINAHL, EBSCO, ERIC, IBSS, MEDLINE, PsycInfo, Science Direct, Social Sciences Citation Index. The searches produced a range of research, studies, theoretical papers and chapters, government and other organisational policies, policy commentaries and guidelines, and technical guidelines. Searching only on assistive technolog* produced 648 publications, of which 195 were focused solely on technical characteristics of equipment and I excluded these, while keeping any that related to design, assessment for, uses and outcomes of the technology (86). None of the publications I found explicitly linked politics to assistive technologies, although 29 covered policy-relevant topics such as disability rights, empowerment control and surveillance, while 93 publications linked policies, guidelines, and commentaries to AT. I then grouped these to identify recurrent topics, which I have focused on to structure the review. I read abstracts for each of the papers found and categorised them by broad study topic area, i.e., politics, culture, policy and technologies, to create the four sub-categories that I used to group all the papers. This created a structure for examining the key issues considered here. This chapter summarises key findings of the review.

The next section (2.2) identifies and discusses political issues raised in the literature relevant to the development and use of AT in health and social care. These political issues help critically frame writing on the cultural, policy and technological issues shaping AT use. The sections that follow (2.3-2.9) summarise these themes in this literature, to review how the political issues identified in section (2.2) have informed representations of AT use.

## 2.3 A political context for AT

A wide debate continues about whether introducing AT into the everyday lives of people with disabilities and people receiving long-term care has empowered or oppressed them (Zwijsen et al., 2011). Yet little public political discussion of equitable access to AT for older adults seems to present AT as anything other than being of benefit (Mattison et al., 2017). This may lead us to question which groups do or do not have power to articulate the terms of debate about the nature and extent of support being provided via AT. This section therefore examines political influences which may have shaped recent decision-making in relation to AT, how it is presented as desirable (or affordable), and whether this foregrounds the pursuit of technological rather than face-to-face forms of support. Examining these political issues may help us review how different AT solutions on offer are presented in terms of whether and how they represent the interests of different stakeholder groups. Disability groups have led the way in articulating the view that rights to support for independent living are fundamental and that AT may be an important or even critical means of providing support as a right of people with disabilities (Smith et al., 2022). However, in the case of older people with acquired disabilities, it is not clear whether they see independent living, which can be tiring and isolating, as such an empowering choice (Harvie et al., 2016), nor whether they give as much priority to being involved in shaping AT (Goodwin, 2016).

This calls into question the limits of the involvement of older people in articulating any political agenda through which AT is presented as basic for maintaining their independence. This section discusses the political issues of rights, empowering independent living and power-related risks, which in turn are constantly mentioned in the literature as linked to AT, as follows:

a. Disability and rights to support for independent living
b. AT use as empowering independent living and choice
c. Risk, surveillance, and potential abuses of power through AT use

The issue of gaining support for independent living for all groups has been championed by the disability movement, which has articulated the rights of people to be supported, addressing issues of their empowerment to shape decisions at social and individual levels. Since the 1970s, many people in the disability movement have argued for a social model of disability, which defines the limitations associated with disability as socially determined through social ideas and practices, creating disabling environments, rather than physical impairments and medical conditions essentially creating the problems that people experience (Barnes et al., 2002; Hughes et al., 2002).

More recently, however, Shakespeare and Watson (Shakespeare & Watson, 2002) have argued against depending solely on such an 'ideological' and sweeping social model, which disregards any aspect of physical impairment. Rather than disabled people being identified as one separate group, they recognise that *"all living beings are impaired – that is, frail, limited, vulnerable, moral – we are not all oppressed on the basis of this impairment and illness…" (Shakespeare & Watson, 2002: p.25).*

Shakespeare and Watson argue against the social model if this leads to always simply rejecting health or care interventions which could improve quality of life, for example in cases where embodied disability is associated with physical and psychological problems, such as pain (Shakespeare & Watson, 2002). They see assistive technologies as a potentially new means to help create more enabling environments for people with a wide range of disabilities. Shakespeare and

Watson also suggest that AT solutions can better address complex individual needs for support when not simply rolled out in standard formats. If ‘provider systems’ are to reduce risks of discrimination and exclusion, it is important to understand the different contexts within which individuals’ needs for AT arise. Jutai and Tuazon (Jutai & Tuazon, 2022) argue that AT has also been found to promote social connectedness for older adults disconnected by the recent pandemic, but their scoping review questions how far AT actually reduces loneliness. Their findings suggested AT could reduce loneliness and strengthen social support, but did not find clear evidence for AT reducing health inequities between older adults.

Some disability political groups seem to assume that such risks of inequity in access to AT can be overcome by defining AT as a universal right, as seen at a global level by the Convention on the Rights of Persons with Disabilities (CRPD) (Szmukler, 2019). Studies by Borg et al. suggest that rights appear to entitle *“people with all kinds of disabilities of both sexes and all ages …assert a right to demand available, accessible and affordable assistive technology”* (Borg, Larsson, et al., 2011a: p.162). But they argue that for this to be fully implemented, it would also require a system that includes processes of assessment, fitting, and training. Borg et al. also noted how little scientific evidence there is to support any such developments, nor about how appropriately they are actually being implemented in each country, especially in developing countries. Most existing evidence and guidelines focus on just one type of AT or one type of disability, and resource limitations have led to inequitable access to services, especially for people with visual or cognitive impairments and especially in developing countries

(Johan et al., 2009). They also argued that without a national, holistic, coordinated approach, delivery would be fragmented and inefficient.

The CRPD strategy for building a holistic approach to AT was critically examined by Borg et al. in their content analysis of its AT provisions, to identify its scope and limitations for appropriately formulating policies and strategies. They found that although the CRPD required governments to take "*appropriate measures*" (Department of Health, 2014) in relation to AT, it did not mention AT specifically as something governments needed to provide, nor that people with disabilities should have the right to demand it. Borg et al. argued that without this right, people with disabilities may not be able to exercise other basic rights, such as access to "*adequate food, clothing and housing without using assistive technologies for cooking, eating and dressing*" (Borg, Larsson, et al., 2011a: p.163). They argued that it was not enough for governments to state that they only had limited resources, when they could still meet their United Nations requirement if they acted to use resources available from the international community (United Nations, 1990, Office of the High Commission for Human Rights, Article 2. Para. 1). UK policymakers have commented if such a body as the CRPD does not wholeheartedly promote appropriate AT access, then an unregulated market with little governance or ethical constraints is likely to allow manufacturing and commerce to sell a hotchpotch of equipment, with ad hoc procurement and supply (Department of Health, 2014), and no organisation to support individuals' specific needs, laying them open to market manipulation. The work of Borg et al. (Borg, Lindstrom, et al., 2011; Department of Health, 2014) shows that, even if a global policy for disabled people's rights to AT is agreed, evidence is still needed for any resulting changes in practice to be made in different societies, cultures, and circumstances. This is particularly relevant as varying state policies and market forces will affect the power of different groups and individuals to assert such rights in practice. Review of the Global Report on AT (Smith et al., 2022) shows that to realise the rights of people with disabilities, adequate AT provision by states is actually critical, not a luxury option. Providing AT through commercial markets may not be equitable nor adequate. These issues of equity and rights to AT in support of independence will therefore shape and be shaped by state regulation, market forces and public demands.

## 2.4 AT use as empowering independent living and choice

State policies, together with market forces (certainly in the UK, where AT has been strongly promoted), can be seen to firmly shape how far in practice AT use can empower groups and individuals to live independently and to exercise choice. Pressures to use technology may limit the availability of other choices or even raise new dilemmas of social control (Shakespeare, 2005; Shakespeare & Watson, 2002), even constraining the person using it from developing their own strategies for overcoming their disability in ways that could actually be more effective for increasing their independent living (Burrow & Brooks, 2012; Pressler & Ferraro, 2010). Until 2010, provider-led studies rarely examined the influence of telecare on users' autonomy or loss of personal contact in the care relationship. The idea that this does not matter to older users and carers is contradicted by the focus group study findings in three England localities (Pressler & Ferraro, 2010); (Percival & Hanson, 2006) with older people, carers and professionals, which revealed their concerns about these specific issues, not just targeting reducing risks and costs. Telecare has enabled virtual home visits, reminder systems and home surveillance to be directly provided to service users in their homes. The focus groups questioned whether this could be more inclusive for marginalised or vulnerable groups and saw this as reducing clients' ability to choose with whom and when to be in contact. They were concerned that more automated environments might inadvertently produce “dependent, learned behaviour” (Percival & Hanson, 2006): p.895) and if provided indiscriminately could even be coercive, reduce choice and lead to equipment being abandoned. The focus groups were also concerned about loss of human support, where paid or unpaid carers had been visiting to carry out everyday tasks or welfare checks, including conversations which connected people with the wider world. If telecare only provides single functions, this could also cut out interpersonal interaction from increasingly socially isolated lives (Latour, 1992). While telecare might reduce the need for some services, it could raise demand for other aspects of those services which are being taken away, creating new types of dependency, as seen in the contradictory outcomes found for telehealth in COPD (Brunton et al., 2015). In recent studies relating to carers' experiences of AT, reviewed by Marasinghe (Marasinghe, 2019), caregivers reported that AT could decrease their physical burden and safety risks but increase psychological burdens, such as checking routines and worries. This lack of evidence for AT helping with physical tasks and care but not improving social wellbeing is confirmed in the systematic review of 16 studies with older adults living alone by Song and van der Cammen (Song & van der Cammen, 2019). Disability studies of technical communication, such as Palmeri (Palmeri, 2006), help critically analyse how technical communication practices construct normalising discourses, which can “marginalize the embodied knowledges of people with disabilities” (Palmeri, 2006), specifically excluding the embodied experiences and knowledge of safety and usability issues in AT narratives and ‘expert’ discourse communities.

When older people are depicted in AT services, this seems to be more in terms of adapting them to their environments, such as wearing pendant alarms, showing AT as task-performing objects. Rarely is AT seen to be used to support older people’s play or for learning new ways to be active or enjoy themselves on their own terms (Cash, 2003); (Cash, 2004). More evidence may be needed to reveal how these groups can be shown engaging with AT for themselves. A study of citizen panels in Canada by Mattison et al. (Mattison et al., 2017) reveals how many diverse needs can be identified when older people themselves discuss these needs.

The evidence presented here suggests that for an AT support system to be truly comprehensive, and not devalue service users’ basic human needs, it might need to articulate many more complex needs than early AT discourses have predicted. Truly supportive AT systems also need to address risks and abuses of power, such as abusive surveillance, which may undermine any empowerment gained through AT.

## 2.5 Risk, surveillance, and potential abuses of power through AT use

Political claims for AT use include that it enables independence and allows people, particularly vulnerable groups, to exercise freedom and choice. Yet this is contradicted in practice, because it is precisely these groups whose freedom AT may reduce, if the carers or organisations involved present AT’s main function as to provide safety. Many AT devices are associated with monitoring and surveillance of the person, as reviewed by Martínez et al. (Martínez et al., 2006).

Modern images of surveillance in the literature have drawn on the ideas of Foucault (Kelly, 2015), who argued that structures (originally prison buildings) reflected a “political technology” dedicated to giving power to institutions of the state. Inspectors remain unseen while those monitored are put into a “state of conscious and permanent visibility”. Whitaker (Whitaker, 1999) and Sorell and Draper (Sorell & Draper, 2012) argue against the idea that AT predominantly reflects the “surveillance state” (Sorell & Draper, 2012), rather it is more a means of reducing spending on healthcare staff who might make personal contact in the course of monitoring or safety checks. If AT replaces forms of healthcare that would meet patients’ medical and psychosocial care needs in more face-to-face ways, AT risks “deepening their isolation” (Sorell & Draper, 2012). So, here again any gains in independence through remote monitoring rather than constant visits need to be set against the harm of potentially greater social isolation, particularly for older people. Bentwich (Bentwich, 2012) builds on Sorell and Draper’s (Sorell & Draper, 2012) arguments, noting not just the threat from a ‘Big Brother’ state, but also from the many privately-run firms (“Little Brothers”) concerned with telecare and IT, which access, store and monitor information on using their products that can also be put to new uses, such as monitoring people’s movements and invading their personal liberty and privacy. Guta et al. (Guta et al., 2012), however, propose that Foucault’s ideas on power do not just have repressive effects, but also help to produce new structures, processes and discourses, showing how technology can be useful as well as dangerous. They note that Foucault argued that analysing governmentality with biopower enables us to connect questions of politics with ethics and ultimately to issues of power. Guta et al. (Guta et al., 2012) see this as relevant for finding the balance between using telemedicine to remind relatively able older people to take their medications, compared with letting a distant carer know that they had not done this. Such dilemmas present implications for individuals' autonomy if used to "[identify] individuals who fail to maintain treatment adherence and to generate information that could be used for purposes outside of healthcare monitoring." (Guta et al., 2012). If AT collects such information, this can allow some powerful groups to decide whether to restrict the freedom of "some 'risky' groups, like individuals with mental health diagnoses that bring them into conflict with the law" (Guta et al., 2012), citing (Jacob & Holmes, 2011). This might well include older people with dementia. Rhetoric about personal freedom and choice associated with AT can even put a burden on people to be 'self-motivated' and to make "rational choices by improving themselves and accepting responsibility" as Nordin et al. note (Nordin et al., 2021) when placing their decision-making within a wider decision ecology. This fits with the increasing popularity of discourses in policy and the media which promote or almost enforce 'healthy ageing' whilst sometimes negating the agency and safety of older people, as seen in the most recent pandemic (Gilleard & Higgs, 2021).

Telehealth, telecare and other technologies constitute means of monitoring and supporting people to live independent lives. Yet AT also offers the facility for powerful organisations to monitor and target unconventional and/or vulnerable groups. Government, organisations and commercial companies might use such data to check and control populations to conform to specific ways of behaving. As seen earlier, in the Percival and Hanson (Percival & Hanson, 2006) study, privacy and surveillance are indeed often prime ethical concerns for service users, carers and others interested in safeguarding human rights. Telecare surveillance, as well as supporting care, can generate large amounts of data without individuals' consent, for government agencies about individuals' functioning and needs for attention, which could even be used to contest their claims for welfare and benefits, working against their expressed wishes and interests. A cross-sectional study of 374 older adults using AT (Grden et al., 2020) found that monitoring older people using AT can also be used by health professionals to predict fragility and allocate people to a category of declining functional use, again perhaps contradicting their claims to independent living.

Discourses surrounding AT use may therefore either highlight or seek to paper over issues of risk, surveillance and potential abuses of power in using AT, which may in turn be reinforced by and generate cultural practices, policies and technological issues.

## 2.6 Cultural practices, policies and technological issues affecting the use of AT

AT is therefore not simply a set of inanimate technologies but can be seen to have implications for people's lives, where cultural values and practices shape their views and experiences of such technology as acceptable, useable and ethical in the area of care. The earlier literature review of political issues highlighted the importance of discourses of power, control and autonomy to people and organisations to confront the impact, promotion and uses of AT. These are in turn reflected in the literature on cultural factors shaping AT use.

Government, commercial and provider organisations' claims that AT can provide appropriate care should be examined in the context of wider cultural practices. Drawing on sociological ideas has helped to explore how different groups use different discourses to articulate their reasons for using AT (Moser, 2006; Percival & Hanson, 2006), combining concepts from the sociology of technology ("technology-in-practice") (Lehoux et al., 2004): 619) and the sociology of health and illness. Some discourse analyses (Demers et al., 2009); (Dorcy, 2013) have highlighted how texts may support particular interpretations of social practices and certain groups' interests, while limiting the visibility of others (Fairclough, 2003). Such analysis will encompass issues of power, market forces and structures of health systems, as well as user-professional relationships and experiences over time in a range of settings. Language, imagery and symbols linked to different discourses can be seen to present differently as 'facts' (Speed, 2006). Woolgar (Woolgar, 1991), when discussing the Sociology of Scientific knowledge (SSK), critiqued the "turn to technology" (Bijker, 1987) for not sufficiently considering technology as text (Klein & Kleinman, 2002). A range of AT experiences may be visible in the texts through which different people represent AT. Recent studies, for example Lynch et al. (Lynch et al., 2022), have highlighted how older people's accounts may prioritise symbolic reassurance in wearing AT monitoring devices like pendants, even if they doubt their technical effectiveness. This is very different from policymakers and providers stated expectations of how people use them in practice. This shows that talk about using AT accomplishes many other cultural purposes, rather than simply achieving care tasks, both at a personal level but also at organisational levels.

A review by Greenhalgh et al. of organising discourses in telehealth and telecare in texts and events draws on ethnographic and documentary evidence, produced between 2008-11. It identified four distinct "organising" discourses that key stakeholder groups use purposefully. The authors found stakeholder groups used Modernist, Humanist, Political Economy and Change Management discourses to communicate with each other, but also for particular purposes in quite separate domains of interest. Each discourse attributed some characteristics to AT while downplaying others. Greenhalgh et al.'s (2012) study findings show how each organising vision for introducing a new technology may help mobilise distinct communities of stakeholders with differing values to engage or not with the technology. Recent ethnographic studies, such as Siren et al. in Norway (Siren et al., 2021), linked different parallel narratives from residents, care home staff and municipal providers to show how residents' priorities are almost absent from municipal and staff expectations of gains in efficiency or staff fears of AT being used to save resources and cut jobs.

Evaluating AT is therefore not simply about technology but draws on discourses connecting uses of AT to cultural values and practices which will shape different groups' views and experiences of engaging with such technology.

## 2.7 Policies governing AT use in care delivery in health and social care settings

Using AT also raises dilemmas for respecting and being inclusive of care-related AT user groups (van den Heuvel et al., 2012). Whilst surveillance may reassure carers of vulnerable people by consistently monitoring their health and activity states, this may be at the cost of the older person’s privacy (Baldwin, 2005; Zwijsen et al., 2011). Carers can also rely so heavily on technology that they underrate basic, everyday social contacts, and their ability to connect people more closely to their own personal contacts (Roberts et al., 2012). Monitoring or virtual care may therefore not contribute to the social inclusion and connectedness of older people (Bonner, 2012). Such contradictions should be taken into account when addressing issues of care policy. Recent studies such as Chen’s (Chen, 2018, 2020) have highlighted the need to appreciate people’s emotional experiences in using AT, which may or may not encourage them to engage with it, regardless of AT’s potential supportive features. A recent critical discourse analysis (Fuchigami et al., 2022) of 51 articles in six Canadian newspapers, presenting AT use for older adults with vision loss, showed the need to change discourses to include this group as active collaborators to frame their uses of this AT. The critical review in this chapter contextualises AT-related policies in terms of political debates, cultural drivers and discourses. It has been suggested that technological care presented as ‘solutions’ may even disconnect older people from the interactions which enable them to control their own lives. The UK Government identified that its population needed more health care, as an ‘ailing’ population shifted to an ‘ageing’ population, so challenging its ability to provide fair but free health care support. The 2010 DH White Paper *Building the National Care Service* emphasised the key principle of promoting telecare and telehealth as innovations to provide new means of care and reassurance, allowing people to remain living in their own homes (Department of Health, 2010). The Darzi report (Darzi, 2018) presented telehealth as ‘core’ for people with long-term chronic illnesses to access personal care support, and called on the NHS to also promote technological innovation. The media and policymakers’ discourses have therefore shown AT as key to providing 21st-century care, with ever more older people with increasingly complex care needs arising from disability or impairment, but with fewer carers (Berry & Ignash, 2003; Freedman et al., 2006).

This talk of technology can therefore present AT as universally ‘better’ because more ‘modern’ (one of the discourses identified by Greenhalgh et al. (Greenhalgh et al., 2012), but using this talk does not actually evidence its usefulness for any particular person’s needs (Procter et al., 2014; Ravneberg, 2012). More recent studies have identified how multiple forms of support may be needed for AT to meet personal needs. Qualitative studies of Hispanic people’s uptake of AT in Puerto Rico, to address cooking, safety and home tasks, suggested that agencies should also provide culturally and gender-relevant AT education and better access (Orellano et al., 2021; Orellano-Colon et al., 2018; Orellano-Colon et al., 2022). The studies found that fewer women can afford AT or the costs of using it, and that men may prefer different means of meeting their functional needs. Such detailed local examples show how people’s views will differ about what is ‘better’ in AT according to their culture and circumstances.

Changes are also being called for at the AT system level. Meeting complex care needs now requires policies to bring about integration between health, social care, systems such as housing, and telehealth and telecare technological systems. Studies by Clark and Goodwin (Clark, 2010; Goodwin, 2010) point out huge gaps between the high levels of telecare use in social care (already 1.7m users in England by 2010, leading in Europe) and in health care (only 5,000 users at that time, despite being promoted by the Whole Systems Demonstrator (WSD) pilot programme, discussed below). Goodwin identified that a major problem for health systems to use AT was the lack of 'interoperability' of technology with service sectors. More recent studies of AT health care policy take-up, such as Gjestsen et al. (Gjestsen et al., 2017), confirm that a multilevel approach to understand requirements needs to integrate macro-level external motivators and sponsors, meso-level work force drivers and micro-level personal change motivators. But the studies conclude that there are many challenges to planning such changes in primary care, as many organisations are not ready to manage these approaches at most levels.

Woolham et al. had actually noted earlier (Woolham et al., 2006) how person-centred approaches to technology in dementia care could incorporate more understanding of the needs and abilities of individuals, including people with dementia. Doing this would allow this technology to be used in a wider range of care settings and more appropriately with a wider range of groups in need of more complex care. These predictions were borne out by Berridge et al. (Berridge et al., 2014), who compared the progress of public policy in relation to technology-based innovation for independent living in the UK, Scandinavia and the US. They suggest that a successful model for such technological innovation needs to include ***all*** the following components: consumers to attract resources; innovations which disrupt contemporary practices; appropriate payers and, importantly, having a supportive system of regulation in place. Despite wide agreement that AT will help reduce costs, they argued even then that technological innovation is running ahead of systems of policy and regulation linked to public funding. This leaves individual consumers having to make choices without support and manufacturers eager to proliferate new open markets for *selling*, rather than meeting either person-centred needs or publicly prioritised needs. A discourse analysis of online product reviews (Park, 2019) showed how digital consumerism in Western countries is constructed as promoting economic, technological and social power, perhaps for systems, but not necessarily for individuals.

All sections of this review so far indicate that whatever AT systems are currently in place actively limit and are not geared to promote good, responsive communication and experiences around everybody's needs. The discourses these systems circulate may foreground the independent living benefits of AT policies, yet make *less visible* the human, social and bodily costs that such policies aim to tackle.

## 2.8 Technological issues shaping the AT use of individuals and organisations

In contrast to the range of socio-political issues identified in this review, much of the AT-specific literature focuses on more narrowly defined technological and use issues concerning the assessment of people's need for AT support and outcomes, including effectiveness and cost-effectiveness of using AT. Much literature on the uses of assistive technologies, for example Scherer (Scherer, 2012), addresses the practicalities of equipment in use (Arthanat et al., 2007). This assumes that we know what support people need, and that AT equipment can meet it. The great variety of AT being developed has challenged the ability of organisations and individuals to identify and select suitable products. Gower (Gower, 2014) reported the development of an AT taxonomy to help stakeholders gain access to accurate information on products, to help ensure products are selected that best match individual needs. More recently, AT developments have included cognitive and robotic assistants, as reviewed by Martinez and Costa (Martinez-Martin & Costa, 2021) However, many limitations remain to be recognised and addressed if AT technological developments are to be integrated with social interactions and discourses, which are often not presented alongside details of the technological features of AT. This shapes the discourse found in the more technical literature, which seems to work to exclude the older people involved, even when the AT is designed and provided for their independent living.

Much of the health and social care professional AT literature seems to take for granted that users will have an unproblematic relationship to any piece of equipment, so that if they are given enough of the “right” kinds of information by professionals, who have assessed the suitability of the equipment for them, people will be able to use it to support themselves or others to perform an activity that they could not otherwise do (Jutai et al., 2005; Jewell, 2013). But there are very different levels and types of users of AT, all with their own purposes: individual staff and service users; other interest groups; managers and organisations (Lenker & Paquet, 2003), which makes it complex to examine people’s experiences of putting AT into practice in health and social care settings, where many groups interact and may talk about their experiences differently (Steventon et al., 2013). Claims are made for assistive technologies (including social care technology, telehealth, and telemedicine) bringing benefits that guarantee better health and social care. Yet evidence is lacking for clinical or other benefits being realised in the use of AT with clients. Recent Cochrane Reviews (Currell et al., 2000);

(Flodgren et al., 2015) compared telemedicine with face-to-face patient care and argued a need for more studies to evidence both effectiveness and also appropriateness for individuals. As seen above in Siren's study in Norway (Siren et al., 2021), evidence produced by such studies, however, focuses more on examining system applications and their efficiency, rather than their appropriateness to people's experience and priorities in ageing when receiving care as patients. Some studies (Flodgren et al., 2015; Halvorsrud et al., 2021; Stowe & Harding, 2010) found that while older people might see safety advantages from AT monitoring and facilitating calls for help, if living alone in declining health, they also saw themselves as losing personal autonomy in using AT. Stowe and Harding (Stowe & Harding, 2010) argued that such technologies need to be fine-tuned to personal needs, not just to blanket system priorities. However, as seen in the politics literature, addressing such needs challenges AT governance systems to monitor themselves as systems, and not just monitor their users.

A review of usability questionnaires for telemonitoring and AT highlighted that no questionnaires covered all relevant usability criteria for older people with cognition issues (Yaddaden et al., 2019). Recent advances in body-worn technologies to digitally monitor body functions of people with dementia, reviewed by Holthe et al. (Holthe et al., 2022), found AT support being presented as prompting, monitoring at home and keeping people safe when outside. But this is very much described as 'doing to', rather than involving the older person in more actively choosing what to do. Similarly, a study of non-contact sensing technology designed to detect and locate visually impaired and older people has been presented as 'doing to', rather than involving them in using the equipment (Anaya et al., 2021). The importance of older people being able to exercise agency is recommended in a systematic review of 19 RCTs of ATs for older people aiming to support autonomy, communication or safety, which showed personal disease-management devices having most effective disease-related outcomes, yet showing no effectiveness for people who have significant or severe impairment (Fotteler et al., 2022). In contrast, Abri and Boll (Abri & Boll, 2022) have proposed an “Actional Model” for older people engaging with AT to achieve their own or joint health goals. This underlines how the active involvement of older people cannot be ignored in defining stated goals and coping strategies to successfully manage these systems. Much AT technical literature looks at ways of measuring outcomes of AT use, typically ‘effectiveness’, as in the review mentioned above by Fotteler et al. (Fotteler et al., 2022). Other measures typically include ‘usability’ and ‘acceptability’, as for instance in a study of online decision support systems in Canada by Chenel et al. (Chenel et al., 2016). An Australian study by Auger et al. (Auger et al., 2022), also of online decision support systems, used a three-point scale to rate stability for this system’s recommendations. New measures have had to test these systems’ reliability, validity and ‘applicability’, as in the work of Auger et al (Auger et al., 2018) on the Assistive Technology Outcome Profile for Mobility (ATOP/M), which aimed to examine its applicability to measure ‘impact of mobility’ AT for older wheelchair users in increasing their activity and participation. Such studies can be seen to focus more on the abstract qualities of the measures, rather than the importance and meaning of these outcomes for the lives of the people involved in using the AT.

More recently, there have been increasing attempts to use AT to encourage collaboration between AT users and designers, often including Mixed Reality (MR) interfaces, as reviewed by de Belen et al. (de Belen et al., 2019) for 2013-2018. This found three factors supporting collaboration using MR: techniques offering non-verbal communication cues to users; cooperative techniques to divide more complex object manipulation into simpler tasks to be used between different users; and user cognition studies to help reduce cognitive workloads when completing tasks and helping users engage with tasks. This suggests developing AT may be presented and planned to be more collaborative but will needs skilled and knowledgeable researchers and designers who have a discourse which foregrounds such collaboration processes in explicit terms.

Botsis et al. (Botsis et al., 2008), in reviewing the use of home telecare for people with a wide variety of chronic diseases including diabetes, heart failure and cognitive impairment, suggested that while people were generally satisfied with home telecare, they preferred it when combined with conventional health care delivery. So, while the cost savings for travel and people’s time were clear, the researchers identified multiple issues of ethics, law, design and usability which needed to be regulated, before AT interventions could be safely introduced more widely.

Adya et al. (Adya et al., 2012), from the Inter-university Centre for Cognitive Sciences in Rome, reviewed the range of AT service delivery models then in use as: charity-based; community-based rehabilitation (CBR); individual empowerment; entrepreneurial; globalisation and universal design models. They found each to have useful features but also drawbacks. Their review showed the AT evidence base as fragmented, and every society promoted top-down systems, rarely considering the needs of users and carers. Adya et al. (2012) argued for service providers and policymakers to use these review findings to build a comprehensive framework for models, to help synthesise the AT evidence base in order to be able to compare and evaluate the effectiveness of models and specific AT. Again, it is not clear how this framework might include the voice of users and carers in framing ‘effectiveness’, when making these comparisons.

Over-confident assertions about AT being ‘useful’ have been repeatedly and extensively contradicted by findings of major evaluations and research trials, such as the Whole Systems Demonstrator (WSD) project, which produced pragmatic, cluster randomised controlled trial findings for the cost-effectiveness of the Whole Systems Demonstrator programme for telehealth in England. This study recruited 3,230 people with long-term conditions, of whom 1,673 completed a questionnaire on the acceptability, effectiveness and costs of their care (845 randomised to receive telehealth). The results did not show Quality of Life Year (QALY) gains for patients using telehealth and also found costs associated with telehealth were higher than without (Cartwright et al., 2013; Henderson et al., 2013). Another part of the WSD programme (Steventon et al., 2013) examined the effectiveness and cost-effectiveness of telecare, recruiting 2,600 people with social care needs from 217 general practices in three areas of England, again finding no significant reduction in service use demands for people receiving the telecare intervention. Accompanying qualitative studies, for example Sanders et al. (Sanders et al., 2012)) and Beal (Beal, 2011), identified practical disincentives for users and carers. This suggests that designing AT services and equipment cannot omit involving people and the realities of what they see and talk about as practical (Berridge et al., 2014). A later systematic review of barriers to the adoption of AT also highlighted cultural factors playing an important part in older people’s decisions, commenting, “The negative attitudes that are most frequently associated with technologies, such as the so-called ‘gerontechnologies’ specifically targeting older adults, contain stigmatizing symbolism that might prevent them from adopting” (Yusif et al., 2016) . Examining the different discourses of organisations and people, when they are deciding on and discussing experiences of using AT, may provide ways to interactively consider more fully what makes a better and more practical fit for AT in older people’s lives.

A DoH overview (Department of Health, 2015) of research and development work relating to AT in 2014-15 lists 81 research projects underway in that year (categorised as ‘Business BIS’). It is striking that these findings, commissioned to inform Parliamentary discussion of Section 22 of the Chronically Sick and Disabled Persons Act 1970, reveal health outcomes being clearly reflected, and shown to be important to the AT research community. However, it focused on health outcomes being achieved through technological research based on business, engineering and health science insights, rather than establishing common ground with users first. This seems to bear out the earlier conclusion on policy in this review, that technological development research has been outstripping the investigation and development of matching social and policy innovation to regulate technology in the interests of AT users and wider society, which could enable open discussion. At a personal level, Abri and Boll (Abri & Boll, 2022) found people’s stated beliefs and motivations, and expectations about effective means for coping with difficulties in their life situations, may all need to be presented and appreciated if AT is to be adapted so it is experienced by older people as useful in their lives. Doing this may require less technology-promoting and more experience-based discourses.

## 2.9 The political, cultural, policy and technological context of AT use: Discursive implications

Assistive technologies continue to be widely promoted in the discourses of government policy, commercial and service organisations, which present AT as providing a different form of care that can help extend the autonomy of people seen as dependent. The three AT evaluation reports that I was involved in producing reflected potentially conflicting discourses about AT in the wider society. By examining political influences relevant to these discourses, this chapter has identified complexities and contradictions in claims made about how AT can empower people and in what terms. Yet the discourses promoting and evaluating the case for AT largely downplay the voice of the people who are the intended beneficiaries. Considering the cultural, policy and technological issues that inform these discourses will be vital for framing the study for this thesis, so as to uncover how and why different people involved in care may present using AT in differing lights and perhaps not always as beneficial for everyone involved.

This initial examination of the political, cultural, policy and technological context for discussing uses of AT has repeatedly shown strong and widespread top-down pressures promoting technological provision. This has led to discussion of the political issues raised in the literature relating to the development and use of technologies specifically in health and social care. How may these political issues critically frame writing on cultural, policy and technological issues? The political issues identified in Section 2.1 have informed representations of AT use as they shape discussions of older people, providers and policymakers’ claims to rights, independence, and managing risks, including surveillance. These policies have emerged from wider culture, policy and technology concerns, but often without evidence of how they are being used and presented in practice by different groups. Such discourses have framed these developments in positive ways, perhaps benefiting provider organisations tasked to develop new systems, but not attending closely to the views and experiences of those expected to use AT in their lives. This means such provision may run ahead of the means of governance to fully involve individuals in shaping and applying AT in a way they can control. Older people's needs for care and support for their disabilities are at the centre of these developments, but voices articulating their interests are much less likely to be found. This suggests the need for a study which can critically examine discourses surrounding the evaluation of AT implementation and which people use to position AT in talk and text. It provides a sound reason to question the specific uses of discourses in the three evaluation reports, and in transcripts of AT users' voices which contributed to the text in one of these reports, to find out how AT users were themselves exercising discourses. Examining the reports therefore provides the starting point of this study. The next chapter considers the methodology and methods for carrying out a critical examination of uses of such discourses in textual and spoken communications of interviewees.

# CHAPTER 3
# Methodology and Methods

## 3.1 Introduction

*Methodology is to be understood as a transdisciplinary process of theoretically constructing the object of research (Bourdieu & Wacquant, 1992; Fairclough, 2013a, 2013b).*

This study aims to critically examine discourses surrounding the evaluation of AT, which people have used to position uses of assistive technologies, in talk and text. This chapter therefore considers methodology and methods for carrying out a critical examination of uses of such discourses in textual and spoken communications of interviewees in evaluation reports from projects in which I had past involvement as a social researcher in multidisciplinary health services research teams. As Fairclough (2013a, p.13) noted, citing Bourdieu and Wacquant (1992), theoretically constructing the object of research must start by considering what kind of methodology is needed to examine discursive constructions in positioning AT in talk and text.

This chapter starts by comparing different discursive methodological approaches: discourse analysis (DA), critical discourse analysis (CDA) and discursive devices analysis (DDA). I then discuss how I applied particular forms of discourse analysis to how people use text and talk about uses of AT. To critically examine such uses means looking at what these may tell us about management of power and positioning in text and talk about using AT. This gives a way for us to identify and understand how people may position themselves and AT when discussing using assistive technologies, including positioning around competence. I also go on to discuss competence in relation to the methodology I have proposed here to examine how people use discourses to present themselves and others using AT. The final version of my methodology is then summarised for setting up two study Phases, Phase 1 and Phase 2, the findings for which are presented in Chapters Four and Five.

Deciding on methodology makes it possible to identify appropriate methods for examining the discursive constructions used to position assistive technologies (AT) use in talk and text. After an introductory discussion, this chapter sets out how data sources and relevant data were selected for the Phase 1 study of three evaluation reports. It moves onto critical discourse analysis (CDA) methods of data analysis for the Phase 1 study. It then considers data sources and data selection in the Phase 2 study of interview transcripts underpinning the CHATS evaluation report, and then the data analysis methods of discursive devices analysis (DDA) particularly tailored to the Phase 2 study data. This considers how CDA was applied to examine AT-related interviewee transcripts in Phase 2 and explains how and why a discursive devices analysis (DDA) was chosen and developed here to do this. Ethical issues and permissions are then reported. Finally, there is a summary of the resulting methods used.

## 3.2 Methodology for examining the discursive construction of positioning assistive technologies (AT) in talk and text

Taking a critical approach to studying discourses about uses of AT means not taking for granted how the focus of research is constructed. Bourdieu and Wacquant (Bourdieu & Wacquant, 1992) remind us that the focus of research may be theoretically constructed and can draw on different disciplines.

This study aimed to critically examine the uses of discourses surrounding the evaluation of AT in evaluation reports used and linked transcripts of AT users' voices in the ATiCHo (Jepson, 2009), TELEHEALTH (Cross, 2008) and CHATS (Fordham, 2010) studies. To consider the methodological issues relevant here, I will now explain how I realised that elements of discourse were key if I was to understand, as a researcher, how people and organisations were formulating their own views of using AT so they could position it in their activities with each other and in discussing AT uses with me. I will start by introducing the way I am using 'discourse' to understand this project and its data. I will also identify some important issues of positionality raised by my multiple and changing relationship to my involvement in research projects and their data over time.

Discourse is a term commonly used to describe language used in specific ways in social contexts, including written texts and speech. Discourses enable people to represent aspects of their lives as objects for discussion in specific ways, in a sense 'fixing' the meanings given to texts and excluding other, alternative meanings. Literature on uses of AT, for example Adya et al. (Adya et al., 2012), often appears to mainly address the practicalities of equipment in use. This takes for granted that users will have an unproblematic relationship with any piece of equipment, thus if they are given enough "right" information they will be able to use it to support themselves or others to perform activities which they might otherwise be restricted from doing. Different users of AT include staff, service users, interest groups, managers and organisations, who will have different relations with AT. These differences raise questions for users and the researcher about how they describe their engagement with AT. It highlights that users may use different discourses to describe to each other and to the outside world how they are doing this. Researchers reporting on such activities for their own purposes therefore need to report on how different discourses are being used for participants' purposes.

This is an approach which is very different from many exploratory qualitative approaches which can assume that peoples' use of language is to describe and refer to aspects of an underlying reality, whether this is a world of meanings as with symbolic interactionism (Mead, 1934) or of social structures (Couch, 1984). Instead, more recent social theoretical approaches have recognised how "*the things that people say become the object of study themselves, rather than being taken as a route to discovering some aspects of an assumed underlying reality…*" (Burr, 2003: p.59). A social constructionist approach, instead, asks why people use talk in interaction and for what purposes, and what discursive devices they may use to achieve those purposes. Discourse analysis is an approach which fits here and offers methods to identify all of these.

Taking a discourse analytic approach here to understand how people were constructing AT use would therefore need to draw on sociological insights about how people define their activities for themselves, others, and for the social world. Bodies of knowledge in sociology, for example Woolgar (Woolgar, 1991) and Smith (Smith, 1987), suggest discourse (re)presents the social world as a multi-layered dynamic process of interactions, in which people use linguistic devices to build everyday knowledge, influenced by culture, which they may then deploy when interacting. Discourse analysis (DA) offers a way to identify reasons and consequences for people drawing on different discourses to present their views of using AT, both in social care and health services. Examining discourses within evaluation reports can provide a means to understand different viewpoints about purposefully using AT. This has been found useful in other disciplines, including techno-cultural analysis, to critically evaluate intersections of technology with cultural effects such as race and class (Brock, 2016).

Explaining my methodology also needed me to disclose positional issues to show where and how I may have, influenced the research. As Holmes argues, “The reader should then be able to make a better-informed judgment as to the researcher’s influence on the research process and how ‘truthful’ they feel the research data is” (Holmes, 2020) p.3). I will revisit my positionality in relation to steps in becoming involved with the different research activities and decisions I go on to discuss here, starting here with how I began to examine discourses within reports.

I therefore began this study by re-reading three evaluation reports on different types of assistive technologies (AT). These recalled for me and highlighted the many different viewpoints on using AT I had encountered in carrying out the fieldwork, and suggested several different discourses were used to construct ‘uses of AT’ as an object of discussion to be considered, commented on and judged in particular ways within those reports. Reading these reports so as to attend more systematically to identifying types of discourses found in those reports, helped me both reflect on my past experiences of those discourses, but also to see them in terms of the field of discourse analysis. This also reframed my view of these discourses as “objects of research”, and less as simply language the research team was required to use to answer evaluation research questions about AT.

Rather than seeing reports as mainly conveying findings, this highlighted how multiple discourses in this research may or may not have equally reflected voices with different interests in using AT. Placing such discourses within a framework of competing discourses relating to different interests in using AT and telehealth has been promoted by Greenhalgh et al. (Greenhalgh et al., 2012), who argued an ‘organising vision’ for using AT. The positionality I was developing, in more critically examining the uses of different discourses, encouraged me to test the applicability of the idea of an “organising vision” for using AT by comparing the ‘organising vision’ framework of Greenhalgh et al. with the discourses to be found in the reports of the three evaluation studies of assistive technologies, telecare and telehealth, in all of which I was a qualitative social researcher member of the research teams. Carrying out this comparison informed my design of a Phase 1 study which confirmed the relevance of this framework to these reports, but also raised questions about whether the interviewees might have been pursuing very different purposes in the accounts they provided in the context of the interviews and deploying discourses in these interactional contexts.

I was able to critically explore these questions in my Phase 2 study, as I had access to the original transcripts of interviews with service users, care staff and care home managers, which were the basis of the CHATS report (Fordham, 2010). This was an evaluation report where I had been a team member from the beginning of the process of designing a mixed methods study, which included a qualitative interview sub-study, where I helped design the interview schedule, conducted the qualitative interviews, co-analysed the interview transcripts and contributed to the final reports. Revisiting the interview transcripts some years later allowed me to examine how these interviewees used discourses to provide their interview accounts of their own experiences of using AT. This meant my positionality now changed from having been a team member ‘delivering the research’ by formally reporting on interviews as materials for describing ‘research results’. Now I wanted to examine these interview transcripts, not to as a means to evaluate AT, but as a means of centrally examining the discursive activity of the people I was interviewing. Doing this facilitated me to critically analyse how people from the different groups involved with AT were using the topic of AT to actively present their part in interview discussions. What emerged from examining these could then be compared to the discourses foregrounded in evaluation statements in the written formal reports.

I now discuss these methodological approaches and methods.

## 3.3 Methodological approaches: discourse analysis (DA), critical discourse analysis (CDA) and discursive devices analysis (DDA)

I wanted to understand how people used discourses to represent themselves and others when writing and talking about using AT. Discourse analysis takes the stance that people draw on and re-construct discourses as they expand, challenge or reject them while interacting. Changing my positional stance to now routinely question rather than simply report talk and discourses from the evaluation research and reports meant I would need to find an approach which could explore participants’ reasons and uses for the discourses they used. I began by comparing Conversation Analysis (CA) and Discourse Analysis (DA) approaches.

Conversation Analysis (CA) and Discourse Analysis (DA) both examine ways in which people use language. Both approaches agree that we construct and are constructed by societal and historical discourses. CA considers participants’ talk and practices, but is not concerned to uncover interpretative mechanisms and understandings relevant for the participant but focuses on the structure of talk when interacting; whereas DA is more concerned with how people may use talk for purposeful activity (Peräkylä 2011). The focus of interest for Conversation Analysis (CA) is the process and form which a conversation takes, such as turn-taking, pauses and interruptions in conversation, rather than what connects these linguistic features or what talk accomplishes in each context.

Gee and Handford (Gee & Handford, 2012) suggest using Discourse Analysis (DA) to challenge the everyday idea that when we speak or write we are just conveying information. Gee argues that when we seem to use language to convey information we are also doing things in everyday life, emphasising “the need to ask: What is the speaker trying to ***do*** not just say?” (Gee 2011). This means examining texts in more depth and in context. Chouliaraki and Fairclough (Chouliaraki & Fairclough, 2021) argue for a Critical Discourse Analysis (CDA) to address how people use discourse in speech and writing to make meanings in social processes, as a form of social action that is “socially constitutive” and “socially shaped” and not fixed. CDA does not seek to ground its analysis in linguistic detail, but encourages awareness of how language use may constitute and shape social inequalities, such as unequal access to power, privilege and symbolic resources (Fairclough, 2009). This may be relevant to critically examining common talk about AT, which often presents it as increasing access to care and resources to support independence. Using CDA can help appreciate how such assumptions may hide inequalities which actually shape access to such “social goods” (Gee 2011).

In relation to reading the reports, neither my Phase 1 (examining reports) nor Phase 2 (examining interview transcripts) studies were focused on the structure of the talk. CA therefore seemed a less suitable approach than DA or CDA.

Data in these reports and interview scripts are not from naturally occurring conversational interactions, with the structural, linguistic features of speakers' utterances and responses. Instead, it is what people use different kinds of language, including reports and talk, **to do,** when they represent uses of AT within different contexts.

DA does examine text and/or speech in the context of the purposes and uses it is serving, i.e. "language in use" as discussed by Howarth (Howarth, 2000), emphasising that analysing language in use is an activity that must be looked at in the context of use. This has been well illustrated in the work of van Dijk, on language being used in racism (Van Dijk, 1997). People use discourses to position themselves, for example, by claiming a group identity and demonstrating their appropriate knowledge of the uses of one or more discourses to support that claim (Van Dijk, 1997). So, for instance, a health professional conducting a health consultation will not be expected to use everyday discourses to discuss health issues. If the health professional is to position themselves as having authority from a qualified professional role to define the health issues in medical terms, they might avoid using everyday discourses to discuss these with their patient.

DA includes many types of analysis of text and talk. Wooffitt (Wooffitt, 2004) has identified three main types of DA: formal linguistic method analysis; Foucauldian methods; and a middle way of bridging formal linguistic methods and Foucauldian approaches. Firstly, formal linguistic methods analysts tried to identify formal rules governing real-life speech situations, such as producing different types of speech acts, as in Austin and Urmson's *How to Do things with Words* (Austin & Urmson, 1962), or like psychiatric interviews (Howarth, 2000), where patterns of discourse are used to describe and explain ways in which people in different roles (i.e. psychiatrist and client) interact in that particular context to enact those roles. Secondly, Foucauldian methods define discourses as practices, rather than objects, in the worlds that form the objects of discourses. This emphasises that people themselves actively build discourses through their social practices, which will in turn shape social relationships and social institutions (Howarth, 2000). Foucault highlighted how taken-for-granted ways of talking and writing within a culture are not neutral but serve political ends by ideologically limiting how people think and act as social beings, encouraging a critical view. A third "middle way", pioneered by Gilbert and Mulkay (Gilbert & Mulkay, 1984), bridged formal linguistic methods and socio-cultural Foucauldian approaches, to underline how scientists were not talking 'objectively' but representing themselves through different discourses which vary according to both formal and informal contexts of language use. They used the concept of "interpretative repertoires" to identify how and where specific sets of words and phrases might be used to represent scientific activities and identities in particular ways. "Interpretative repertoires" have been defined as a "*relatively coherent way... of talking about objects and events in the world*" (Edley, 2001: 64) or more broadly as culturally familiar arguments, which link recognisable themes (Wetherell, 2001). These ideas continue to be used to show how people may use discourses to connect themselves and their actions to cultural contexts. For example, Speed (Speed, 2006) describes specific discourses that mental health service users use to represent their identities as service users.

(Chouliaraki, 2008) identified how both DA and CDA relate to the “linguistic turn” which makes language more than a neutral medium for conveying information. “Linguistic turn” refers to seeing the world’s existence as a process which is “language mediated”, and “interactive’ process” exists through discourse (Wittgenstein et al., 2009). What people say, therefore, cannot make sense just as separate words with fixed meanings, but only as part of an activity carried out in the context of a social activity. Wittgenstein defined language as a social entity with social capacity, not only to depict the world in words (giving speech referential force), but also as doing things with words (giving them performative force), as Austin and Urmson argue (Austin & Urmson, 1962). This suggests that the speaker intends the language they use to have impact (“illocutionary force”) on the person it is addressed to. (Foucault & Rabinow, 1997) described the power effects of discourses and how they are used in speech, placing linguistic relationships within a particular system of “power/knowledge relations” contained within social practices, and with people asserting meaning and “truth effects” when they assert what there is. This is intrinsic to how power is produced and exercised in discourse as social practice: to structure and be structured by positions of power, made available in practices and contexts. This makes discourses more than ways of thinking about and producing meanings, rather it puts the methodological focus firmly onto what people use language to do in practice.

Common sources of data in DA are recordings of interviews between researchers and respondents. These are less detailed than those found in CA, because the DA analyst is giving priority instead to identifying how interviewees produce and use discourses in accounts in interviews, rather than the details of how interviews produce conversations.

Taylor (Taylor, 2013) defines “discursive resources” as means for ideas, representations and ways of speaking which have effects in the social world. For example, using the term ‘good mother’ is linked to specific words and activities, conveying emotional associations and implying qualities and responsibilities. Using such terms can connect with ideas and knowledge that a group or community shares, to draw on a discursive resource.

Interpretative repertoires may be a recognisable part of ‘a discourse’ and so help direct us in examining discourse data. They are particularly relevant to identifying multiple discursive resources being used and what they can imply when different people use them, which can be conflicting. The discursive resources people draw on to pursue their purposes in speaking include discursive devices (DDs), which people can use to help achieve specific purposes in specific contexts. Identifying and analysing DDs (DDA) can help identify why and how people may answer similar questions in such very different ways in context.

## 3.4 Applying discourse analysis to text and talk about uses of assistive technologies

My interest in this study is to understand how people use language to represent what they do with AT and for what purposes, rather than describing the details of writing or conversations. As discussed above, discourse analysis has been shown to offer a way to examine texts related to social practices. This helped support my development as a critical researcher. Working with a critical DA approach highlights how examples of language and statements may support some interpretations and definitions of interactions and therefore some groups’ interests, whilst also limiting the representation of other interpretations and other groups’ interests (Fairclough, 2004). This process of representation can make apparent issues of power, structures of health systems, and also user-professional relationships and experiences in diverse settings. Such processes of representing differently may be very marked in the case of media and commercial representations of AT, where dramatic claims are often made for almost instant and powerful effects (see Fig. 1.1 Caring UK magazine Sept 2012 Issue 196 p.1 *“Robots could improve lives”*) (Musgrove, 2012). Discourse analysis, in examining spoken, written and non-verbal forms of communication, can critically track how specific and different discourses may present such representations as ‘facts’ or ‘givens’.

How technology itself comes to be represented, i.e., made an object of discourse, can thus be examined using discourse analysis. Woolgar (Woolgar, 1991) critiqued the “turn to technology” because, he argued, social scientists may not have reflected enough on whether they should have considered “technology as text”, and so it is not just operating neutrally for anybody and everybody to use.

In this thesis I look for the different ways AT experiences have been reported in interviews and translated into texts, including the reports and interview transcripts I examine here, to consider how such texts can present discursive practices relating to using AT. My research considers how AT becomes an object of discussion, underlining Woolgar’s (Woolgar, 1991) perspective on technology (here AT) as text. The aim is to sensitise us to differences in how evaluators of AT may individually and severally approach, write about and discuss AT. Using discourse analysis and critical discourse analysis can identify how people may give different explanations for using AT; how they present issues of control within the social practices that AT may enable; and how these explanations can be drawn on.

Examining how people represent issues of control within social practices relating to AT may or may not correspond to official and commercial claims of supporting greater independence for users of AT. My position here was to be open to this wider range of possible claims.

To frame the starting point for this discursive focus on using AT in care, I took account of more recent research by Greenhalgh et al. (Greenhalgh et al., 2012). This identified such discourses in AT use and argued that they promoted differing worldviews on using telehealth and telecare in providing health and social care. They identified four “organising” discourses (summarised in Table 3.1) used by the main stakeholder groups involved with telehealth and telecare and in the literature relating to AT. These discourses were labelled: Modernist, Humanist, Political Economy and Change Management.

Greenhalgh et al. (2012) argue that each of these discourses is used in quite separate arenas, thus impacting on the ability of the stakeholder groups using those different discourses to communicate with each other, bringing different values and views to produce competing claims and counterclaims. I found this insightful, having encountered such conflicting positions when working on evaluation studies and reports of AT.

Greenhalgh et al. (Greenhalgh et al., 2012) describe these as an “ensemble of ideas” giving meanings, produced and reproduced, through practices associated with AT by the people using them, but presented as ‘facts’. This DA approach recognises that any text as discourse can have several interpretations, and that intertextualities may be interwoven within one expression, which Jorgensen and Phillips (Jorgensen, 2002) identify may potentially contradict one another.

**Table 3.1 Organising AT discourses: from Greenhalgh et al. 2012)**

| | Modernist | Humanist | Political Economy | Change Management |
|---|---|---|---|---|
| Philosophical position | Instrumental rationality | Phenomenology | Critical Theory | Pragmatism |
| Usual unit of analysis | Technology (product) | Person, technology-in-use | Interest group/conflict | Service model, routines |
| Assumed characteristics of technologies | Automated, "smart", agentic | May be stigmatising, constraining, failure-prone, lo-tech | Commodifying, industry bias to "hi-tech" | Focus on technology-in-use (in systems), different utility in different contexts |
| Assumptions of what people use technology for | Self-monitoring | Maintaining autonomy, aiding communication | Many will buy, few will use | Supporting routines |

These ideas offered me a starting point to address some of the contradictions I encountered between what different people and organisations said about using ATs in the evaluation reports. My positionality as a critical researcher meant I could use these approaches to more closely examine how these contradictions may have arisen in how people were using discourses to manage interactions.

## 3.5 Managing power and positioning in text and talk about using assistive technologies

Finding a way to examine how people position themselves in relation to their context in text and talk seems important in developing understandings of how people present themselves and others as being able or not to use assistive technologies. Wetherell (Wetherell, 1998) has described positioning as "*the central organising concept for analysing how it is that people do being a person in their* *conversations*." This is relevant to understand how people present themselves as competent or in control (or not) when describing using AT. My positionality in my later study meant re-reading peoples' interview accounts not as passively describing their world of technology, but as working to present themselves as competent people when talking with me. I was struck by the confusing and contradictory ways in which people referred to AT while I was collecting data for the evaluation practice. Wetherell (Wetherell, 1998) suggests attending to how people selectively position themselves and their topics of conversation, which can identify and explain where and why the selves they produce in conversation can be multiple and contradictory. Wetherell argues these reflect shifting discursive practices through which speakers and hearers engage in purposeful talk (Wetherell, 1998). Goffman's earliest work on how people present themselves in everyday life (Goffman, 1959) showed people as working in teams to produce impressions of themselves, their characters and qualities, which amount to performances of their selves. In *Forms of Talk*, he shows talk itself as a way of performing to align a person with a particular role or position (Goffman, 1981). Producing an utterance can be intended to align with people or qualities, but can, in turn, lead to others positioning themselves in relation to what this has now set up, in various ways that the speaker may or may not predict or control. In his work *Frame Analysis* (Goffman, 1975), he further developed this approach by identifying "footing" as a particular means that people use to attempt to "manage the production or reception of an utterance" (Goffman, 1981), adopting the positions of *animator*, *author* and *principal* in relation to their delivery of utterances, particularly in recounting their personal experiences.

Davies and Harré (Davies & Harré, 1999b), in *Positioning Theory*, build on these ideas offering an even more dynamic way to analyse how people propose rules to define positions using discursive interaction. This seems to offer a coherent description of how discourse is actually produced and within it “how people exercise choice in defining themselves in relation to one another through what they say and how they say it” (Wetherell, 1998). But what Davies and Harré’s ideas (Davies & Harré, 1999a) seem to assume is that there are equal relationships (Harré & Langenhove, 1999) between those using such a discourse. However, society and social interactions are not level playing fields. When multiple statuses are available, these will be made and assessed differently by each person involved in working them and not all positions will be equally available to everyone. Davies and Harré (Davies & Harré, 1999a) identify how people produce their self-definitions, moment-by-moment, as they make choices to position themselves in conversation-based interactions. This will be relevant here for framing my analysis of the transcripts of interview conversations on using AT. Marinova (Marinova, 2004) sees the notions of framing, footing and positioning as important to understand what people *do* with language. Marinova argues that while Goffman underlines the *constraints* on actors from their situation, Davies and Harré (Davies & Harré, 1999b) portray social interaction as *enabling* people to emerge as individuals in individual circumstances. Both approaches share a belief that people produce themselves and others during social interaction, and where interactions involve talk, can use discursive devices to position themselves, others and objects. This is discussed in section 3.6 more detail.

### 3.6 Identifying and critically examining positioning in discussions of using assistive technologies

I argued in earlier chapters that introducing AT into care practices seemed to be widely assumed to be a ‘good thing’ of general benefit to institutions, individuals and society. A more critical focus calls into question whether the routes technology take are ‘inevitable’ or ‘beneficial to all’. How these are developed and promoted by society and the AT industry will relate to institutions of power, such as government institutions and new systems making a financial input, to shape their inception and ideas around AT. A critical discourse analysis (CDA) to challenge such assumptions will view power as a process of positioning people and equipment, giving privilege and status to some groups rather than others, through discursive structures that people will use and take for granted to establish the promotional discourse as usual or common sense. My positionality in re-examining these discussions was to work at being open to discursive instances where people may or may not have taken such AT promotional discourses for granted.

Taking a CDA approach here would mean actively looking for the less obvious ways people may use discourses. Groups promoting AT and technology may use a discourse to present AT as being obviously a more effective and efficient means of caring for vulnerable and/or older people. Taking a critical approach would mean being open to finding opposing discourses that some groups may use, for instance, to argue that using AT may take independence away from people using or working with it. Yet such a discourse might be difficult for some groups to confidently express. Harré & Langenhove (Harré & Langenhove, 1999) have drawn attention to the moral obligations raised by claiming any position. They present positioning as a discursive means to attribute and assign moral duties and rights to the speaker and others when representing types of people and actions associated with them. This implies that people will be required to demonstrate competence of ability to meet the moral duties required when making claims to positions (Whittle & Mueller, 2012). Talking about difficulties in using AT may therefore pose discursive challenges for how individuals position themselves, perhaps as competent people or as competent employees offering care, fulfilling the duties implied. These ideas around discursive aspects of positioning and competence are applied to discussing AT use in the next section.

## 3.7 Managing positioning around competence in using assistive technologies

Technology, telehealth and telecare are promoted as largely offering unproblematic means to provide care more remotely with or without a carer necessarily present. Using new technologies requires people to develop new skills if they are to use them to produce positive outcomes. This requires developing an appropriate level of competence. This notion of competence was defined as early as Socrates (Waters & Sroufe, 1983) as a way people can expediently manage their everyday encounters and challenges as they arise. Waters & Sroufe (Waters & Sroufe, 1983) suggest this is more about mobilising personal and professional resources, such as trust in competence *in context*, than having specific innate traits or qualities like intelligence or physical stamina (Svensson, 2016). These resources therefore need to be demonstrated in social interaction, and this is done through the work of discursive positioning. Discourses will be used to identify outcomes as ‘positive and successful’ or ‘negative and unsuccessful’. Positioning is a discursive process in which competence is related to being seen (and judged) as doing something proficiently. So, discussing uses of AT in practice cannot be seen as just reporting on doing this, but also a means of demonstrating ability in using AT as adequate, i.e., demonstrating competence. There is a long history of studies such as Whyte (Whyte, 1959); Coleman and Von Hellerman (Coleman & Von Hellermann, 2011) and Foschi (Foschi, 2000), and seen in Chapter 2, which underline how in our working lives we often need to demonstrate competence grounded in discourses. This is highly relevant to understanding the positioning issues likely to arise for people when they discuss AT use. My positionality, now taking the stance of as a critical researcher, was to seek to recognise how people may or may not have discursively addressed such positioning issues for themselves, when taking part in the interviews with me.

## 3.8 Summary of methodological approach in this study

The methodological approach taken in this thesis aims to address the problem of how to identify the ways different people themselves describe and make claims about using assistive technologies in their text and talk. Discourse analysis has been chosen as an approach that can be applied to text and talk and has been adopted by Greenhalgh et al. (2012) to identify discourses underpinning an ‘organising vision’ for the rollout of AT in health and social care. This can be applied when examining the text of reports evaluating uses of AT in organisations (discussed below for the Phase 1 study of the text in three reports). However, a Critical Discourse Analysis approach offers the means to identify how people use discourses to advance their purposes in talk, and therefore what issues of power and positioning are being reflected in the talk of people using AT. Using a CDA approach can provide means to  recognise how people may represent their own and others' positions as competent in relation to the ways in which they use assistive technologies. This is applied below to the methods used in the Phase 2 study of interview transcripts, where people can be seen to talk about using AT in ways to actively present themselves and their practices in their social interactions, with me, in interview discussions.

In the Methods section I will present and discuss how we can now apply these methodological concerns to examine, in the Phase 1 study, the text of evaluation reports and then, in the Phase 2 study, the talk of individual users of AT in interview transcripts.

## 3.9 Methods for examining the discursive construction of positioning assistive technologies in talk and text (Introduction)

In the previous sections I set out the methodological considerations for the two studies undertaken in this work. To identify discourses used in reports evaluating uses of AT in health and social care, the Phase 1 study will examine discourses in three reports from three evaluation studies of AT in health and social care services organisations. I will analyse and compare these to the organising visions identified by Greenhalgh et al. (Greenhalgh et al., 2012). Following this, in the Phase 2 study, I will identify how experiences of using AT may reflect or realise dynamics of power and positioning, examining transcripts from recordings of interviews in one of these evaluations.

My research question, as developed in Chapters 2 and 3, was “How does using AT become an ‘object of discussion’ through discourses representing its use?” To develop my questions and then methods of analysis to address this, I worked ‘backwards’: first examining discourses in three completed evaluation reports (Phase 1), and then critically analysing transcripts of the interviews with participants which informed one report. I emphasise that even though the data were several years old, critically examining text and talk about using AT at that time remains relevant to identifying the dynamics of power and positioning that different groups may exercise using AT. I highlight my changing positionality in taking two roles in relation to these data. I had initially taken part in the research conversations on which the reports drew and in which the participants were responding to me as a researcher. I was also a member of the teams who contributed to the writing processes which produced the evaluation reports. So, my interest at that time was to progress these processes as actions, rather than focusing on the discursive features of either reports or the transcripts. This contrasted with my later role as critical researcher for the present study where I wanted to examine these features more fully, in terms of how people were actively producing and using text and talk for very different purposes, and often in contrast to how formal research aims were stated. As I developed my own critical discourse approach, I was not, therefore, seeking to read meanings into them nor to impose or justify them in terms of the formal commissioned research aims. By using a DA approach, I sought to minimise any sense that I was claiming privileged insights into what they meant or achieved. Instead, I aimed to provide an analytic account linked to reports and conversational data to make transparent what “things” (Austin & Urmson, 1962) they might bring to communications and interactions.

The DA approach taken in Phase 1, examining evaluation reports, defines the ‘organising vision’ presented through the discourses the written reports drew on when evaluating different uses of AT within health and care services. The CDA approach taken in Phase 2 examines interview transcripts with the aim of critically examining how members of these groups may have presented their own positions, to identify the ways they may have used these discussions to pursue their specific interests in relation to AT.

DA analysis is hard to capture in a formal guide, as it is usually demonstrated in a series of “interpretative engagements” (Appe & Dodge, 2022), with data that DA researchers use to share a sense of capturing the function orientation of a section of discourse. Potter and Wetherell (Potter & Wetherell, 1987) suggest this is a “craft skill” which relies on developing largely tacit expertise in reading text. They described eight stages in DA research but suggest these are a guide to interpreting and defining discourses rather than a fixed set of standard procedures.

Therefore, in this chapter, and in the relevant chapters (4 and 5) reporting findings, I will give full descriptions of what I did and why in the context of working with the report texts in Phase 1 and with the interview transcripts in Phase 2.

Neither DA nor CDA studies usually include a formal process of sampling but do provide summary descriptions of the relevant sources of data. Nor do they usually include reports on comprehensively applying a set of procedures to a complete wider dataset to saturation (Saunders et al., 2018). Instead, the aim is to be able to show that a type of discourse was found in the data set. (Wood & Kroger, 2000) argue that sample size is not usually seen as a problem in discourse analytic studies, because *any* sample will include many and varied “language instances”. Being able to generalise to populations is not the aim, but rather “*the generality of claims that can be made within [my italics] a particular study …*” (Wood & Kroger, 2000: 72). The emphasis is on “fine detail” and “reluctance to make unsupported inferences”.

Discourse analysts tend to take a piecemeal approach which, rather than generalising, focuses on uses of specific wordings, and sometimes also in the context relating them to specific actions. A major difference between work on defining samples in discourse analysis compared with other methods, including qualitative methods such as grounded theory, is that instead of drawing up tight sampling frames, in DA, “*the sample is not well defined until after the analysis is done; indeed, this can be seen as one of the purposes of analysis*” (Wood & Kroger, 2000: 72). These authors emphasise that in DA the interest is in the uses of language, rather than the characteristics of the people using the language; so, the units of analysis are texts or parts of text rather than the participants, which implies sampling text items of interest and not people representing populations. Thus, the starting points for sampling in my study were the texts of three evaluation reports (Phase 1) and interview transcripts linked to one of these reports (Phase 2).

The main concern in DA is to ensure the sample will include "*discourses relevant to the phenomenon of interest*", but not to make "*unwarranted assumptions about the persons who generate the discourse*" (Wood & Kroger, 2000: p.72).

Therefore, it is only the text and not the particular membership category of a person whose language is being examined in discourse analysis that will be used as the basis of selection and analysis. Wood & Kroger (Wood & Kroger, 2000) argue that any text or person who speaks to the issue at hand will do as well as any other for beginning analysis, because "*a case is not a case of the person but a case of type of text or talk, and this may not be revealed until the analysis is largely completed or at least well under way*" (Wood & Kroger, 2000: 72). So, in both Phase 1 and Phase 2, the analysis could go forward on the basis that both evaluation reports and interview transcripts provide discourses relevant to the phenomenon of interest. My positionality here meant that the phenomenon of interest here was now to provide an account of discursive features, not of events or peoples' views. My positionality as critical researcher was therefore not to identify with any particular participant (nor my interests at the time when working as a team researcher) involved in the original projects.

The next sections summarise data sources and selection in Phase 1, followed by the analysis methods. These are followed by the same for Phase 2. Lastly, I summarise the ethical issues and permissions relating to these data.

## 3.10 Data sources, data selection and data analysis in Phase 1

The aim in Phase 1 was to distinguish what discourses were used in three evaluation reports: ATiCHo, TeleHealth and CHATS. These reports were chosen as providing text to start to investigate how specific discourses may have been used in some places, by some people, for some purposes. I did not propose to use these reports to provide an 'insider commentary'. Instead, I examined them as simply a set of documents, which I already had some acquaintance with in terms of their structure and content. This approach was focused on informing my search for how discourses about using AT may have been used.

Wood & Kroger (Wood & Kroger, 2000), along with most DA theorists, suggest a definition of the sampling approach here, i.e. not being set before the analysis, because further readings of the selected text will lead to these being modified in relation to how much variability is found between sections of text. This is different from saturation in grounded theory, where the endpoint of *comprehensive* sampling is set when no new categories or inter-relationships can be found (Saunders, 2018). In DA, rather than seeking to exhaust all possible categories, the researcher judges whether sufficient data have been found to make and justify a reasonable and interesting argument.

All three evaluation reports gave accounts of evaluations of the process and effects of:

i) Introducing AT in a group of residential care homes (ATiCHo)

ii) Introducing telehealth AT with people with respiratory disease and with cardiovascular disease (TeleHealth) and

iii) Comparing effects of introducing AT for managing incidents such as falls in care homes (CHATS).

The writing in these accounts provided the materials for the kind of comparative analysis of discourses suggested by Greenhalgh et al. (Greenhalgh et al., 2012). To focus analysis across all three evaluation reports, I compared Greenhalgh et al.’s defined discourses with the discourses used in the evaluation research reports, to see how these they may have been reflected.

The evaluation reports were produced by groups of researchers (including me) for groups (of service providers) when my positionality as at the time as a fixed-term contract researcher meant my first interest was to provide a well-produced professional evaluation document. Using DA later gave me a way to represent discourses that could instead be related to the expressed concerns of all groups involved when the reports were produced. Addressing these discourses and relating them to groups’ concerns provided a purposeful way to examine the three reports.

## 3.11 Brief descriptions of the data set: three AT evaluation reports to re-examine

### *i) ATiCHo (Jepson, 2009)*

Norfolk County Council and the Care Services Improvement Partnership (Eastern Area) funded a project to investigate the potential of AT in care homes supported by Preventative Technology Grants (PTG). They then commissioned an evaluation to be undertaken by a team of researchers led by Jepson (Jepson, 2009). The project was supported by the Commission for Social Care Inspection (CSCI). The aims of the evaluation were to identify the perceived impact of AT on quality of life, risk and care provision for care home residents and carers. Data was to be gathered only from care assistants working in the participating care homes, to avoid ethical concerns of gaining consent from residents with cognitive difficulties. Five care homes took part, two owned and managed by Norfolk County Council, the others privately owned. They varied in size, profile of residents and location within the county. The AT varied according to the individual home. Both local authority homes had installed a new call alarm system and AT aiming to reduce falls, improve client-carer communication and the quality of care. The private homes had introduced individual devices with the aim of improving residents' quality of life and engagement with individuals, as well as encouraging innovative ways of working for staff.

This was a qualitative evaluation. Data were collected using questionnaires and semi-structured interviews with care home managers about ease of obtaining equipment, how they assessed and matched a person to a piece of equipment, and how had they been engaged with the project. These data were analysed alongside detailed field notes made by me as research associate.

Interviews with staff reflected their uncertainties about ordering specific equipment they thought they needed, how to match it up with the needs of older people in their care homes, and how to get the family support and also the technical support to keep the equipment working.

This report provides a specific example of reporting from care home managers and staff on what tensions arose from failures to set up reliable systems for ordering and identifying suitable equipment, how it worked and how to match items to the needs of individuals.

This organisational evaluation did not require ethical approval. I no longer have access to the original dataset, only to the report. My analysis of this report in the present project focuses on the discourses used in the text, to draw on and summarise talk about selecting equipment and choosing and using outcomes.

### *ii) TeleHealth Project (Cross, 2008)*

A multi-agency group made up of Norfolk Primary Care Trust (PCT), Great Yarmouth and Waveney PCT and Norfolk County Council Adult Social Services Department designed the ‘TeleHealth Project’ in Norfolk. This piloted the use of telemedicine technology, TeleHealth, with two groups of patients during 2007 and 2008. COPD and heart failure patients were provided with TeleHealth equipment under the supervision of specialist nurses from their area. This service provision was evaluated by a research team from the University of East Anglia during 2007-8, led by Cross (Cross, 2008). The mixed methods evaluation presents both quantitative and qualitative data. My role in this evaluation was to help provide a primarily descriptive analysis, reporting literal accounts of telehealth equipment and processes provided to patients and how and when they used it over their day.

Selected patients were interviewed in their own homes about the effects of the AT on their lives, and the two specialist nurses were also interviewed about the effects on their service. This report describes how service users actively tried to make the equipment fit in their everyday lives and how different people had different relationships with the equipment. Some found it reassuring, but for others it added other worries or burdens, such as the equipment in their homes might intrude on space for living their previous ("pre-equipment") lives. These accounts suggested that AT could be adding to, as well as easing, burdens.

The reported findings highlighted for me in the Phase 1 study how people's reported talk represented the decisions they were taking on whether and how they used the equipment and discussing whether and how they actually found it enabling and supportive.

### *iii) CHATS (Fordham, 2010)*

This evaluation was commissioned in 2010 by Norfolk County Council, to consider how installing AT equipment in care homes in East Anglia affected the numbers of falls recorded in care homes before and after its introduction. Residents were categorised as either receiving 'traditional care' or 'dementia care', within seven different County Council-run care homes. The evaluation was a mixed methods cross-sectional design to examine the impact of AT on recorded falls and response times in each patient group in care homes. Three groups were identified, based on the length of time AT had been available in each care home. At some care homes AT systems had been installed for either six months or twelve months. Others had no AT, but a call system with pagers for the carers. Alongside this was an economic evaluation of the new AT system. I collected interview data from a manager, two care workers and two residents in each care home, to find out about their experience of using the system in their care home.

This evaluation provides an example of AT being introduced and used over time in a range of care homes, collecting the views of residents as well as staff (which did not happen in the ATiCHo study). Again, my role at that time was to report literal accounts of AT equipment and processes being issued to staff and residents and how and when they used it over their day.

This study had ethical approval from UEA Ethics Committee in May 2010. I had access to the original dataset of anonymised transcripts and the report was in the public domain. My analysis will focus on how staff expressed needs for information and reassurance that they were using the equipment correctly, and whether they could get technical help to solve the day-to-day problems they encountered with the equipment.

The next section describes the methods of discourse analysis used to examine data in the Phase 1 and Phase 2 studies.

## 3. 12 Methods of discourse analysis (DA)

### *i. Analysis - Phase 1*

I began the analysis process by applying the approach of Greenhalgh et al. (Greenhalgh et al., 2012) to the ATiCHo study, to identify the discourses being used and to consider why specific discourses may have been reported as used in some places by some people, and to consider how these reports might reflect Greenhalgh's findings on the range of discourses used in building an organising vision for AT. I then examined reports from the TeleHealth and CHATS reports to find whether similar or different discourses were present. This now reflected my changed stance to these materials as I had moved from enacting a role as a team member to examining them to produce a critical account of what they were used for. This meant I was treating these materials as topic (a site of investigation of discourses to present uses of AT) rather than resource (treating them as simply providing descriptive accounts of those uses).

Applying this limited form of DA to the ATiCHo study appeared to provide empirical validation of some of the AT discourses suggested by Greenhalgh (Greenhalgh et al., 2012), but also a potentially unidentified ‘problem-solving’ discourse. These suggested other discourses might be needed that recognised the active contribution of care staff and perhaps also residents in making AT work for them within care systems.

As noted throughout this chapter, carrying out a discourse analysis here meant I had a completely different relationship to the report document than at the time I contributed to writing it. In the Phase 1 Study I therefore approached the task by reading the report just as any other reader might read it and focused on highlighting the discourses used in it and their effects on framing claims, rather than taking for granted the validity of such claims.

For each report, I looked for examples of passages which discussed the aims, methods and major findings, and examined them. I began by reading and marking up all the different discourses I could find in the whole ATiCHo evaluation report document. Each passage was then identified in terms of its location in each report (in specified pages and section headings). I then briefly described each quote and related it to whether and which types of Greenhalgh-defined discourses they drew on, or in some cases where another discourse might be seen to have been used. I selected for written discussion on each page one example of each discourse found on that page.

I marked up and categorised any discourse as either Change Management (labelled as CM), Humanist (labelled as HU), or Political Economy (labelled as PE) discourse, or in some cases, a novel problem-solving discourse (where a Change Management discourse was combined with Humanist discourse (labelled as CM/HU). I then selected just one marked-up passage of each type from each section or page. I then purposively selected just one marked-up passage from each section or page, to provide a diverse sample of passages relating to discourses. I also provide a brief commentary for each selection on reasons for allocating it to a particular discourse. Any selected passage from the report is formatted in italics. Any commentary by me is in regular font.

Findings of Phase 1, presented in Chapter 4, includes brief summaries of each evaluation study report, my methods of examining the discourses in each of the ATiCHo, Telehealth and CHATS reports respectively, so as to present exemplars from the analysis of each report.

## 3.13 Data sources and data selection in Phase 2

This was a study of interview transcripts selected from one study, CHATS. Having access to interview transcripts from the CHATS evaluation made it possible to carry out a critical discourse analysis of interview transcripts, and to reconsider the different discourses identified in Phase 1, this time to identify different types of discursive engagement with AT in the context of organised care, by using Discursive Devices Analysis (DDA). Again, this meant my role and positionality in re-examining the transcripts was to attend to distinct features of participants' talk to engage, rather than to justify my own role or the original research aims.

## 3.14 Methods of data analysis in Phase 2

In contrast to identifying discourses used to build an organising vision for using AT as used in Phase 1, Phase 2 used a CDA analysis to identify where there may have been competing and alternative discourses and how these worked to position speakers in context.

### *i. Applying a Discursive Devices approach to Critical Discourse Analysis in examining AT interview transcripts in Phase 2*

Using a Critical Discourse Analysis approach, rather than simply DA, allowed me to look at how people used discourses in context to manage hyper-local issues of power, which may have arisen from positioning their practices and competencies in using AT. My role and positionality here extended my questioning approach to talk and text, as I described in Section 3.12.i., to see how participants themselves were dynamically using discourses to realise their purposes when engaging in interviews about using AT. This now entailed attending to linguistic details to analyse texts, including the use of specific words and grammatical constructions as suggested by Gee (Gee 2011) and emphasised by Fairclough (Fairclough, 1992) for grounding intertextual DA, both in terms of basic phrases and sentences, but also to consider what purposes the speaker may use them for in the context of the interview and where the interview may be taking place. The transcripts provide examples of how people use discourses, interpretative repertoires and discursive devices to represent and produce their own versions of practices related to AT.

Firstly, I explored the details of transcript texts, then identified the discursive practices informing how and why the text was being produced, and lastly what the text can tell us about how people may be positioning themselves and others in relation using AT. Initial analysis involved coding transcribed spoken data to identify key discursive constructions of participants' representations of their experiences of using particular (Mueller & Whittle, 2011) types of AT in particular places at particular times. This meant repeated readings of the data as text, exploring patterns in participants' representations of AT in use, how it appeared to them, but especially attending to ways in which they were using these representations, with what effects and uses for them, and what they may or may not be problematising about using AT. I reviewed and compared textual data sources in terms of how they used language within each interview. This enabled me to carry out systematic, detailed Discursive Devices Analysis of selected extracts of text to refine patterns of positioning suggested in the initial stages of analysis. My own positional stance as a critical discourse researcher here was to provide critical reflections on the discursive features to be found in these texts and in the context of recorded discussions. It was not about being seen to judge their value to me or to earlier commissioners of the research.

I specifically attended to how individual staff and service users used the interviews to identify and position themselves in relation to AT use, as more or less active or in control. I also sought to identify how participants' accounts may present their actions towards other participants involved in AT use, and what ideas about AT use they articulated through their use of language. This analysis will be supplemented by going back to the literature to provide a cultural and policy context relevant to producing the discourses, to propose some contextual explanations for relationships, particularly relating to power differences and dynamics, between discursive constructions, society and culture. The critical aspects of discourse analysis will be demonstrated by my selection and presentation of varying data extracts, together with my detailed discursive analytic commentary on it. This will provide a rigorous and accountable analysis for identifying discursive constructions and possible interpretations.

### *ii. Using a Discursive Devices Analysis to examine positioning in AT interview transcripts in Phase 2*

I wanted to use the findings from the CDA in Phase 2 to focus specifically on how people were presenting their experiences of using AT as positioning, referring to a wide range of other discourse studies that addressed what people might be doing with their language to try to position themselves and others. This led me to examine more closely the discursive devices (DDs) which can identify what people are doing with their discourse and more precisely, how they accomplish it. To provide a resource for readers to refer to when reading the Phase 2 findings on how people positioned uses of AT in their accounts, I present the DDs used in everyday situations, identified by other key researchers, and which could be found in my data analysis as used in participants' interviews. My positionality in Phase 2 called on me to work to identify DDs people were using, to locate these in the context of their being active in the interview interaction. I now needed to present this work transparently to help the reader see the methods and reasoning I was applying to framing these discourses differently from how participants' talk had been used to produce the reports for the CHATS project.

Table 2 sets out brief definitions, examples and literature sources for each DD. In line with the DDA analysis presented by researchers such as Mueller and Whittle (Mueller & Whittle, 2011), I set out these definitions here to inform reading of

Chapter 5, which will report findings for Phase 2. The definitions will inform the analytic discussion of how these DDs are seen to be used in the transcribed discussions examined in Chapter 5. The next sub-section details how this analytic discussion is developed as a practical process.

### *iii. Practical process of Discursive Devices Analysis*

The DDA approach used in this thesis draws on the methods for showing positioning in discourse as described by Mueller and Whittle (Mueller & Whittle, 2011). This approach begins by reading a script, looking for and marking phrases that suggest how people may be describing events and circumstances to present one or more particular case for positioning themselves or others in the interview. I then re-read the script, looking more closely at the specific expressions for how they may demonstrate that the speaker is using the topics and words to present a case in a specific way. ‘Case’ is used here to refer to a representation that the person appears to be setting up. An example of this could be stating that staff were not adequately informed about how the AT system worked, or that the new AT system worked better or worse than the previous system. At this point, examining where this appears in the text makes it possible to recognise and identify types of discursive devices which are shown here in a tabulated form (Table 3.2). These can be compared and identified with discursive devices found in the literature. New discursive devices, named elsewhere in the literature, were added to the table. Re-reading these phrases in the context of the flow of transcribed discussion then helps identify what work in the conversation the person speaking may be using that discursive device to do.

### Table 3.2 A selection of Discursive Device (DDs) drawn from Lennon (Lennon, 2015) and other sources, listed in table

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
| 1.Disclaimers | I'm not racist, but | Displays awareness of potential oppositional reception(s) of the utterance prior to proposing it. | (Van Dijk, 1997) |
| 2.Extreme case formulations (ECF) | Every, all, none, best, least, as good as it gets, brand new, absolutely. The best friend I ever had | Often justifies or imposes a version of events. It often generalises the extent/strength of something. | (Wiggins, 2017)<br>(Potter, 2017) |
| 3. Stake/ interest exposure/ attribution | He would say that, wouldn't he | Asserting the vested interest or stake of another, particularly regarding discounting or doubting the authenticity of their position. Invokes reasons for how accounts are situated within pre-existing interests, often exposing weakness/bias. (Usually responded to with competing exposures or denials.) | (Potter et al., 1993) |
| 4. Stake inoculations | Even as a woman I think feminism is pointless | Denying or downplaying the stake or vested interest the speaker has in a situation. Attempt to protect the speaker from charges from other speakers. | (Potter, 1996) |
| 5. Contrasts | Kids felt much safer in the 50s than today | Usually emphasise difference and gaps between two things. They might contrast people (individuals/groups) or situations/events (then vs. now). | (Smith, 1978)<br>(Smith, 1990) |
| 6. Vagueness | I think it's right and wrong at the same time | Provides a flexible means of displaying an effect or (effectors) problem but minimises the possibility of being 'wrong'. As a result, it is also weaker and more prone to stake/interest exposures. | (Chia, 2000)<br>(Smith, 1990) |
| 7. Specificity | Just under 7% are now unemployed. We've made over 1,000 jobs a day since 2010 | Provides specific, detailed examples (e.g. dates/times, statistics) to emphasise the 'truth' of something. (Because it is more direct/forceful, it is often responded to with other specific examples.) | (Lennon, 2015) |
| 8. Blame | Keith had been annoying Rob all day. It was only a matter of time before he snapped | This does several things. It obviously situates blame with a particular group/person for a particular event/effect. But it sometimes has effects on the speaker: it may elevate the speaker (e.g. brave) or can | (Lennon, 2015) |

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
| | | provoke hostility (e.g. charges of ad hominem, point-scoring). | |
| 9. Consensus/ collaboration | The local MP has agreed to set up a petition, and everyone at work agrees with it | This involves bringing others into the account – usually supporters. This may be abstract (e.g. principles) or tangible (e.g. friends, other groups). | (Lennon, 2015) |
| 10. Scene-setting | It was a normal day, really. I was just on my commute when the bomb went off. | This is narrative device involving talk about the past, recognisable situations, etc. It puts what follows into some sort of context, prompting interpretations of the prior narration. | (Graham et al., 2020);<br>(Robertson et al., 2010) |
| 11. Three-part lists | This that and the other | Usually emphasises the extent or variability of something in terms of three's ('I do X, Y, and Z'). Emphasises the extent of somet*hing* more broadly in a class of things, whether good or bad. It often involves repetition of an underlying thematic concept. | (Jefferson, 1991) |
| 12.Membership Categorisation Device (MCD) | The baby cried. The mommy picked it up. | These position individual people/things (which can include speaker or others) into broader social categories (e.g. boy = son), which will relate to other categories, to form collections/groups (e.g. family). Such groups carry with them specific responsibilities, expectations, rights and obligations that may be invoked or assumed when referenced. These establish norms of belonging and conduct, shaping the social world into recognisable ways. Pronoun selection (e.g. 'we', 'us', 'them') is one way of doing this. | (Sacks, 1992)<br>(Edwards, 1995) |
| 13. Display empathy/ sympathy | It's manic, isn't it? | Displaying an understanding of another's situation, particularly regarding their feelings, to make argument and ideas more balanced and sensitive. | (Fairclough, 1992);<br>(Ruusuvuori, 2007);<br>(Samra-Fredericks, 2005);<br>(Mueller & Whittle, 2011) |
| 14.Footing | We are just delivering this, we don't like it (animator) | Positioning ourselves in relation to what we say either (originator) author (deliverer) animator and (receives and connects) or principal. Pronoun selection (e.g. 'we', 'us', 'them') is one way of doing this. | (Goffman, 1981);<br>(Clayman, 1992);<br>(Mueller & Whittle, 2011) |

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
| 15.Externalisation ('out-there-ness') | There are no funds to do this | Presenting a description as independent of the speaker doing the construction. | (Mueller & Whittle, 2011) |
| 16. Concession | I know you may find this hard to believe | Explicit acknowledgement of actual or potential counterarguments, to appear more balanced, informed and thoughtful. | (Antaki, 1999) |
| 17. Authenticity | I really think this makes sense for us | Describing oneself and one's beliefs as authentic and based on personal conviction, as opposed to simply following orders or peer pressure, for example. | (Potter, 1996);<br>(Mueller & Whittle, 2011) |
| 18. Spontaneity | It just occurred to me that … | Presenting oneself as acting in a natural, unplanned manner. | (Goffman, 1975) |
| 19. Formulation | Obviously, this is a disaster | A statement of what has just happened in an interaction, summarising what is taken to be already known or agreed. | (Antaki et al., 2005) |
| 20.Nominalisation | The charity walk raised money. (We walked for charity and raised money) | Replacing verbs with nouns, to avoid mentioning those who performed the action, particularly to avoid attributing blame or responsibility. | (Whittle et al., 2008) |
| 21. Minimal contribution | Yes/no | Making short or single word contributions to discussion, often to resist others' control of discussion, to withhold consensus or perhaps to avoid committing or exposing their own views or knowledge. | (Thornborrow, 2014) |
| 22 Excusing | I did take the money, but I was only borrowing it | Admitting the act in question is bad, wrong or inappropriate, to explain and try to minimise culpability. | (Harre, 1977; Lyman, 1968; Scott & Lyman, 1968) |
| 23 Justification | I know it was wrong, but I had to do it, my hands were tied | Accepting responsibility for the act in question but denying the pejorative quality associated with it. | (Scott & Lyman, 1968) |
| 24 Corroboration | (The food is really good round here) He told me that was the best cake I've ever tasted | Statement that confirms or verifies by speaker citing 'others to shore up their explanation or accounts' (W&M 2008). Constructing factual accounts by citing independent others (P&E 1990) | (Potter, 2017);<br>(Potter & Edwards, 1990) |
| 25 Hedging | I think I have to sit on the fence with this one | Not taking sides in a particular cause, by expressing caution or uncertainty. | (Whittle et al., 2008) |
| 26 Stake Confession | 'Of course, we agree with you about that but…' | Attempt to display honesty. Speakers admit or 'confess to having a particular stake, motive or interest'. | (Whittle et al., 2008) |
| 27 Bracketing | The problem is there are going to be some | Fencing off an activity or event so it doesn't disrupt the overall | (Goffman, 1975); |

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
| | teething problems in going live | frame of shared meaning around 'what is going on here'. | |
| 28 Reassuring | I'll talk to you guys on that | Use of discourse to allay doubts/fears to comfort or soothe, to encourage. | (Whittle et al., 2008) |
| 29 Scripting | This kind of stuff happens | Opposite to Extreme Case Formulation (ECF), confirming as routine (as if following a script). Can present the account as normal and expected – and therefore acceptable. | (Bourdieu, 1992)<br>(Whittle et al., 2008) |
| 30 Distancing | 'We went back to first principles: our values, our real values' (Blair 2006) Valedictory Party Conference Speech | Remoteness in positioning from problematic interests to reduce contestation and challenges. | (Engelbert, 2012); |
| 31 Limiting | 'The fact is we are at war with terrorism' Blair (2001), Guardian 16th Sept 2001* | Restricting, restraining the domain of discussion, making what is considered possible and logical while excluding other options from consideration. | (Spencer Oatey et al., 2012); (Hülsse & Spencer, 2008) |
| 32 Denial | 'We have never been racist, have we Hilda?' Condor p452' | Refusal or unwillingness to accept usual negative self-attribute(s), often preceding expressing negative views against others. | (Condor, 2006); (Augoustinos & Every, 2007) |
| 33 Metaphor | 'Let's put a stop to the flood of immigrants' or 'Keep your paws off me' | Image meant to create an impact in the minds of readers. The aim is to convey a thought more forcefully than a plain statement would. They are exaggerated expressions so as to paint a vivid picture or become a profound statement, avoiding the need to back claims with facts. | (Musolff, 2012) |
| 34. Echoing | 'So, you liked it'.<br>'I liked it' | Mirroring or copying words or expressions of another speaker, which emphasises similarities. | (Kiss, 2020) |
| 35. Boundary-marking | Without the language, there is no work, no life. If you want to live you must learn the language | Marking one or more boundaries between categories, groups, spaces, to include or exclude, to define as 'belonging' or 'other' | (Duszak, 2002); (Mähönen et al., 2015) |
| 36. Claiming | Christmas time, everyone accepts money | Displays awareness of potential reception(s) (e.g. disbelief) of the utterance prior to asserting it, seeking to ensure acceptance or acceptability. | (Pomerantz & Kubovy, 1986) |
| 37 Minimisation | 'I just take a couple of bits of my protein food, but NEVER miss a meal completely' | Treats object or account as minimal often using the terms 'just', 'only', 'little', 'bit'. Can be used to downplay the significance of something | (Wiggins, 2017) |
| 38 Assessment/ Evaluation/ Second Assessment | 'This is nice'<br>'Yeah, it's lovely isn't it' | Placing a value, upgraded if a second assessment agreed, downplayed if disagreed. | (Wiggins, 2017) |

When reporting the DDA in Chapter 5, I will use this table to refer both to the types and definitions of DDs, by their name or abbreviated name and number in Table 3.2. This will enable the reader to locate terms and definitions of DDs being deployed in that conversation.

## 3.15. Ethical issues and permissions

The three reports to be examined here were texts in the public domain and so reading them did not need to be covered by new ethics permissions. My access to the anonymised interview transcripts from the CHATS study (needed for its in-depth analysis of recorded talk) did require ethics permissions. This was given as part of the ethics permissions obtained from UEA Ethics Committee in May 2010 for the mixed methods study, which included the qualitative study.

## 3.16. Summary of methodology and methods

In this chapter I have explained why I chose the methodologies underpinning this work to set up the object of research, which is about how people presented using AT as an ‘object of discussion’. I have also reflected on how my roles as researcher and analyst changed over time, from helping carry out the original research to reconstructing a different relationship with the materials to reframe them for discourse analysis. I have described DA, CDA and DDA approaches and how I intended to use them in the two phases of my study. I then justified the sampling according to the research aims for each phase, and the suitability of data available for answering my research question. Finally, I provided a detailed description of the analysis processes. In Chapters 4 and 5, I will go on to report on the analysis and findings of Phases 1 and 2 respectively.

# CHAPTER 4

# Phase 1 study findings from a discourse analysis of representations of assistive technology in health and social care services evaluation reports: ATiCHo (Jepson, 2009), TeleHealth (Cross, 2008) and CHATS (Fordham, 2010)

## 4.1 Introduction

The study aim was to understand how people have used discourses to represent themselves and others when writing and talking about using AT. In the Phase 1 study, this meant using discourse analysis (DA) to examine how the interests of different stakeholder groups were represented in evaluation reports of using AT. Chapter 2 reviewed literature which suggested a need to examine how AT in use is represented in accounts of evaluations of its use. Chapter 3 argued for comparing such accounts by applying the kind of discourse analysis (DA) suggested by Greenhalgh et al. (Greenhalgh et al., 2012), to help identify how different stakeholders with different interests in using AT may use different discourses to support these interests. In this chapter I apply such a DA to text from three evaluation reports of AT, to which I had substantially contributed. As I argued in Chapter 3 when justifying my methodology, I was re-analysing the report text as text where discourses can be found, rather than interpreting them as referring to meanings or events, and so my own experience-based views of what might have been happening would not bias this analysis. Reports of evaluating AT in use will draw on a range of discourses that stakeholders and participants use to represent activities involving AT, in ways that will shape evaluations of using AT*.*

This chapter first introduces issues identified and named in a first reading of the three reports. Next it explains how the organising framework of Greenhalgh et al. (Greenhalgh et al., 2012), characterising organisational evaluations of uses of AT and informing the methods argued for in Chapter 3, guides a comparative discourse analysis of the reports. For the rest of this chapter, each report is analysed in detail in relation to the range of discourses used in the context of the purposes pursued in the text. There is a separate section for each report, providing some background on the setting and evaluation design, then the detailed analysis ends with a summary of discourse analysis findings for that report. The final part of the chapter summarises overall findings for the Phase 1 study, and how this supports a Phase 2 study of some interview transcripts using a specific type of critical discourse analysis, discursive devices analysis, of the use of discourses in interviews underpinning the CHATS (Fordham, 2010) evaluation report.

## 4.2 Using these three evaluation reports to inform the Phase 1 study

I examined each evaluation report (the main text of each is summarised in Appendices B, C and D respectively) to summarise what issues they each identified in reporting on AT uses by participants in organisations. I identified these as terms in my initial readings of the reports. I summarised and compared these in Table 4.1, to highlight and compare terms being used to evaluate AT use in each report. These terms revealed the discourses being used by participants and highlight the different issues presented in the evaluation reports. Most issues represented in Table 4.1 considerably overlap across the reports, despite coming from different settings, and mostly relate to systems. However, the CHATS

(Fordham, 2010) report also referred to issues about AT affecting staff's caring activities, training, technical support, and loss of team working.

Table 4.1 shows the variety of evaluative terms identified relating to uses of AT across all three reports, which inform the evaluative discourses used in producing the reports.

**Table 4.1 – Issues represented as problems when putting AT into practice identified in the texts of ATiCHo (Jepson, 2009), TeleHealth (Cross, 2008) and CHATS (Fordham, 2010) evaluation reports**

| ISSUE CATEGORIES | ATICHO | TELE-HEALTH | CHATS |
|---|---|---|---|
| | | | |
| Lack of clear organisational systems for AT | ✓ | | ✓ |
| Over-use blocks the AT systems | ✓ | | ✓ |
| Time pressures on staff who provide records of AT use | ✓ | | |
| Local Authority homes focus on AT monitoring systems | ✓ | | ✓ |
| Private homes focus on individual equipment items | ✓ | | |
| Lack of clear purchasing systems | ✓ | ✓ | |
| AT systems offer both benefit and hindrance | ✓ | ✓ | ✓ |
| Time pressures on staff who provide support for residents to use individual AT equipment | ✓ | | |
| Varying trust in AT equipment to guide decisions (e.g. COPD patients in TeleHealth) | | ✓ | ✓ |
| Not gaining clear guidance from AT equipment readings (e.g. heart failure patients in TeleHealth) | | ✓ | ✓ |
| Placing AT equipment away from shared living spaces | ✓ | ✓ | |

| | | | |
|---|---|---|---|
| AT giving both support and concerns | ✓ | ✓ | ✓ |
| Staff gaining information from a distance, less personal | ✓ | ✓ | ✓ |
| AT increasing costs to patients | | ✓ | |
| Varying importance given to patient access to AT technical support | | ✓ | ✓ |
| Varying importance given to staff access to AT technical support | ✓ | | ✓ |
| AT benefits actively monitoring, but disadvantages remote checking via alarms | ✓ | | ✓ |
| Limited staff training – to use but not to give technical control | ✓ | | ✓ |
| AT lack of fit with personal caring work | | | ✓ |
| AT changing the dynamics of the home | | | ✓ |
| AT replacing active (mutual) support/ | | ✓ | ✓ |

Table 4.1 immediately shows participants identifying a range of organisational and not just technical challenges for people using AT. The reports clearly reflect very different interests in using AT and varying discourses of organisational and personal concerns, from focusing on monitoring systems to time pressures on staff and lack of fit with personal caring work. I use the discourse analysis of the reports to identify and understand how these different interests may be represented by drawing on the theoretical framework of discourses in using AT produced by Greenhalgh et al. (Greenhalgh et al., 2012).

## 4.3 Using the theoretical framework of discourses on using AT (Greenhalgh et al., 2012) for the Phase 1 study of discourses used to evaluate AT

Discourse analysis offers a way of examining texts relating to social practices in order to highlight how language and statements support some definitions and interpretations of interactions and some groups' interests while limiting the visibility of others (Fairclough, 2004); (Hodges et al., 2008). Such analysis can encompass issues of power, market forces, structures of health systems, and more locally, user-professional relationships and experiences over time in different settings.

This section now provides more detail on the theoretical framework of Greenhalgh et al. (Greenhalgh et al., 2012) to explain how I would use it to analyse the representations of AT use provided in these three reports.

This theoretical framework examines AT representations by identifying four different discourses associated with the stakeholder groups involved with AT, telehealth and telecare: a Modernist (MOD) discourse presenting AT in terms of rationality and efficiency; a Humanist/ Phenomenological (HU/PH) discourse identifying meanings, feelings, relationships and experiences being attached to AT; a Political Economy (PE) discourse presenting AT in terms of differing group interests that can raise dynamics of group conflict and compliance or resistance to domination; and a Change Management (CM) discourse locating AT in terms of its contribution to the workings of systems and organisations.

The evaluation reports may have used any of these discourses to articulate an overall view of the AT activities each document was to report on. I used my discourse analysis to identify which of the discourses from Greenhalgh et al. (Greenhalgh et al., 2012) were used in specific text contexts, but also to note other less-expected discourses. The organising vision approach sees people as using discourses to construct and present “facts”. The rest of this chapter relates this approach to selected extracts from the three reports.

For each evaluation report, extracts drawn from the relevant report are set out and each considered as an exemplar of a type of discourse. Each extract is formatted in italics and presented in a text box, together with its location within the source report (as page number, PXX) and its section location (Section Number Y and Section Title Z). Exemplars for each type of discourse found are presented in turn and discussed here in the same order they appear in the report. We start with Change Management (CM), then Humanist (HU/PH) extract, then Political Economy (PE). There is no Modernist extract shown here, as this was not found in the ATiCHo report. The analytic commentary on each extract is also presented here to introduce and contextualise after each extract

## 4.4 Examining examples of discourse used in the discourse identified in the ATiCHo report (Jepson, 2009)

An outline summary of this report is reproduced in Appendix B. In the ATiCHo evaluation report (Jepson, 2009), a CM discourse was seen to be used especially often throughout the document, from the initial statement of the report’s evaluation aims and how it presented findings on using equipment and assessment processes, through to the conclusion. Extracts from different successive report sections are examined in turn here to describe and then discuss how the CM discourse is being used in the report in ways that present its findings to fit with the interests of its intended audience.

### *ATiCHo (Jepson, 2009) Extract 1 – Change management (CM) discourse*

Extract 1 provides a description of the aims of the evaluation early in the report, to ensure in-depth consultation in terms of its looking *"in-depth"* at the home as an organisation, where the project to introduce AT was *"operationalised",* seen here to draw on a Change Management (CM) discourse.

*Fig. 4.1 ATiCHo (Jepson, 2009) Extract 1 - CM*

> *P10*
>
> *1.4 Description of the evaluation*
> *Overall aim was to ensure in-depth consultation with care home carers, both managers / owners and care assistants who were involved in operationalising the project in participating care homes.*

Here, the Change Management discourse identifies people to be consulted in the evaluation as those "owners and care assistants who were involved in operationalising the project in participating care homes". This shows the report focusing on project implementation and structures, rather than on participants' views and responses, as they were not represented as being involved in this type of work. Taking this focus could be read as countering the originally-stated intention to carry out "in-depth consultation" (Gjestsen et al., 2017).

### *ATiCHo (Jepson, 2009) Extract 2 – Change Management (CM)*

Extract 2 is drawn from the main section of the report which presented findings, here setting out aims for specific types of AT equipment being used.

*Fig 4.2 ATiCHo (Jepson, 2009) Extract 2 - CM*

> *P22*
>
> ***Summary of results for individual devices***
>
> ***Multi-sensory project (1 evaluation, CH5)***
>
> *Aim being to provide stimulation to encourage erect and upright sitting rather than falling from the chair.*

Here a *“multi-sensory project”* is presented to *“encourage upright sitting”*, with a device to be inserted into chairs people were using.

The CM discourse here articulates service aims for the equipment in a depersonalised way, to *“provide stimulation to encourage erect and upright sitting”* in constrast to *“falling from the chair”.* Again, the report text seems to represent introducing general practice for *“upright sitting”*, without making reference to the personal wishes and comfort of any person receiving this device. This raises the kind of ethical questions about whether AT adequately recognises people, identified by Cash (Cash, 2004).

### *ATiCHo (Jepson, 2009) Extract 3 – Change Management CM*

Extract 3 is also drawn from findings presented on assessing specific items of equipment, in this case about using incontinence mats, using a direct quote from a care worker.

**Fig. 4.3 ATiCHo (Jepson, 2009) Extract 3 – CM**

> *P26*
>
> ***3.2.iii Equipment***
>
> *Incontinence mats were viewed as impractical because they were too sensitive:*
> *“...we found they were so sensitive that body sweat set them off. They did recommend that we double sheet the bed, but we found that by doing this the person was very wet. So it had gone through the pad and two lots of bed linen to hit the enuresis, the laundry was terrible. We tried them on the people who were only slightly incontinent who didn’t wear pads and again we had the same problem they were too sensitive, and they were more disruptive than useful to residents and carers”.*

This describes the equipment in terms which relate the decision to a CM discourse. The text shows care workers’ comments that express problems for realising the equipment’s intended use in practice as “*Incontinence mats, impractical because they were too sensitive”.* Staff are shown to comment here on how non-functioning equipment hinders the day-to-day working of the organisation, and present this as an additional burden for them because *“the laundry was terrible”*. This positions the equipment as a problem in that it is *“more disruptive than useful to residents and carers”* and shifts the focus to how it interferes with the system’s efficiency and away from the experience of the person using the mats. Again, this highlights the challenges for personal recognition noted by Cash (Cash, 2004).

### *ATiCHo (Jepson, 2009) Extract 4 – Change Management CM*

Extract 4 is from the report’s Discussion section, which linked the evaluation findings to AT literature, mainly Scherer (Scherer, 2012), describing how assessment might match people with items of assistive technology.

**Fig. 4.4 ATiCHo (Jepson, 2009) Extract 4 – CM**

> *P29*
>
> ***DISCUSSION***
>
> *Literature about the usage and sustainability of assistive technology places a great emphasis on the importance of assessing the person, the milieu and the technology as critical components for successful interventions to occur (Scherer & Craddock 2002, Scherer et al 2005, Ripat 2006). It could be extrapolated from this evaluation that timely and appropriate assessment could ensure that each resident receives appropriate equipment. Assessment needs to be systematic and continuous over a longer period.*

A CM discourse is evident in this extract in terms of claiming that “*Literature about usage and sustainability of assistive technology”* emphasises the importance of *“the milieu and the technology as critical components for successful interventions to occur*”, and it is the equipment that are the items of concern, again for the system, not people. The CM discourse is further deployed in stating that “*It could be extrapolated from this evaluation that timely and appropriate assessment could* *ensure that each resident receives appropriate equipment*" and "*assessment needs to be systematic and continuous*". Again, using CM discourse casts the AT assessment process as linking people and equipment into a system. It does not address the kinds of personal experiences the AT might need to relate to in practice, nor does it address how residents may play any active part in the system, with planning and policy providing mechanisms that contribute to means of making the system work.

### *ATiCHo (Jepson, 2009) Extract 5 – Humanist/Phenomenological (HU/PH) discourse*

The text of this evaluation report sometimes moves from the dominant CM discourse to a Humanist/Phenomenological (HU/PH) discourse, when it details responses of individual care staff and (occasionally and indirectly) residents' responses to or examples of individual uses of AT equipment.

Extract 5 is from the report's presented findings on specific items of equipment, here relating to personal alarms, and included several direct quotes from care workers on how residents responded when starting to use the alarms.

**Fig. 4.5 ATiCHo (Jepson, 2009) Extract 5 – HU/PH**

> *P18*
>
> ***3.1.i Summary of results for individual devices***
>
> ***Personal alarm, worn around neck (9 evaluations, CH1 and CH2)***
>
> *"Reduced wearer anxiety" and "increased reassurance", "Initially confused by the resulting intercom voices when the device was activated", "difficulties in adjusting to" and "learning about its wear and operation"*

A HU/PH discourse can be seen here in several terms which describe people's personal reactions and experiences of "*anxiety and increased reassurance*", “*Initially confused by ...intercom voices*” and “*difficulties in adjusting to and learning about*”, which address the equipment as the focus of attention. These terms are immediately making visible more vividly both the residents and their experiences of interacting with AT equipment, as well as carers’ interpretations of the processes involved.

### *ATiCHo (Jepson, 2009) Extract 6 – Humanist/Phenomenological (HU/PH) discourse*

Extract 6 is from the report’s Presentation of findings, this time concerning training received.

**Fig. 4.6 ATiCHo (Jepson, 2009) Extract 6 – HU/PH**

> *P27*
>
> ***3.2. v. Training***
>
> *There was apparent confusion amongst carers as to the purpose of some of the equipment: “The one that goes under the bed and alerts you to the person getting up was actually a bed occupancy monitor where they assumed that was to help prevent them falling but they thought that it was falls monitor alarm”.*

Such terms identify the lived experience of carers when trying to understand how to use the equipment, here saying that “*There was apparent confusion amongst carers as to the purpose of some of the equipment”.* This also describes meanings people give to the equipment in use as ambiguous, when they say that, *“The one that goes under the bed and alerts you to the person getting up was actually a bed occupancy monitor”.* The writing suggests individuals had limited understanding when they *“assumed”* the equipment would *“help prevent falling”*, when actually *“it was a falls monitor alarm”.* Here again, these descriptions of learning experiences have meant using terms that spell out people’s specific understanding of challenges. Confusion is only identified when the text uses a discourse that can detail the mixed perceptions that individuals hold, as suggested by Van Den Heuvel et al. (van den Heuvel et al., 2012) in considering AT awareness requirements.

### *ATiCHo (Jepson, 2009) Extract 7 –Problem-Solving discourse P-S (Combining Change Management (CM) & Humanist/ Phenomenological (HU/PH))*

Extract 7 is from the text presenting findings on the assessment forms about training. Here we see difficulties reported for the care workers in completing these forms and suggested ways to improve them.

**Fig. 4.7 ATiCHo (Jepson, 2009) Extract 7 –P-S**

> *P23*
>
> ***Assessment forms***
>
> *Pilot assessment questionnaire suggested that there needed to be very little writing because of carers' time. Initial form "wasn't very user-friendly". For example, they did not like the phrase "Resident's main problem". Carers found it difficult to understand and calculate start and finish dates for extended periods of use of equipment. The carers liked having smart, coloured stationery as this made it easier to locate.*

This evaluation report text can be seen to use a further specific discourse not identified by Greenhalgh et al. (Greenhalgh et al., 2012). This highlighted discursive terms being used to describe people taking practical actions to make systems work more interactively. It identifies a novel 'problem-solving discourse' (P-S), which can be seen here, specifically where the report addressed a project question relating to *"carers' time".* This may have represented an organisational concern, but using this discourse shows how it was needed to describe people's responses to the act of form filling, as it "*wasn't very user-friendly"* and carers did not like phrases on the form, such as *"Resident's main problem".* Instead, carers suggested practical ways to make the form work for them, i.e. "*having smart, coloured stationery as this made it easier to locate."*

### *ATiCHo (Jepson, 2009) Extract 8 –Problem-Solving discourse P-S (Combining Change Management (CM) & Humanist/ Phenomenological (HU/PH))*

Extract 8, also from this report's Findings section, describes insights into how care workers responded to training on assessing needs for equipment. The terms used identify ways the care workers developed their insights from their practice to actively make their assessments work.

**Fig. 4.8 ATiCHo (Jepson, 2009) Extract 8 –P-S**

> *P24*
>
> ***Assessment for equipment***
>
> *We basically looked at different pieces of equipment that we found and then thought "that would be okay for somebody." There were times when carers realised almost accidentally that a device could assist someone. One interviewee told the story of a resident who had refused to use a talking watch. This suggests that any assessment has to be systematic and continuous over a period of time.*

A P-S discourse is seen here in terms which initially look like (HU/PH) discourse. Care workers are represented as categorising "*okay*" choices of equipment with a potential user, *"We basically looked at different pieces of equipment that we found and then thought that would be okay for somebody."* However, care workers are also shown to describe themselves as actively offering some meanings and personal links to the equipment type. The personal interactions involved in making these links are also highlighted with a *"resident who had refused to use a talking watch"*, to show how staff had to overcome some resident resistance to being assumed to conform. This means elements of a Change Management discourse are also being used, expressing the need for any such assessment to be "*systematic and continuous over a period of time". This* makes visible what the system would 'naturally' seek to represent as a duty of an efficient organisation, by a process of routinely monitoring people and equipment within that system. But to do so would mean staff having to problem-solve through interaction. This was made visible by terms which identified it as a P-S discourse, i.e. "*any assessment has to be systematic and continuous".*

### *ATiCHo (Jepson, 2009) Extract 9 – Political Economy (PE) discourse*

It was less likely that this report would draw on the kinds of Political Economy discourse identified by Greenhalgh et al, (Greenhalgh et al., 2012) as this would underline basic group conflicts and built-in critical elements, instead of writing to fit the report's brief by suggesting solutions for the organisation or senior managers. However, in a few places, the report did describe participants identifying some basic conflicts of interest between carers and residents and could be seen to do so using this distinctive discourse, shown in Extract 9.

**Fig. 4.9 ATiCHo (Jepson, 2009) Extract 9 – PE**

> *P25*
>
> ***3.2. iii Equipment***
>
> *Some interviewees explicitly stated that the new systems were of greatest benefit to the carers rather than the resident. "They benefit us (carers) more than the person (resident)" (CH5)0**

Here, a PE discourse is used to identify possible conflicts of interest between key participating groups: care workers and residents, when the report text actually articulated that it was *"explicitly stated that the new systems were of greatest* *benefit to the carers rather than the resident”,* as noted by Woolham et al. (Woolham et al., 2006).

## 4.5 Discussion of the ATiCHo (Jepson, 2009) exemplars

This discourse analysis, carried out with reference to the framework from Greenhalgh et al. (Greenhalgh et al., 2012), has highlighted that some elements of this framework fitted the discourses being used in the ATiCHo (Jepson, 2009) report. But other elements needed to be allocated to a further novel discourse, because the report referred to additional uses of AT not covered by it. This discussion of the ATiCHo (Jepson, 2009) exemplars considers how this innovation arose in the analysis.

Firstly, no examples of the MOD discourse part of the framework from Greenhalgh et al. (Greenhalgh et al., 2012) were found. This would fit with the requirement for the report to address the purposes of the commissioners as its intended audience, which were more concerned with system uses than with specifically promoting technology.

Secondly, the report writers identified issues in using AT that recognised how it could not be used in a standardised, pre-set way. To describe these more individualised experiences, the text was more likely to draw on a HU/PH discourse as a way of bringing them into how the report presented evaluating uses of AT.

Thirdly, however, where the report needed to represent care staff actively working to re-align the disruptions to their normal work being created by the introduction of AT equipment and training into the care system, a specific “problem-solving discourse” (P-S) was called for. This could make visible how staff either actively made equipment and people work or found ways to deal with equipment and people not working as expected. The report text therefore also showed a problem-solving discourse also being used to describe staff and residents as interactively managing issues and feelings raised for them by AT, as they tried to fit what they were doing more into what they were used to doing in their everyday practice. As noted by Stone (Stone, 1997), in contrast, patient or service user agency is often pushed into the background by medical discourses.

## 4.6 Comparing discourses seen in the ATiCHo (Jepson, 2009) report to discourses used in the TeleHealth (Cross, 2008) and CHATS (Fordham, 2010) reports

Applying DA to the ATiCHo study (Jepson, 2009) immediately provides some empirical validation of the AT discourses suggested by Greenhalgh et al. (2012) in organisations. However, doing this also identified other discourses being used to report evaluation of AT uses. These other discourses were used to describe and to recognise how care staff actively contributed to making AT work within care systems. The uses of discourses that recognise staff actively problem-solving when using AT is explored further in the next two sections. These compare the types and balance of discourses found in the ATiCHo (Jepson, 2009) report, now to include possible use of the “problem-solving” discourse, with the texts in TeleHealth (Cross, 2008) and CHATS (Fordham, 2010) reports. Again, in each report, I selected passages that set out its aims, methods and major findings. These are presented in the same way as for the ATiCHo (Jepson, 2009)analysis (above) and then similarly discussed in terms of whether and which types of discourses identified by Greenhalgh et al. (2012) or another, e.g. problem-solving discourse, were being used and to what effect.

## 4.7 Examining examples of discourses used in the TeleHealth (Cross, 2008) report

A brief summary of this report is reproduced in Appendix C. Again I used the Greenhalgh et al. (2012) DA framework here as a basis for analysing discourses seen in the TeleHealth (Cross, 2008) report. This report presents evaluation in two phases: an audit phase and a next-phase qualitative study of patients and providers' views of AT service satisfaction and of patients' experiences of using the AT service.

My analysis found two types of discourses previously identified by Greenhalgh et al. (2012): CM and HU/PH discourses. However, again it also found a further discourse beyond the Greenhalgh et al. (2012) framework, the problem-solving discourse.

### *TeleHealth (Cross, 2008) Extract 1 – Modernist (MOD) discourse*

Extract 1 sets out the aims (*"agreed by the commissioning group"*) and framework for the TeleHealth research to be reported, the extract uses terms to describe aims to cover reducing hospital admission, hospital stay, community care service use, professional and patient satisfaction, improvements in participants' quality of life, choice, and independence, and to identify key characteristics of patients who may benefit from the telehealth service.

**Fig. 4.10 TeleHealth (Cross, 2008) Extract 1 – MOD**

> P.6
>
> <u>Funding</u>
>
> *The aims of the evaluation were agreed by the commissioning group as:*
> *To evaluate whether this service provision produces a reduction in hospital admissions for individuals compared to previous admissions data.*
> *To investigate whether there is an overall reduction in hospital stay compared to previous data.*
> *To investigate community and primary care usage during the intervention phase*
> *To investigate both professional and patient satisfaction with the service provision*
> *To investigate whether this service produces improved quality of life, choice, and independence for participants.*
> *To identify the key characteristics of patients who benefit from this service.*
>
> *In order to meet these aims the evaluation was in two phases; Phase one audited: service usage employing descriptive analysis of the data regarding hospital admissions, primary and secondary care usage. Phase two employed qualitative techniques to investigate patient and provider satisfaction with the service as well as patient perceptions of quality of life.*

The evaluation aims are expressed here using terms that fit with a Modernist MOD discourse, which here emphasises metrics and effects on admission rates, more precisely identifying characteristics (of particular participants) and describing the study methods by referring to audit and techniques of investigation as typified by Arthanat (Arthanat et al., 2007). However, when justifying the use of qualitative design, it shifts to a more to a HU/PH discourse to articulate patient and staff perspectives and meanings of the telehealth services for them as individuals, using terms such as *“independence”*, *“satisfaction”*, *“choice”* and *“perceptions of quality of life”*. These terms are communally reflected in the patient-reported outcomes in major studies of telehealth, such as the Whole Systems Demonstrator study (Cartwright et al., 2013).

### *TELEHEALTH (Cross, 2008) Extract 2 – Modernist (MOD), Humanist/Phenomenological (HUM/PH) and Political Economy (PE) discourses*

TeleHealth (Cross, 2008) Extract 2 provides report text using terms to claim a marked improvement for some stakeholders in quality of life.

**Fig. 4.11 TeleHealth (Cross, 2008) Extract 2 – MOD, HUM/PH and PE**

> 3.8.1COPD
>
> <u>Quality of life</u>
> P.19
>
> *This is seen as having improved as there are less hospital admissions for some and these are seen as a major drawback in life. It is however still to be acknowledged that some of the participants still regarded their quality of life as poor particularly in relation to what they had before. This theme relates strongly to the financial resource that these people and their families regard themselves as having and they regard their situation presently as financially difficult. For some the equipment places a further financial burden and this is regarded both as unnecessary and unjust. In particular these individuals regard the paying of VAT on their telephone bill as the final insult as they fully understand that VAT is not payable on medical equipment but is payable on this element of their bill which they regard as essential.*

Improvement is indicated here by *"less hospital admissions",* which are nonetheless seen by some as "*a major drawback".* The extract also presents participants as having financial difficulties which lead them to see the telehealth provision as a financial burden, paying VAT on telephone contact to work the equipment, and seeing this as unnecessary and *"an insult"*, as they see their phone as *"essential"* in their life. More than one discourse is used in this extract. For example, MOD discourse terms are used to report reduced levels of hospital admissions, yet the report states that individual participants would see costs of using telehealth as a major drawback, so shifting the terms used to a HU/PH discourse. This one sentence presents systems outcomes representing MOD ideas on technology alongside the person's stated perceived outcome, together with a HU/PH discourse which conveys their sense of financial burden created, identified by having to pay extra VAT on their own telephone bill. HU/PH discourse here highlights the personal experience of participants being charged for what they saw as their life necessities, as observed in other studies of telehealth at home (Martinez-Martin & Costa, 2021). In this extract Political Economy (PE) discourse terms also represent people as resisting a system they viewed as unjust.

The use of DA here helps display specific tensions which go beyond just reporting identified areas of discussion. Here, DA presents these tensions not as neutral or distant. It reveals alternative possibilities, seeing the effects of telehealth as not just reducing hospital admissions rates (MOD discourse), but as also creating financial anxieties for recipients (HU/PH discourse). It draws attention to a type of power struggle using a PE discourse.

### *TELEHEALTH (Cross, 2008) Extract 3 – Humanist/Phenomenological (HU/PH) discourse*

Extract 3 text (see Fig. 4.12) claims that the report is taking participants' interviews as evidence of their views on their condition having possible outcomes for their lives.

**Fig. 4.12 TeleHealth (Cross, 2008) Extract 3 – HU/PH**

Heart Failure

P.21

*None of the interviews revealed any changes in the way these people were managing their condition, in fact there was an apparent resignation toward their condition which suggested it had to be put up with. None of the participants expressed any opinions about the telehealth improving the quality of neither their lives nor their independence, despite being prompted to consider these outcomes. Instead, they described their disease state as one that had to be endured and there was little that could be put in place to address their difficulties, describing a state to be endured. Whilst it is apparent that a lack of back up emerged as an issue for these patients, further investigation would be interesting and helpful to explore whether psychological or emotional reactions to this condition may have played a role in the responses gained.*

Here, participants use phrases such as *"resignation towards their condition"* but do not express any opinion about the telehealth improving their quality of life. Rather, they express that disease is to be *"endured"* and "*little could be put in place to change this".* The report questions whether these responses may have been prompted by *"psychological or emotional reactions"*.

These terms do not convey a sense of embracing change and development in systems, which MOD or CM discourses would identify, but rather focus on the human experience of using the equipment. This draws on a HU/PH discourse that identifies how technology is less about people accepting self-monitoring in a simplistic way, and more about describing the complicated human relations in having differing needs in health care, and a continuing sense of dependence. Thus HU/PH discourse terms are being used to identify such experiences and suggest *"further investigation"* of *"psychological or emotional reactions"*. Other studies, for example Jacob & Holmes (Jacob & Holmes, 2011) have identified reactions such as fear of AT.

### *TeleHealth (Cross, 2008) Extract 4 – Modernist (MOD) and Problem-Solving (P-S) discourses*

The text of Extract 4 focuses on measuring and monitoring, in this case independence.

**Fig. 4.13 TeleHealth (Cross, 2008) Extract 4 – MOD and P-S**

Independence

P.23

*The telehealth service facilitated the clinicians' ability to manage the patients effectively and from a distance, this meant that hospital admissions which might have occurred 'just in case' could be avoided and the clinician felt confident in making that decision. This decision making was particularly facilitated by the lung questionnaire in the monitoring. This was described as being like a 'triage' and potentially the most useful aspect of the monitoring. Additionally for some patients the specialist nurses picked up other problems from the monitoring data which prompted referrals elsewhere. For example, one patient had been assessed for long term oxygen (LTOT) in the past and never met the criteria, monitoring however ascertained that he was hypoxic a lot of the time and he was prescribed LTOT. Another patient was referred to Papworth for investigations for OSA as monitoring revealed he was hypertensive and always hypoxic in the mornings, resolving later in the day. Data was available to print and send with the referral to an appropriate consultant, hence overall improvements were made to management of these patients.*

The terms here refer to a world of technical monitoring of issues such as a patient's parametric readings and medical abbreviations of those with LTOT, OSA and terms like "hypoxic". This shows how the telehealth service facilitates and encourages confidence in the Specialist Nurses' decision-making, when monitoring patients' data from a distance and so "*avoiding hospital admissions*". However, the "*lung questionnaire*" is presented as having most influence when making triage decisions from monitoring the patients’ ongoing situation. Nurses are presented as picking up signs of other health conditions from the “monitoring *data”* and *“prompting referrals”* to send with appropriate *“data available to print”* to consultants and so improving their management of patients.

This draws on a MOD discourse which presents measuring and data monitoring as central to a philosophical vision of telehealth, a system in which data is exchanged through technology and so supports more rational decisions. This is the kind of optimistic case for monitoring AT promoted by this discourse seen in the review by Martínez et al. (Martínez et al., 2006). In this extract, it goes as far as suggesting increased efficiency in the health system if there are *“fewer hospital admissions”.* However, more of a P-S discourse can be seen at the point where the text presents the *“lung questionnaire”* as more central than telehealth provision to clinicians’ decisions. This P-S discourse points to nurses’ essential ‘hidden’ work in monitoring and in turn supporting the system to operate, which is often not acknowledged. Within this extract, telehealth is placed as central to the reporting and so much of the writing here focuses on the working of the system with the telehealth as facilitator. But bringing in a Problem-Solving discourse shows people having to make their own decisions alongside the telehealth features and gives their decisions more prominence. This is reflected in studies of AT use in supporting this kind of decision making, such as Auger et al (Auger et al., 2022).

### *TeleHealth (Cross, 2008) Extract 5 – Humanist/Phenomenological (HU/PH) / Problem-Solving (P-S) discourse*

Telehealth Extract 5 describes interviewing participants on their experiences of using the Telehealth service, about what differences it made to their lives, choices and independence.

**Fig. 4.14 TELEHEALTH (Cross, 2008) Extract 5 – HU/PH or P-S**

> Patient experience
>
> P.16
>
> *Interviews were conducted with the participants during their telehealth experience. These were semi-structured around an interview guide which comprised the following questions:*
>
> *i) Has the provision of this service made a difference to how your condition affects your life?*
>
> *ii) Has the provision of this service allowed you to make more choices about your health care?*
>
> *iii) Has the provision of the service allowed you to be more or less independent?*
>
> *This semi-structured format was designed to enable the patient to speak freely. and allow the researcher to react to the dynamics of the conversation. Points which were relevant to particular individuals were then explored further.*

The text here identifies aims for the interview process informing the evaluation study: a semi-structured design, so as to encourage the participant to express their own views and requiring the researcher to react to that process. The language used here seems to fit with the HU/PH discourse from Greenhalgh et al. (Greenhalgh et al., 2012), to show the individual's own interpretation of the effects for them of the telehealth provision and fits with reporting a research process to identify choice-making and independent living. However, the language could be seen as better fitting with a P-S discourse. This is because it is doing more than just reporting events as experienced. It also describes how researchers sought to meet challenges for setting up an appropriate discussion between researcher and research participants. So, the problem being defined here is not directly about experiencing telehealth as good or bad but about addressing concerns about how to research around telehealth.

### *TELEHEALTH (Cross, 2008) Extract 6 – Humanist/Phenomenological (HU/PH) and Problem-Solving (P-S) discourses*

This extract presents findings on whether the telehealth provided helped patients to increase their choices and independence.

**Fig. 4.15 TeleHealth (Cross, 2008) Extract 6 – HU/PH and P-S**

> COPD patients
> Results 3.8.1
> Choice and independence
> P.18
>
> *Having telehealth appears for many in this group to facilitate choices in both their life and how they manage their chronic condition. The telehealth equipment measures certain physiological parameters and many of the recipients are demonstrating great skill in interpreting these readings. They use these readings to then make the two choices outlined below.*

The terms used in the account shown here include but also go beyond a simple HUM/PH discourse of having *"choices",* as the text also highlights the users interacting with specific characteristics of the technology. This text describes ways in which users make their own choices and develop their own skills to shape their lives, which fits more closely with a P-S discourse of interactive engagement, with people making technology work by taking what is available and "*demonstrating great skill in interpreting these readings*" to adapt it to their own uses and concerns. Studies of ageing, for example, Procter et al. (Procter et al., 2014), emphasise that people talk about the need to improvise in this way to make AT work for them.

### *TeleHealth (Cross, 2008) Extract 7 – Modernist MOD, Humanist/phenomenological (HU-PH) and Political Economy (PE) discourses*

This extract presents findings on ‘choice’ as nurses saw it.

**Fig. 4.16 TELEHEALTH (Cross, 2008) Extract 7 – MOD, HU-PH and PE**

> <u>Choice</u>
>
> P.22
>
> *The COPD nurses felt that the project had increased the choices being made by the patients. They had anxieties initially regarding how the patients would utilize this choice, perhaps by increasing their telephone calls to the specialist nurses or by increasing their attendances for admission. These fears had proved ill founded. The specialist nurses acknowledge that patients had been able to make the sort of choices the researcher had identified, however there were other areas where perhaps the project had facilitated choice in a different way. A patient was identified who almost ignores their illness and lives their life, day by day. The team could see them deteriorating but that person chose to ignore it. The telehealth had forced them to acknowledge their illness and face several issues. The nurses reported the paradox of this situation with the telehealth not allowing them to continue to ‘choose’ to ignore their condition; however, it has forced them to begin to make choices. Now, suddenly, there are lots of other questions for them in relation to “should I do this or do I talk about surgery, and all sorts of issues. This raised questions as to whether this was a good or bad thing.*

Here the topic is stated as “choice”, taking the words from the COPD nurses’ perspective on their working situation as seen through complex choices made by patients on whether to use telehealth to help organise their lives. The text represents nurses working with patients, who say the telehealth has in some ways forced patients to “*acknowledge their illness*” and to then make choices about how they might use telehealth to organise their lives. On the one hand the telehealth project reports “*increased choices*”, but also that these choices brought nurses "*anxieties*" about "*how patients utilized choice; perhaps increasing calls to them*" or "*increasing admissions*". Yet the report text presents these fears as "ill-founded", since the project had initiated choices *"in a different way"* with one patient *"almost ignoring their illness",* living life *"day to day"* while the nursing team *"see them deteriorating".* That person is reported as having to *"face a number of issues"* as a result of having telehealth and having to *"begin to make choices"*.

These HUM/PH terms express a patient's choosing not to recognise their illness to a point where they deteriorated, but also that the telehealth *"forced"* them to acknowledge their condition. Nurses here do not represent AT as increasing but rather reducing patient choices, framing them as *"forced"* and also into facing up to *"other issues"* of their illness. The text points to a paradox with telehealth. This describes telehealth as not allowing the patient to stick with their initial choice of ignoring known medical evidence, but instead, being forced to discuss what someone else is judging as more appropriate medical interventions for them. The report text raises, but does not answer, the question about how good or bad this new set of *"choices"* may have been. The HUM discourse of Greenhalgh (2012) can be seen here in the terms which frame what is being judged to be of value when looking at a telehealth experience. This discourse helps specify relationships, feelings and the lived experience of engaging or not engaging with telehealth. The text here makes this evident by naming issues initially brought up by the nurses: their potentially increased workload, telephone calls and hospital admissions, so at this point it might signal a PE discourse.

A HUM discourse is also used to display social influences on patients making choices, as staff describe the patient making decisions that they judge in a negative light. Telehealth routines are shown instead to *"force"* patients to consider seeking medical input, linked to the telehealth reading, as providing a practical route more obvious to the nurses. MOD discourse terms are also seen here being used both to present technology as a solution to human deficits, yet also to judge whether this solution is good or bad.

The terms used in TeleHealth (Cross, 2008) Extract 7 draw attention to many overlapping issues with professionals working within an organisation. They are depicted as making what can be seen as life-supporting judgements for and about patients, who are varyingly responsive to their opinions or whether they wish to share decisions about their lives. While the report sets out such choices as possibly good or bad, it also demonstrates many outcomes from introducing a piece of equipment that can work to the detriment or benefit of patients, nursing teams and organisations and to condition the choices they all make. On the face of it, stating this perspective would fit with the MOD discourse Greenhalgh et al. (2012) in promoting more “rational” decisions around the use of the technology. Nonetheless, when looking at the human and personal interaction of telehealth as debated object-in-use, a HUM discourse about control and lack of choice is still brought into play in this account, reflecting Foucault’s views, for example, see Kelly (Kelly, 2015) on technological discourses being bound up with discipline and control.

## 4.8 Brief discussion of discourse analysis of TeleHealth report (Cross, 2008)

The TeleHealth (Cross, 2008) report extracts showed Modernist MOD and Humanist/Phenomenological (HU/PH) discourses in particular. MOD discourse describing the research methods may particularly align with the telehealth system here, having been specifically set up to achieve system changes to reduce rates of hospital admissions and service use. Beyond this, the research design explicitly aimed to discover more about people’s experiences of using the equipment in practice, so requiring a Humanist/Phenomenological discourse. In many cases, this led to a problem-solving discourse also being needed to identify how different groups interacted with the telehealth system to make it fit better with their circumstances. Doing this allowed the text to show participants as actively finding ways to decide whether they would continue to use this telehealth system to help make their own day-to-day choices about how they lived their lives, in their own homes in the community.

## 4.9 Examining examples of discourses used in the CHATs report (Fordham, 2010)

An outline summary of this report is reproduced in Appendix D. The whole report included a quantitative study which is not summarised here, but the Background and Discussion sections which covered both quantitative and qualitative studies. A publication (Al-Oraibi et al., 2012) was later produced based on this report, but omitted all of the qualitative findings. Going on now to examine the CHATS (Fordham, 2010) study report, I aim to compare accounts of participants using AT in their own homes (as in the TeleHealth (Cross, 2008) report), with discourses that care staff, residents and managers in care homes settings used to talk about experiences of using AT. The CHATS study aim was for AT to help care staff reduce risks to residents from falls and other activities, rather than helping residents taking better decisions for themselves. Nonetheless, both staff and residents were interviewed about how AT did or did not prove useful to them.

### *CHATS (Fordham, 2010) Extract 1 – Modernist (MOD) and Problem-Solving (PS) discourses*

CHATS (Fordham, 2010) Extract 1 depicts the difficulties for staff in setting the mats up so that they are not oversensitive to the ordinary night movements that people have during sleep, as opposed to them getting out of bed, which was a possible danger.

**Fig. 4.17 CHATS (Fordham, 2010) Extract 1 – MOD and P-S**

> i Equipment
>
> P.50
>
> *Bed occupancy monitors were in use in both older and newer AT systems. In th old AT System a mat placed under the mattress is set up so that whenever a resident usually at risk of falling gets out of bed, the carer's pager is activated. This was reported as having been rarely used. In the new AT System a similarly-designed mat placed under the mattress activates an alarm on the carer's phone handset when the person gets out of bed. These mats were seen as potentially being very useful but in practice many staff reported difficulties for carers in setting them up correctly and in getting them to function either sensitively enough to detect and help prevent falls or at a level where the resident was not being woken every few minutes, following normal in-bed movements. Bed pressure mats have been difficult to set to a level of sensitivity which can distinguish between normal in-bed movement such as turning over or coughing and residents' getting out of bed where this might be risky. This left residents either effectively not monitored, unless staff sit outside their rooms continuously, or residents being woken by alarms (their own or other residents') many times through the night.*

drawing on a MOD discourse, with new AT mats having been expected to support staff at a distance to monitor vulnerable residents at multiple risks of falling from their beds or wandering unsupervised, "*particularly at night with fewer staff on duty*". This statement would fit with the kind of technical framework of assessment promoted by Scherer (Scherer, 2007).

However, in practice, the reported difficulties of calibrating needed for the equipment to pick up the relevant *"risky"* movement, but not the normally-not-risky movement, are presented as actually creating extra work and disruption, particularly for night-time staff routines. This contrast is picked out here by also using a HU/PH discourse to describe aspects of the technologies that people would have to struggle to accommodate in their everyday practices, echoing barriers found by studies, such as van den Heuvel et al. (van den Heuvel et al., 2012). A Problem-Solving P-S discourse is also therefore seen to be used here to set out people's struggles to achieve such accommodations.

A mat that signals someone might be falling out of bed does more than make a signal. It has implications for AT in use, as it can indicate i) problems from not setting the signal sensitively enough to prevent harm; ii) disrupting the person's life and so causing unnecessary agitation; iii) potential breakdown of the home's work system and disruption of carers' work routines when the signal calls to them.

### *CHATS (Fordham, 2010) Extract 2 – PE and P-S discourses*

CHATS (Fordham, 2010) Extract 2 describes the role of different staff in the home in assessing needs for people to use specific items of AT equipment. It also describes difficulties that some staff experienced both in making assessments and in getting residents to use the equipment provided.

**Fig. 4.18 CHATS (Fordham, 2010) Extract 2 – PE and P-S**

<u>ii Assessment for AT</u>

p.53

*Some managers found it relatively easy to explain how they assessed some needs for AT. However, when talking to care staff in the same home care staff said they would not usually be asked to assess with the competing pressures on their time making this less of a priority.*
*(S1) I haven't actually been asked to assess, but it's all down to time, it would be best probably to do it on my day off, but a day off is like gold dust.*
*(S3) Some care staff did not see themselves as having a role in assessment and were not sure who might do this but that in any case most residents would be offered similar equipment. 'No I wouldn't be involved in that, that would be the Health and Safety lady I think, actually they've all got pendants - the ones who are wearing them. I mean not all of them will wear them, you go to put them on, they don't want it. What can you do then?'*

Here, assessment seems to be presented generally as a given and routine practice for more senior staff. However, when the care staff were getting down to some of the finer points of how this might be done specifically for an individual resident and an individual piece of appropriate equipment, matching their personal needs was often seen to become more elusive as the conversation went on. For example, *"I haven't actually been asked to assess, but it's all down to time, it would be best probably to do it on my day off"* and *"In any case most residents would be offered similar equipment".* In this interaction the carer does not see themselves as being involved in assessment. So, therefore, they are not aware there was a procedure or process of matching a piece of equipment to a person's needs, for example: "*They've all got pendants… not all of them will wear them, you go to put them on, and they don't want it… what can you do then?"*. Such resistance to using equipment, where a person cannot see its use to them, is now widely reported in studies including the Whole System Demonstrator study (Sanders et al., 2012).

However, a PE discourse seen here becomes relevant because Health and Safety is mentioned and assessment is presented as an institutional process to document the 'facts' of an incident, reflecting a '*culture of litigation'*, not an intrinsic part of a process of matching the needs of the person with a piece of equipment to support them. This is also suggested by terms specifying difficulties in getting residents to comply when "*they don't want it*," showing the interests of the care staff and residents as being at odds.

This makes for a challenging situation when the producers of such equipment, at high cost to government, council and health budgets, are making the decisions about the designs, which equipment might eventually make it to the market, and cost-effectiveness (to them) determining decisions at a macro-level. This also makes apparent how the micro-level of individual use and need can be presented as incidental to these producers and providers.

Good assessments are therefore presented as playing an important part in ensuring that a person can benefit from AT. Completing these assessments is promoted as also giving feedback to the home's staff on the usefulness of introducing another level of care/support. For the organisation, assessments are put forward as a way of providing a more practical and efficient means of working, and using a Problem-Solving discourse identifies these ways of working at this point.

### *CHATS (Fordham, 2010) Extract 3 – Humanist/Phenomenological (HUM/PH) and Problem-Solving P-S discourses*

The new AT system, because it allowed direct voice communication, was repeatedly presented in this report and seen in Extract 3 as *"better"* and helping people feel *"more effectively cared-for"*.

**Fig. 4.19 CHATS (Fordham, 2010) Extract 3 – HUM/PH and P-S**

**iii Experiences of AT in receiving care**

p.57

In some cases, therefore the new AT system was clearly seen to help people feel actively and more effectively cared-for:

*'The new system is better, with the old system you rang a bell and "hoped". With this system you speak to someone and then you know that they know it is you.'(R6 Resident Male aged 80-89)*

In some homes the residents had humorously friendly names for the pendants. This resident (R6) went on to say:

> *'We all call it [pendants] getting our medals.'*

…..

Other residents were not able to decide if the equipment had been activated because there was no light signal to let them know.

*'I wouldn't like not to have it but if you press that (points to pendant) someone only comes if you're lucky. It doesn't light up when I press it so I'm in the dark. It's all right when it works.'*

*(R2 Resident Female aged 80-89)*

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uncertain in practice, not knowing what would happen if the pendant is pressed *"Someone only comes if you're lucky"*. Resident R2 is quoted as saying she has no light to indicate that anything or anyone is *"out there"* attending. So, she is "*left in the dark.*"

A HU/PH discourse is used here to express the complex feelings of people about the new kinds of AT-mediated care they were experiencing. The feelings highlighted included confusion brought about when the equipment did not include light signals to let them know when a signal had been sent. A P-S discourse is also seen in residents describing their own (more user-friendly?) names for the equipment, perhaps to challenge the impersonality of the pendants provided, and how they were struggling to work out how and when the equipment was being activated. Such complexity of feelings is increasingly seen in studies that include user experience, as well as technical function, in AT and Telehealth used in COPD, as in Brunton et al. (Brunton et al., 2015). Similarly complex feelings about care more widely are also seen in studies such as Speed (Speed, 2006), of service users resisting care labels like ‘patient’.

### *CHATS (Fordham, 2010) Extract 4 – Change Management (CM) and Problem-Solving (P-S) discourses*

CHATS (Fordham, 2010) Extract 4, juxtaposes statements that fit neatly with both Change Management (CM) discourses and a problem-solving (PS) discourse.

**Fig.4.20 CHATS (Fordham, 2010) Extract 4 – CM and P-S**

> **iv Experiences of using AT in delivering care**
>
> P.63
>
> In most cases, staff pointed to specific problems with specific equipment rather than seeing the idea of system as a whole as a problem, as a senior carer put it:
>
> *‘It definitely does the job, it’s just that it could be done better. It’s not the system or the theory behind it, it’s the product itself. The biggest trouble is it is not individual-specific and that’s where it goes wrong. It’s because it’s a product that is made for everybody and not for the individual.’*
> *(S23 Senior Carer aged 30-44)*

In Extract 4, the Senior Carer expresses puzzlement about the issues raised by the new AT system. On the one hand *"It definitely does the job"* and then qualifies this with their own experience of the problem that *"It could be done better"*: each positive statement is answered with a negative statement. Where more than one staff member receives an alarm call, they may not know or be able to use the system to check whether anyone else is answering, so either multiple staff responses waste staff time or calls go unaddressed.

Each defending statement, as with *"It's not the system or the theory behind it*" is then followed by *"It's the product itself"* to give reasons for the equipment not working on this occasion, notably in: *"It definitely does the job. The biggest trouble is it is not individual-specific and that's where it goes wrong. It's because it's a product that is made for everybody and not for the individual."*

Using a CM discourse tends to promote technology to be adopted and integrated easily after being introduced. Here, the statement *"It's not the system or the theory behind it"* gives reasons for accepting and adopting it. This is a case commonly promoted in product reviews, as noted by Park and Lee (Park, 2019). The concluding part of this sentence, which points out *"It's the product itself"* now brings in HU/PH discourse, to present the carer's experience of this technology as not person-centred. The carer suggests that: *"The biggest trouble is it is not individual-specific and that's where it goes wrong",* supporting the idea of a more individual design, and concluding *"It is a product that is made for everyone and not the individual".*

The language in this extract presents people having to do much unnoticed work to make the technology fit its intended role. The idea of AT being easily adopted and freeing up staff time, as claimed when CM discourses are used, seems to be put forward as a reasoned explanation by the carer, as a worker in the organisation that has adopted this new system. But carers are in the position of having to adapt to a new system in their work and may use a discourse of CM as part of fitting in with an organisation, which in turn promotes a CM discourse to position their system to staff and residents. The HU/PH and P-S discourses are brought into play when the report addresses how to recognise that the carer, whose job role is to get on with caring, is trying to negotiate drawbacks of the technology they experience in use at a personal individual level, rather than as a system. This depicts the organisation as trying to fit individual people with technology, in practice.

### *CHATS (Fordham, 2010) Extract 5 – Modernist (MOD) and Change Management (CM) discourses*

Extract 5, which includes two direct quotes, highlights staff reporting a mismatch between the supplier's way of explaining how to use the equipment during training, and the staff's own understanding.

**Fig. 4.21 0 (Fordham, 2010) Extract 5 – MOD and CM**

*v Training*

*P.67*

*Most care staff described the training from the suppliers as not being in a format they were easily able to use, as a care assistant suggested:*

*'A quick rough guide, and it all seemed okay but if you can understand, we want it written down how we can understand it.'*
*(S3 Care Assistant 45-59)*
*Several emphasised that they wanted more training, but in a different format that they could relate to:*

*'I would ask for more training, better training, written down how we can understand it, not by their manual, because when they come out they make it look so easy because they're doing it every day aren't they... Need to repeat, repeat, repeat so it gets in and let us write it down, which I believe they have asked for but that doesn't seemed to have happened.'*
*(S3 Care Assistant 45-59)*

This text reports staff suggesting the supplier's discourse is very different to theirs, underlined as the care worker points out, *"I would ask for more training, better training, written down how we can understand it, not by their manual, because when they come out they make it look so easy because they're doing it every day aren't they..."* They talk about the supplier using their own terminology, which seems to present technology as a product and a rational system, reflecting a Modernist discourse. The care worker underlines these contrasts by talking about how the trainer made the technology *"look so easy"*, but the training only gave them a *"rough guide"*, as they needed to relate to the practical work of care.

This is conveyed using HU/PH discourse terms to make visible the details and relationships in care work and technology in use in care. Where the report describes how technology is being used by the organisation providing care, using a CM discourse foreground concerns with getting the technology adopted and assimilated into the organisation's routines. Staff emphasise the very different types of explanations and understanding being activated or downplayed. They frame the supplier of the equipment, a trained technician, as explaining intricacies of the technology in use, in relation to one set of priorities and understandings of the equipment, to a care worker with very different priorities and understandings, wanting to access training *"written down"* … *"how we can understand it"* and needing to *"repeat, repeat, repeat"*.

The discourse analysis here identifies several discourses being drawn on in the evaluation text, which link to the many levels of interpretation and understandings of technology for stakeholders to assimilate when they try to relate technical information to care work. Using these discourses helps the report make a case for devising specific and clear training methods that will relate to the care work processes the technology is intended to support, leading to training that more fully engages all stakeholders in care homes with AT.

## 4.10 Brief discussion of CHATS (Fordham, 2010) report discourse analysis

These extracts from the CHATS (Fordham, 2010) report, as with the other two reports, showed the deployment of MOD and HUM discourses in particular to relate promoting technology to the human experiences of using it. Using Modernist discourse to describe the report's research methods may particularly fit with the aims of the CHATS (Fordham, 2010) study to examine changes across different types of care homes after AT equipment had been introduced, both short term and longer term. To evidence this, the design compared levels of incidents of harm experienced by residents, and how quickly care staff responded in order to inform changes in wider service use. Again, a HU/PH discourse was seen to fit with a research design that aimed to discover more about people's experiences of engaging with the equipment. In addition, a P-S discourse could also be seen to describe issues confronting different groups trying to make the practice of using AT equipment fit with their existing working routines, to make using it understandable and help communication in these homes. Each of these discourses may also reflect specific stakeholder groups' particular interest positions within organisations using assistive technologies. Using a PE discourse in the evaluation text can highlight such different interest positions, to refer to when considering implications, and this is seen in some places in this analysis of this report. Studies (Lingard & Grober, 2004) have highlighted how failures of communication are routine even in technically-informed operations.

## 4.11 Overall discussion and conclusion of Phase 1 study

This study began by applying the comparative analysis of discourses that Greenhalgh et al. proposed in their 2012 framework for examining services' 'organising vision' for using AT (Greenhalgh et al., 2012). In the reports I revisited here, I did indeed find elements of all four AT organising vision discourses that they identified. The extent to which each discourse was used in each report helped contextualise them in terms of the groups, technology and study aims being addressed in the three evaluation reports. These findings also align with the Greenhalgh et al.(Greenhalgh et al., 2012) findings that particular discourses are more often associated with specific positions of stakeholder groups within organisations using assistive technologies. However, while their paper concludes that the answer to achieving more agreement between groups is to promote effective inter-stakeholder dialogue, the analysis presented here shows it is also crucial to identify who has the power to invest and control the implementation of AT in each case. It is less likely that these three reports, commissioned by organisations invested in introducing different types of care technologies, would provide many examples of critical political economy (PE) discourse, since such evaluations are usually more concerned to identify how care may be promoted to increase organisational efficiency, especially at a time in the early 21st century when services are being overwhelmingly privatised. Providing such reports for those with more power in these commissioning organisations would therefore be more likely to promote a MOD discourse, which could present more optimistic and futuristic views of the possibilities of technology-focused care as beneficial. Examining the discourses being used in the reports showed that a MOD discourse had only limited uses for recognising and reporting the many problems that individual staff and residents talked about encountering in practice. Such challenges called for different discourses if the report was to show evaluation of AT in terms of ways these challenges might affect whether all stakeholders could or could not make the technology fit their world. All three reports included qualitative research to identify benefits and problems in people’s experience, and so it was logical that they all provided many examples of HUM /PH discourse. However, the first study report analysed (ATiCHo (Jepson, 2009)), additionally identified a P-S discourse being used to describe people actively interacting with AT so as to find ways to make them fit better with their lives and practical working routines.

The TeleHealth (Cross, 2008) and CHATS (Fordham, 2010) reports confirmed both this balance of discourses in using mainly MOD and HUM/ PH discourses to describe their studies' designs, and also their findings on uses of AT. Again, these reports also showed a P-S discourse being used to represent how participants in these settings were going about making the AT more 'user-friendly' and relevant to themselves, especially in assessing AT to be used for and by individuals. The discourse analysis of these reports, from aims to findings, is shown here to provide a means of documenting and accounting for, in more detail, what seems useful both to the person using AT directly and the staff member providing their care. Also, importantly for such evaluation reports, specific discourses can be seen to offer specific ways to describe and manage the problems arising for everyone involved. Identifying these ways could inform providers, designers and producers about what is or is not 'user-friendly'. Doing this could also help predict challenges for the uptake of AT, to further inform manufacturers and service managers on issues affecting its production and implementation.

It is notable in overviewing the results of this analytic exercise for all three reports how report methods and background descriptions almost always use an 'optimistic' Change Management (CM) discourse. This discourse is perhaps most relevant for addressing the interests of senior managers responsible for running the organisation. However, for evaluation team report authors, using a CM discourse for writing the report also has the effect of being seen to evaluate the AT in terms of its usefulness to the wider care system. We also clearly see that, as soon as issues or problems are described and where people's own words are quoted, more HUM-PH discourse terms emerge. Where the P-S discourse was used, this helped display how care staff particularly were actively working to manage concerns and challenges they were experiencing, so as to try to make the AT fit with their work in the organisation structures.

This discourse analysis firstly provides some empirical validation of the AT discourses suggested by Greenhalgh et al. (2012) being used in the context of producing three examples of evaluation reports of AT. However, it also reveals how other discourses are also being deployed to recognise the active contribution of care staff, health professionals and service users in making AT work within care systems. These findings suggest that a different critical analysis is needed to understand how stakeholders themselves specifically use discursive devices to position themselves in presenting their uses of AT in care, so they could still be seen as competent. This calls for a close, critical examination of how people were deploying devices relating to these discourses to connect with how they represented their own positions in using AT, as suggested by Greenhalgh et al. (Greenhalgh et al., 2011), but which Greenhalgh et al. did not include in their study. The Phase 2 study did aim to show how people themselves did this, and Chapter 5 reports the study findings which draw on the interview transcript data from the CHATS study (Fordham, 2010). This offers a detailed analysis of those discursive devices which the stakeholders themselves deploy and how they can be seen to use them.

# CHAPTER 5

# Phase 2 study findings: Developing Discourse Analysis using Discursive Devices (DDs) to identify DDs and how CHATS study speakers used DDs to represent AT uses

## 5.1 Introduction

This thesis is concerned with how people have used discourses to represent themselves, others and assistive technology in relation to using ATs in care organisations. It specifically presents the development and results of a study which aimed to critically examine how AT-related discourses may reflect and contribute to the power of older people and care staff in homes and in community settings in using AT. It focuses on the question of how using AT may become an ‘object of discussion’ through discourses representing its use. Van Dijk’s approach to discourse analysis (DA) emphasises how DA can move flexibly between macro and micro levels to display the relationship between uses of discourses and social action around social problems and power inequalities (Van Dijk, 2015) . Therefore, I began to use this DA approach to uncover the differing ways in which different people may express how they relate to accessing and using AT, by using discourses to position themselves and AT.

Chapter 4 reported how the four discourses suggested by Greenhalgh et al., (Greenhalgh et al., 2012) relating to organisation uses of AT, were being used in different ways within the three examples of evaluation reports of AT to fit each evaluation’s aims. My analysis of the discourses used in these reports also showed a further fifth discourse that was regularly being used in all three reports to recognise the active contribution of care staff, health professionals and service users to make AT work within care systems and thus showing other ways of evaluating AT. To understand this active contribution better, I argued that we needed to look even more closely and critically at the transcripts of qualitative interviews with stakeholders to critically consider how they may have used Discursive Devices (DDs) to position themselves, others and AT in care in terms of displaying competence in using AT in practice. The interview transcripts from the CHATS study provide examples of how people were using discourses, interpretative repertoires and DDs to represent and produce their own versions of practices related to AT. In this chapter I use the interview transcripts from the CHATS study to detail types and issues of positioning by applying analysis of DDs used in the interviews. I explain how I developed and applied this method, and critically consider the insights for understanding evaluative accounts of using AT from stakeholders themselves (service users and care homes residents, carers, and care managers). I describe and discuss the process of sampling in stages: moving from the sample of care homes, staff and residents for the CHATS study to finally selecting the qualitative interview transcript excerpts to use as the basis of Discursive Devices Analysis (DDA) and examining their uses to provide the findings for Phase 2. In Appendix D, I have briefly outlined the CHATS study design and the original interviews which provided the sampling pool for my Phase 2 study. The objective of these interviews was to determine how people perceived the outcome of providing (AT) equipment in relation to the needs of carers and residents to help prepare them to use it effectively (Smith et al., 2018).

## 5.2 Qualitative analysis for the CHATS evaluation report (Fordham, 2010)

The interviews were audio-recorded and transcribed. I coded the data from the interviews, each validated by one other project team member, to identify key themes (Braun & Clarke, 2006). This was the basis of the report provided to the research commissioners.

## 5.3 Phase 2 study sampling

The data for Phase 2 of this thesis were taken based on the original interview transcripts from the CHATS study. I re-analysed these using the DDA approach explained in Chapter 3. Therefore, the sampling strategy for this Phase 2 study reflected the aim of exploring the pool of Discursive Devices that residents, staff and managers were seen to use in the transcripts. To achieve this aim, I worked to produce a sample of transcripts that could provide a variety of opportunities for examining interviewees' uses of discourses to position themselves when discussing AT with me, the interviewer. This design was not to produce a 'case study', but to examine cases defined in differing and specific ways relating to the discourse analysis, as outlined in Chapter 3. The resulting sample of cases, in this sense, therefore, provides examples of DDs in use, but as I argue in Chapter 3, does not represent homes, roles in homes or types of people. The interviews used to provide the pool of cases had been collected through the sampling strategy set out for the Phase 2 study, which was distinct from the CHATS source evaluation of AT in services. As argued in Chapter 3, the sample of transcript extracts provided here are sufficient to identify diverse types and uses of DDs seen within the interviews ‘about’ AT, and to show ways in which interviewees were using these devices to shape their own accounts within their interviews with me.

**Table 5.1 Characteristics of Phase 2 study sample of care home staff and resident interviewees**

| PARTICIPANT ID /NAME (anonymised) | TIME SINCE AT INSTALLED | HOME ID (anonymised) | ROLE | AGE GROUP | SEX | TYPE OF HOME: TRAD CARE/ DEMENTIA CARE |
|---|---|---|---|---|---|---|
| S2/ Tina | AT > 6-12 months | BH | Staff Manager | 45-59 | F | TRAD |
| S5/ Jess | AT > 6-12 months | HH | Staff Carer | 30-34 | F | TRAD + DEMENTIA |
| S3 /Peter | AT > 6-12 months | BH | Staff Carer | 45-59 | M | TRAD |
| R6/ Richard | AT < 6-12 months | LC | Resident | 80-89 | M | TRAD |
| S1/ Sarah | AT > 6-12 months | WL | Staff Carer | 45-59 | F | TRAD + DEMENTIA |
| R02/ Jane | AT > 6-12 months | BH | Resident | 80-89 | F | TRAD |
| S7/ Trevor | AT > 6-12 months | HH | Staff Manager | 45-59 | M | TRAD + DEMENTIA |

Table 51 shows interview accounts drawn from participants, homes and staff and residents with a wide variety of organisations, roles, ages, and length of time since AT had been installed. I present each interview as a series of extracts, each linked to uses of talk reflecting the interviewee’s attention to ways of presenting positions relating to their own and others’ use of AT. The next section describes this method in more detail.

## 5.4 Methods of applying DDA

The method I have used to apply DDA here closely follows the approach used by Mueller and Whittle (Mueller & Whittle, 2011) both to analyse and present the analysis transparently, showing transcript text linking to specific DDs. I started by reading each transcript, looking for and marking phrases which suggested how people may be describing events and circumstances to present one or more cases for themselves in the interview (see case definition in Chapter 3). Identifying such a case then made it possible to recognise and identify the types of DDs (Lee et al., 2021) that interviewees were using to present it. I then re-read the transcript, looking more closely at specific words and what they show about the person’s use of such words to present the case in a particular way. To progress this analysis, I constantly referred to the table of DDs I had been developing in my earlier readings of the literature and the transcribed accounts of interviewees, to see which DDs were being used. This was an iterative process that meant I could also identify where a discursive device had not yet been included in the table but was seen to be used. Where this occurred, I again searched the literature to name and define this DD, adding its name, definition and use seen in one or more of my transcripts to the summary table of all DDs. I then re-read the phrases relating to each DD seen to be used within the context of the flow of discussion in the transcript, to identify what work the person speaking may have been using that DD to do in the context of that interview. I now go on to describe this process, to show what my approach meant in practice for presenting findings for this Phase 2 study.

In setting out the analysis, I provide a paragraph before each interview extract, giving a brief background sketch of the interviewee, in terms of the care home setting, their role in the home, their gender and summarising the cases about using AT they appeared to be making. I then provide a summary paragraph to track and define the type of case and how the person's account developed it. Within this I itemised each DD the speaker used to represent each case they presented in their talk, and explained how a DD could be seen to link to the specific phrases this person used. I selected one or more sequences of transcripts linked to each case they were presenting, to illustrate in detail how the person was specifically using these DDs to advance that case.

Each transcript sequence is reproduced in Tables 5.5-5.32 below, and each table has a heading with anonymised identifiers linking it to the whole original interview transcript and line numbers, to locate it in my dataset. Each table notes the DDs seen in that transcript extract. For each DD, an adjacent column sets out a reminder of its ID, defined in the full table of DDs (Table 3.2), then the target of each DD being used, i.e. the speaker themselves or another referent (e.g. staff member, resident, AT equipment, training). The table sets out a column showing each transcript extract in full, alongside its transcript line numbers and any DD used, in the order they appear in the extract. A final column in the table explains how the claim is being formulated through the DD spelling out the implications of making this case in this way, for the speaker to manage an issue of positioning and/or competence in using AT. After each transcript selection, I provide a paragraph summarising what case is being presented by using these DDs. The whole sequence of transcript selections is summarised in a sub-section, in terms of how one or more cases for managing positioning and competence in using AT has been presented by deploying the DDs in this person’s account.

After doing this for each set of transcript extracts, the last part of the chapter outlines how findings from individual transcripts show what discourses the different groups have presented, for what purposes and how they draw on discursive resources to do this. These findings include how discursive devices inform critical representations about each other, the AT and their relationships with other stakeholder groups, such as AT suppliers. The analyses of transcript selections from the seven transcripts summarised in Table 5.1 are presented in the next section.

## 5.5 Phase 2 study findings

This section sets out the detailed analyses with a text and table presenting and discussing each transcript selection, including a sequence of 'extracts' numbered in the table. Each selection is identified by an anonymising ID, consisting of a home ID; the interviewee's role in the home, e.g. Mgr. for manager or R for resident; the individual participant's ID, e.g. TZ02; and finally, a participant pseudonym, e.g. Tina. Each transcript discussion provides a summary giving some context and a basic description of the scope of the interview discussion. There then follows the table setting out the DD analysis showing the text in the transcript, where a DD term was linked to the text, definitions of the DD terms, the specific target of this DD, and the implications of using the DD for positioning people and objects within this AT-related discussion.

### *CHATS Interview transcript - Interviewee BH MGR TZ02 Tina*

**Background**

The manager of the BH home, Tina, told me that she was a trained nurse. She said that she had always enjoyed looking after older people when she worked in the hospital, even though it was not her specialism. She referred to looking after them as *"her passion"* and *"just loving them"*. When referring to AT initially, she used hospital technical terms like *"profile beds"*; she talked about the AT system of pendants, pull cords, bed sensors and having used trigger beams across the doors, but said these lasers were no longer in use. She detailed items of AT equipment without an extended discussion of how these were being used, and she avoided detailed descriptions of any assessment of the suitability of AT for residents. Throughout her account, she frequently reported procedures in place that constituted the running of the home. This included daily handover checks with the carers as they finished their shift and checks on the wellbeing of the residents.

**Table 5.2 DDs and claims formulations in Transcript BH MGR TZ02 Selection 1**

| ***BH MGR Selctn 1/* Extract No (line Nos)** | **Extract** | **DD term** | **DD definition/ Formulation of claim** | **DD target** | **Implications for managing positioning** |
|---|---|---|---|---|---|
| 1 (388-400) | T Like in the dementia unit there'll be always a senior person working with the care staff<br>M So they're experienced<br>T So they are experienced and then so they together with the care staff they can you know they can sort of say oh we've got a concern and staff are very they're very very good at picking even a small concern<br>M Mm<br>T Then bring it up to the to the senior as well as the recording | (DD29) Scripting<br>(DD29) Scripting | Opposite to Extreme Case Formulation (ECF) confirming as routine, as if following a script. Can present the account as normal and expected, and so, acceptable. | Self / Home staff<br>Self / Home staff | Tina uses scripting to assert an *"always"* ordered dementia unit with senior staff who work well *"together with the care staff",* all of which presents a routinely well-run home<br>More scripting is used to present her claim that collective methodical recording and checking routines happen *"every morning".* |
| 2 (LL402-420) | T It's also recorded<br>M Yeh<br>T In their daily information and we as like I'm just giving you an example<br>M Oh yeh that's good | DD29 Scripting | Opposite to Extreme Case Formulation (ECF) confirming as routine, as if following a script. Can present the account as normal and | Self/Home Staff | Tina uses more scripting to present her claim that collective **methodical** recording and checking routines happen *"every morning"* (she repeated) which even include the most senior staff *"a care coordinator"* or T (*"myself"*) who |

| *BH MGR Selctn 1/* Extract No (line Nos) | Extract | DD term | DD definition/ Formulation of claim | DD target | Implications for managing positioning |
|---|---|---|---|---|---|
| | T Of the dementia unit and then we have a care coordinator or myself every morning as well as the handover I go personally I go and read the daily information to pick up and see how each resident is<br>M That's every day then<br>T Mm | | expected and so, acceptable. | | *"personally"* is involved in reading information for *"each resident".* |
| 3 (420-434) | T Every morning I come on duty<br>M Mm<br>T That's my first thing as I come in go and read you know I read the message books as well we have messages amongst<br>M Mm<br>T The senior staff to communicate it to hand over if ever there's anything which has happened while you're not on duty<br>M Yes<br>T As well as sets up a marked contrast sets up a marked contrast going | DD9 Consensus / collaboration | Involves bringing others into the account – usually supporters. This may be abstract (e.g. principles) or tangible (e.g. friends, other groups. | Self / Home staff | Tina corroborates her account of routinely careful checking with more details of how she makes it her priority to *"read the message books"* which include *"messages amongst senior staff"* about what may have happened *"while you're not on duty".* |

| ***BH MGR Selctn 1/* Extract No (line Nos)** | **Extract** | **DD term** | **DD definition/ Formulation of claim** | **DD target** | **Implications for managing positioning** |
|---|---|---|---|---|---|
| | into each individual resident's information | | | | |

Initially Tina presented a sequence of details to demonstrate how she is efficiently running the home: procedures being followed, staff communicating and discussing their concerns and checking residents' records daily. She similarly specified what AT equipment they use. She described how the home might have access to equipment but did not use it with everyone, rather fitting it to their need for support. So, "*for somebody who is just wandering really wandering they had a profiling bed and because sometimes the bed sensor if you've got a profiling bed …doesn't work so we had a beam as he was prone very very prone for falls and a beam will let's say if he's in bed*" (L185-L188) "*it will register the movement the moment he tries to get up"* (L192). Tina pointed out later that they were not currently using this beam because *"the residents we have at the moment they don't need it but we can have it at any time we assess the resident"* (L233). Here she is using 'scripting' (DD29) to set out and confirm the routines she has in place and where *"we"* (in the home) are working to put these in place through regular reliable *"collaboration"* (DD9). This enabled her to make the case for representing the AT as fitting into their usual routines.

**Transcript BH Mgr TZ02 Selection 2** was chosen because it shows how, when discussing what she thinks about the AT equipment, Tina sets up a marked Contrast between her usually orderly routines and the severely disordering effects of AT, whilst avoiding blaming this disorder on any staff incompetence.

## Table 5.3 DDs and claims formulations in Transcript BH MGR TZ02 Selection 2

| ***BH MGR Selctn 1/*** **Extract N (line Nos)** | **Extract** | **Discursive Device** | **DD definition Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 1 (LL621-631) | T The actual product could be better<br>M Could be better?<br>T By miles<br>M What is the main stumbling block then?<br>T Okay the main stumbling block is if someone is ringing<br>M Yeh | DD5 Contrasts | Usually emphasise difference and gaps between two things. They contrast people (individuals' groups) or situations/ events (then v now). | | Tina asserts there is a marked contrast with their expectations of AT by saying the *"product could be better by miles*". She contrasts the idea of her smooth-running system with the AT which causes disruption, describing *"the main stumbling block is if someone is ringing"* (L629) i.e. (apparently wrongly) using that part of the AT system. |
| **Extract** 2 (LL633-646) | T For example we have residents like Fred in the main house, in the dementia unit where they just press.<br>M The pendant | DD7 Specificity | Provides specific, detailed examples (e.g. dates/statistics) to emphasise the 'truth' of something. | Staff/ Residents | Here Tina links the problematic actions with the specific example of *"the dementia unit where they just press"* and by detailing they are located in the dementia unit. |
| | T Yeh the pendant and when they press all the time it then blocks the system because with this person pressing and by the time you go and help. Because maybe another person is pressing | DD22 Excusing | Admitting the act in question is bad, wrong, or inappropriate, explains and tries to minimise culpability | Staff / AT | Tina offers an excuse (DD22) for behaviour that is problematic for the system and staff who she describes instead as *"going to help"* but which is blocked by the pressing first of *"this person"* then *"maybe another person*". |

| ***BH MGR Selctn 1/*** **Extract N (line Nos)** | **Extract** | **Discursive Device** | **DD definition Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 3 (LL647-654) | T Desperate - is pressing it, in desperate need for our assistance but then they they're in a queue you see<br>M Ah | DD2 Extreme Case Formulation (ECF) | Often justifies or imposes a version of events. It often generalises the extent/strength of something. | Usual routine/ AT | Tina emphasises a situation where there is a *“desperate need for assistance”* yet the AT system cannot prioritise different needs. She presents this as an Extreme Case Formulation of AT not working - even in desperate need. |
| | T And by the time you then attend<br>M To each one | DD22 Excusing | Admitting the act in question is bad, or inappropriate explains and tries to minimise culpability | | Tina is excusing staff not attending promptly because *“by the time”* the AT system puts the call in a queue, and so delays responding to each resident's call for help through the AT system. |
| **Extract** 4 (LL656-663) | T To each yeh so you're sort of placed in a queue so by the time you've gone to this person who is just pressing, pressing, pressing to clear the system off<br>M Mm | DD11 Three-part lists | Usually emphasises extent of something in terms of threes (“I do X, Y, and Z”). To emphasise extent of something, repeating an underlying concept. | Usual routine/ AT | Tina evokes a picture of much stress placed by the AT system on residents and staff by queuing them. Uses the 3-part list DD *“pressing, pressing, pressing”* and places emphasis on the person repeating their pressing because of having to wait with no clear reason. |
| | T This whoever is really in desperate need<br>M Who might be down the queue | DD2 Extreme Case Formulation (ECF) | Often justifies or imposes a version of events. It often generalises the extent/strength of something. | Usual routine/ AT | Here Tina says *“whoever”*, which shows how any person may be in the extreme case of *“desperate need”* to give their need weight, but even then, staff cannot respond to prioritise that need. |

| ***BH MGR Selctn 1/*** **Extract N (line Nos)** | **Extract** | **Discursive Device** | **DD definition Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 5 (LL665-671) | T And by the time you have got to the person who is desperate they'll think it's too late and they get frustrated they'll be saying we've been ringing, nobody has been helping us, you see what I mean<br>M Yeh | DD2 Extreme Case Formulation (ECF) | Often justifies or imposes a version of events. It often generalises the extent/strength of something. | | Here T uses various ECFs to present the extreme situation of the person *"who is desperate"*, *"frustrated"*, and themselves may think *"it's too late"* and that *"nobody"* was helping them. |
| | T Nobody came to see me, so they get frustrated which is fair enough, so it blocks | DD13. Display empathy/ sympathy | Displaying understanding of another's situation, particularly feelings, to make argument and ideas more balanced | | Tina displays empathy (DD13) by presenting herself as speaking the resident's words *"nobody came to see me"* - she can then be seen to be taking their side and understand their frustration *as "fair enough*". |

The tone of the interview changed markedly when Tina was talking about the appropriateness of the equipment. So, when she said, *"That's a different scenario altogether"* (L571), she used *"altogether"* to emphasise how the system was completely different from what they had expected it to do. (L575) (DD2 and DD5). The following transcript selection (L621-L671) illustrates how she sets up marked Contrasts between the smooth-running home and what they expected of the AT (DD5), the disruption that followed and the extreme case of resident desperation caused. She also sets out reasons to excuse staff inability to correct this. She starts by saying the *"product could be better by miles"* (L625), but that instead it raises problems and describes *"the main stumbling block is if someone is ringing"* (L629), i.e. wrongly operating part of the system. She sets out an Extreme Case

Formulation (DD2) of residents *“continually pressing and blocking the system”* and uses repetition of *“pressing”* as a multiple-Part List (DD11) to show just how dysfunctional and inflexible the system is / was. She Contrasts this (also using repetition for emphasis) with the desperation of residents and staff (DD2). She categorises the person ringing as *“someone”* and highlights that *“we”* do not know who is ringing. However, she links the person with “*the dementia unit where they just press”* (L633) and by detailing *“their”* location in the dementia unit gives an Excuse (DD22) for behaviour that is problematic for the system and staff. She Excuses (DD22) the staff response by describing the AT limitations in blocking and creating queues and staff trying to respond to people’s desperation. So, Tina is excusing late staff responses (DD22) by describing how the AT queueing system is not facilitating quick and appropriate responses with enough information to identify residents’ reasons for using the system, or to allow staff to act on residents’ requests for assistance. Repeating how frustrating this is and displaying Empathy (DD13), she says the desperation and frustration of residents is *“fair enough”* L671). Tina presents this as an Extreme Case Formulation (DD2) of AT not working for them.

The following **Transcript BH MGR TZ02 Tina Selection 3** shows how the care home staff are just left to get on with using the AT system. It also begins by showing how different actors attempt to shift blame.

## Table 5.4 DDs and claims formulations in Transcript BH MGR TZ02 Tina Selection 3

| ***BH MGR Selctn 3/* Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **DD Definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract1 (LL706-714) | T They would come (AT Supplier) came in and said oh you've got a poor reception in certain parts of the building there's<br>M Mm<br>T And then we say fine sort it<br>M Do they do that? | DD8 Blaming | Situates blame with a particular group/ person for a particular event/effect. But it sometimes has effects on the speaker; it may elevate the speaker (e.g. responsible). | AT installing company / home (building) | Tina asserts that the installation company themselves allocate blame to *"poor reception in certain parts of the building"* (i.e. on the part of the care home) so, providing distancing technical reasons rather than their company staff or their work |
| **Extract** 2 (LL715-74) | T Do something then because at the end of the day all we are interested is to have a product which works, and they're not interested<br>M They're not interested<br>T Yeh<br>M Why do you think they're not interested?<br>T Well we have called them and nothing<br>M Nothing develops?<br>T Really nothing hasn't you see what I mean and<br>M Mm<br>T I don't know I just I think all well I don't know I | DD5 Contrast | Emphasises difference and gaps between two things. They might contrast people (individuals/groups) or situations/events (then vs. now). | We (home)/ AT Installing company | Tina contrasts what the home's *"interest"* is, i.e. having an AT *"product which works"* and then repeatedly contrasts this with asserting and illustrating how the company are not interested *("nothing develops")* except in having provided a product and then negligently left them to *"get on with it.".* |

| ***BH MGR Selctn 3/* Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **DD Definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | think they're just interested with the…<br>M The equipment?<br>T The equipment that has gone and that's<br>M You mean they've provided, now you get on with it?<br>T You get on with it | | | | |

For example, the installation company themselves highlight *"poor reception in certain parts of the building"* (L706), i.e. shifting blame to the care home, so providing technical reasons for poor performance, rather than their company staff or their work. She Contrasts *"interest"* when explaining the home's interest is in having an AT product that works and then pointing out that they, the company, are not interested except in having provided a product and then left the home to *"get on with it".*

### *Case summary for selections from interviewee transcript for BH MGR TZ02 Tina*

Tina presents the case through setting out marked Contrasts in this interview, between the orderly way in which the home is managed, and the disorder that the AT system imposes on their working practices: disrupting the organisation of the home and leaving staff to deal with the problems it has created and for which the company shows no interest in providing help. She talks of the staff as working and reporting to her in a systematic and unproblematic way. She evidences this reliability by Specifying (DD7) how good they are at picking up even small concerns, ‘Scripting’ (DD29) how they communicate *“daily”* with her *“anything that has happened”* over the course of their work, and while she is not on duty. She clearly defends the staff against the AT system, putting some Blame on residents in the dementia unit for continually pressing their pendants and blocking the system. Her more open hostility is directed at the company that provided this system and reports that it blamed the poor signal in the home for all the problems they are experiencing. She used *“interest”* when explaining her own interest is in having an AT product that works and then pointing out that they, the company, are not interested except in having provided a product. The AT Tina shows as disrupting, rather than supporting the smooth running of the home. She argues that while the AT is a good concept, in actual use it is not practical in the ways that the home needed or thought it would be. She uses *“terrible”* (L2050) to convey how badly staff describe the experience of AT. She asserts that the manufacturers should speak with users to rectify the many problems they encounter. However, in contrast again, she says she is left to *“get on with it’*.

### CHATS interview transcript analysis for interviewee HH S S5 Jess

Jess is a Senior Care Assistant who is also a Relief Care Coordinator (stepping up to coordinate care when the Care Coordinator (*“Care Co”*) is away). She had progressed up the ranks to Senior, first working in a nursing home in a domestic staff role, then moved to this home as a care assistant. Her Care-Co work now is more involved with being in the office, while the Care Assistant role is more involved in the personal care of residents, which Jess says she much prefers because it involves people and not paper *"in the unit we're our own 'little family'"* (LL89). Jess is a senior care worker, which means, in this home, working in the dementia unit and in charge of the team working there. On the day of the interview, she was working in her other role of relief Care Coordinator, which meant working in the office and handing out pills. Jess began by giving an assured account of how the AT system works. She uses discourses initially to promote AT as a positive addition to the work of a carer, allowing them to get to the residents quicker (in cases, usually, of falls or wandering).

### Transcript HH S S5 Jess Selection 1

**Table 5.5 DDs and claims formulations in Transcript HH S S5 Jess Selection 1**

| ***HH S Selctn 1/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD Definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 1 (LL423-436 | J Yeh I mean ideally like I've said to T (manager) I would like all of them to have one down there really<br>M Would you?<br>J Yeh at least one in every bedroom<br>M Yeh why would that be?<br>J So that if they needed one it's there you know it's there to use<br>M Yeh<br>J Cos I do think that they do work really well, and we would know | DD9 consensus/ collaboration | This involves bringing others into the account – usually supporters. This may be abstract (e.g. principles) or tangible (e.g. friends, other groups). | Residents/ AT | Jess introduces the manager (higher order) as part of the plea to collaborate in her position as a carer and in supporting residents with equipment. Using *"ideally"* to present a reasoned stance and ending with *"really"*, giving power to her own position to judge the AT (monitoring mats) as working well backed by staff consensus in *"they work really well, and **we would know".*** |

| ***HH S Selctn 1/* Extract N (line Nos)** | **Extract** | **DD Term** | **DD Definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 2 (LL438-447) | M And in what way is it really good? I mean obviously you see that as really beneficial to people but<br><br>J Yeh because as soon as they put their foot on the floor<br><br>M Yeh<br><br>J That goes off<br><br>M Yeh | DD36 Claim | Displays awareness of potential reception(s) (e.g. disbelief) of the utterance prior to asserting it, seeking to ensure acceptance or acceptability. | AT | Jess corroborates the claim about how well they work by describing how *"as soon as they put their foot on the floor…that goes off*" (LL441-445). i.e. very promptly. |
| **Extract** 3 (LL449-459) | J Unless obviously you know the worst-case scenario, they move them out of the way which has happened before<br><br>M What, kick it under the bed?<br><br>J And they sort of kick it under the bed yeh but the majority of the time that's there and soon as they put one foot on the floor that's going off | DD16 Concession<br><br>DD36 Claim | Explicit acknowledgement of actual or potential counter-arguments to appear more balanced, informed, and thoughtful.<br><br>Displays awareness of potential reception(s) (e.g. disbelief) of utterance before asserting it, to ensure acceptance. | Residents/ AT | But again, she quickly makes a concession (DD16) that there can be a *"worst case scenario…"* (LL449) where *"they sort of kick it under the bed yeah, but the majority of the time that's there and soon as they put one foot on the floor that goes off."* (LL454-55)<br><br>So, she still puts forward the claim (DD36) that this device *works "the majority of the time".* |

| ***HH S Selctn 1/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD Definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 4(LL461-468) | M And does that make you feel supported in your work or<br>J Well yeh and it makes me feel happy that you know they're a lot safer if that weren't in place, they could be walking around in their bedroom have a fall and you know<br>M Yeh<br>J There's no measures in place to even try and stop that | DD5 Contrasts | Usually emphasise difference and gaps between two things. They might contrast people (individuals/groups) or situations/events (then vs. now). | Self/Home/ Resident/ AT | J contrasts how having the mats "*it makes me feel happy"* and corroborating this with "*that you know they're a lot safer"* by contrasting with the claim "*if that weren't in place, they could be walking around in their bedroom have a fall",* suggesting even worse outcomes. Contrasts with previous practice "*no measures in place to* ***even try*** *and stop that"* to position AT as a better option. |

However, the specific discourse Jess then goes on to use does not support such a positive view. Instead, she presents a picture of ways AT use falls short and of confusion when she specifies what happens when residents press their pendants, pull their cords or use their alarm mats. Nonetheless she does not use a demonstrative style nor language that expresses any frustration or annoyance, either for herself or for anyone else. She presents her answers diligently and conveys self-restraint and understanding of the issues by specifying examples of events, rather than blaming people from the 'in-group' of residents and staff. Jess begins by referring to a clear Consensus (DD9), with staff agreeing that they (monitoring mats) "*do work really well and we would know"* and corroborates the claim about how well they work by describing how *"as soon as they put their foot on the floor…that goes off*" (LL441-445). But again, she quickly makes a concession (DD16) that there can be a *"worst case scenario…"* (LL449) where *“they sort of kick it under the bed yeah, but the majority of the time that’s there and soon as they put one foot on the floor that goes off”* (LL454-55). So, she still puts forward the Claim (DD36) that this device works “*the majority of the time”*, so that she can emphasise the claim that they are good by referring to her own feelings of greater safety, *“it makes me feel happy that you know they’re a lot safer”*. She ends by Contrasting (DD5) this provision with the standard care: *“There’s no measures in place to even try and stop that”* (LL468).

In the first transcript (Selection 1) (**HH S S5 Jess)**, Jess makes the case that the AT equipment works well and that she and the staff are able to judge this.
She begins by referring to a clear Consensus (DD9) with staff agreeing that they (monitoring mats) *“do work really well and we would know”* and corroborates the claim about how well they work by describing how *“as soon as they put their foot on the floor…that goes off*’ (LL441-445). But again, she quickly makes a Concession (DD16) that there can be a *“worst case scenario…”* (LL449) where *“they sort of kick it under the bed yeah, but the majority of the time that’s there and soon as they put one foot on the floor that goes off”* (LL454-55). So, she still puts forward the Claim (DD36) that this device works *“the majority of the time*”, so that she can emphasise the claim that they are good by referring to her own feelings of greater safety, *“it makes me feel happy that you know they’re a lot safer”*. She ends by Contrasting (DD5) this provision with the standard care *“There’s no measures in place to even try and stop that”* (LL468).

### Transcript HH S S5 Jess Selection 2

Later on, talking about the pull cord, again Jess Specifies (DD7) how residents often do not understand how the AT system works, for example when a cord is pulled by a resident asking for help. She conveys how residents may hear voices which seem to be coming out of the wall.

### Table 5.6 Transcript HH S S5 Jess Selection 2

| ***HH S Selctn 2/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD Definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1 / (LL1152-69) | J Sometimes<br>M But not always<br>J Not always because um they're obviously laying in bed thinking where's that voice coming from<br>M Yeh<br>J And as far as they're aware that could be someone talking outside their door | DD7. Specific<br>DD13 Empathy | Provides specific, detailed examples (e.g. times) to emphasise 'truth' of something. Displays understanding of another's situation, and feelings, to show argument as more sensitive. | Residents/ AT | Jess shows she knows some residents may not understand, specifying (DD7) *"Not always because they're obviously lying in bed thinking 'where's that voice coming from'"* (L1156) and *"that could be someone talking outside their door"* (L1161). Displays empathy (DD13) and specifies (DD7) that when the staff answer, their voice is relayed to a speaker on the resident's bedroom wall (LL1169). This is despite the AT system being installed for over 12 months. |
| **Extract** 2 /(LL1170-74) | J You know they they can't always work out<br>M The source<br>J That is actually somebody talking to them through a speaker on their bedroom wall they just you know | DD13 Empathy | | Residents | Jess again presents empathy and some compassion (DD13) for residents' situation when they still lack understanding of the AT system *"It's hard for them to get to grips with it"* (L1174). |

| ***HH S Selctn 2/* Extract N (line Nos)** | **Extract** | **DD Term** | **DD Definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | M Yeh<br>J It's hard for them to get to grips with it | | | | |

## Table 5.7 DDs and claims formulations in Transcript HH S S5 Jess Selection 3

| ***HH S Selctn 3/* Extract N (line Nos)** | **Extract** | **DD Term ID** | **DD definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 1 /1235-45 | J I mean you know you sometimes they're sort of pushing the pendant it just it depends on the individual on what sort of things they actually want help with really, because we have got a rehab unit here as well, we have people coming from hospital after for instance they broke their hip and they come in for rehabilitation<br>M Oh right yeh<br>J The majority of these people are aged between sort of 60 and 80 really<br>M Yeh<br>J Um who are of sound mind if you like<br>M Yeh | DD7 Specificity<br>DD 8 Blame | Provides specific, detailed examples (e.g. dates/times, statistics) to emphasise the 'truth' of something. (Because it is more direct/forceful, it is often responded to with other specific examples.)<br>It obviously situates blame with a particular group for a particular event/ effect. Sometimes has effects on the speaker, e.g. to elevate them as e.g. brave, or to score points. | Residents | Jess specifies residents' use of AT as unreasonable when "*they're sort of pushing the pendant"* She also specifies a separate group in *"a rehab unit"* as not so old, "*majority …aged between sort of 60 and 80 really',* and more blameworthy as she defines, they "*are of sound mind'.*<br>Here Jess positions the rehab unit as a different group of "*people coming from hospital after for instance they broke their hip".* |

| ***HH S Selctn 3/*** **Extract N (line Nos)** | **Extract** | **DD Term ID** | **DD definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 2 / 1251-1254 | J Um and they are normally the worst culprits for always pushing their buttons, always pushing the pendants because they want you know like I say their tissues moved a bit closer they want their pillows moved up the bed and these are residents that are actually here to be rehabilitated to actually go home | DD8 Blame | | Residents/ AT<br>Residents | Here J uses a more specific discourse directly blaming rehab residents as "*the worst culprits"* for making trivial requests, positioning them as unreasonable users of the home's AT: "***always** pushing their buttons",* strengthening the claim with "***always pushing** the pendants".*<br>Blaming residents for (unreasonably?) calling for moving *"tissues a bit closer"* and "*their pillow moved up the bed"* , untypical because "*these are residents that are **actually** here to be rehabilitated to **actually** go home"* |

In describing what it is like working with the AT system, Jess describes the actual care work as being *"very similar"* (L1203) as to how they worked before. But *"obviously it has changed, it is in the fact that you are more aware of you know what helps the resident's needs"* (L1207). She also presents her own understanding of the boundaries of the residents' knowledge of the AT system when she says that the *"Majority of the residents do know that to push this pendant they are asking for help and a lot of the residents are quite you know forthcoming with that really" (L1212-L1213).* This allows her to suggest that 'regular residents' may be regularly using it (possibly over-using it?), combining Vagueness (DD6) with some understanding of how they can use the system to get the help they want.

Jess shows much less empathy when referring to residents in the rehabilitation unit, who are there for a short period before returning home. Then she uses her more Specific (DD7) discourse to attribute direct blame to them as the *“worst culprits”* (L1251) (DD8), describing their excessive use of the equipment, rather than suggesting they may not understand (perhaps because they have been there long enough to know how the system worked?) or any possible fault in the workings of the equipment itself. Here she highlights how these residents might ask staff to meet many trivial requests, Specifying (DD7) *“pushing the pendant because their tea hasn’t been stirred”* (L1235-1237). This extract shows possibly the only time Jess’s discourse becomes less empathic and more animated in presenting these residents’ use of AT as making demands for staff’s attention. Yet these temporary residents are in the home for only a matter of weeks. Again, Jess marks the Boundaries (DD35) of ‘this side’ standard residents as opposed to the ‘other side’ dementia residents spoken of in this interview and others.

The DDs she used to present this as a case showing her as sympathetic, while setting out the facts, were particularly Empathy/ Sympathy (DD13) and Specificity (DD7), backing up her case with corroboration and Authenticity (DD17), Formulating (DD19) and sometimes referring to a staff Consensus (DD9) on how useful the AT was. She did, however, concede (DD16) that there could be a *“worst case scenario”* (DD2) and allocated Blame (DD8) for overusing the AT to some temporary residents, more than to regular residents, by using vagueness (DD6).

### *Case summary for interviewee transcript HH S S5 Jess*

As a Senior Carer possibly with a stake in the running of the system, Jess cites negative examples of AT use but her agreeable manner of doing this and use of empathic DDs, downplay the criticisms she also presents. She therefore does not use emphatic devices like ECFs in the first section of the interview. Nonetheless, most of her specific descriptions offer a negative view of how the AT system works in practice, and how little the residents understand about how it works.

Early in the interview, Jess expresses how useful she thought the AT equipment was, but whenever she discusses items in more specific detail, she went on to reveal some drawbacks in using them. She highlights how when a resident presses their pendant, their room number registers on the carer's phone. If that resident is not in their room, then carers have to hunt round the building for that resident. The system does not report where the resident is in the home, only their room number. Jess identifies how having the same (ding dong) sound on every mat meant they knew something was happening, but not precisely to which resident.

She provides little specific discussion of how she or other staff successfully use AT equipment. She only refers to how night staff use this equipment but again relating it to what residents do with it, rather than staff. Exceptionally, she picks out as a distinctive group to Blame, the rehab residents (outsiders, not insiders), those with the most cognitive ability, as most actively 'misusing' the call system by pressing pendants for *"minor"* things. Again, Jess does not use a discourse that presents this as a personal complaint, but more to be seen as a matter-of-fact description of negative features of the system. This way of presenting highlights her footing as just a reporter of ‘facts’ and less as the author of opinions, actions or outcomes.

### *CHATS interview transcript - Interviewee BH S PL03 Peter – analysis*

This male staff member (Peter) had a carer role but says that he also did some handyman work which means that he also had extra AT system tasks and a role as AT ‘go-to’ person when things went wrong. Yet he describes himself as not that good with technology and he refers to another colleague, Samantha, who supports him with this. He describes himself as having done several manual jobs in the past, from roof tiler to forklift truck driver, and says he has two children and lives 10 minutes from the home, which is convenient for picking up the children from school. He presents a picture of the AT system as often down, and something he is not able to understand or sort out. He specifies faults and breakdowns, such as signals that did not work in different areas of the building; residents repeatedly pressing their pendant, so blocking the system; training that was minimal; and complicated written instructions.

**Table 5.8 DDs and claims formulations in Transcript BH S PL03 Peter Selection 1**

| ***BH S Selctn 1/*** **Extract N (line Nos)** | **Extract** | **DD term (ID)** | **DD definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1 (LL242-270) | P They have been here yeh they come out and explain it, I say explain, a quick rough guide over and it all seemed okay but if you can understand we | DD14 Footing (as animator not author of the phrase) | Positioning ourselves in relation to what we say either (originator), author (deliverer), animator and (receives and connects) | Self/AT Tech/ Training | He starts by saying *“They have been here….and explain it”* but distances himself from fully accepting this*: “I say explain, a quick rough* |

| ***BH S Selctn 1/* Extract N (line Nos)** | **Extract** | **DD term (ID)** | **DD definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
|  | want it written down how we can understand it<br>M Yeh |  | principal. Pronoun selection (e.g. “we”, “us”, “them”) is one way of doing this. |  | *guide”,* using the footing device as animator not author (*“they”* claim to explain). |
|  | P I think we’ve even phoned up and they’re very reluctant to come out<br>M Really so there’s some, did you have any training, when you…. | DD2 – Extreme Case Formulation (ECF) | Often justifies or imposes a version of events, generalises strength of something. | Home Staff/AT Tech | He distances technicians from staff concerns, with an ECF *“we’ve even phoned up*” and *“they’re very reluctant to come out*”. |
|  | P There I say there was training but like anything you don’t take it all in do you and even the books they give you I’ve, we had an incident last night when we were trying to deactivate a pendant cos that kept going off all the time. How you read in the book it wasn’t working wasn’t working<br>M Not as the<br>P No<br>M The information was<br>P We couldn’t cancel it | DD31 - Limiting | Restricting, restraining the domain of discussion making what is considered possible and logical while excluding other options from consideration. | Self/ Training /AT | Again, resists agreeing the training was actually full training: *“I say there was training but like anything you don’t take it all in do you”*. He specifies how inadequate the information, using an ECF, *“even the books they give you”*, contrasts with expectations of books giving clear, full information for staff to refer to in *“an incident last night”, a pendant cos that kept going off all the time”* but *“how you read the book it wasn’t working,* |

| *BH S Selctn 1/* **Extract N (line Nos)** | **Extract** | **DD term (ID)** | **DD definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | M So<br>P The only thing we could do in the end was park the actual call | | | | *wasn't working"* and later *"we couldn't cancel it".*<br>He underlines how this limited their options: *"The only thing we could do in the end was park the actual call".* |
| Extract 2 (LL271-300) | P Put that initially we would then put that person at a slight risk<br>M Because then they wouldn't have a pendant<br>P A buzzer they have one on the wall<br>M But not their individual one | DD10 Scene Setting | Narrative device using talk of past, recognisable situations, etc. Puts what follows into a context, prompting specific take on prior narration. | Home/ Staff / AT | He concedes this means their action here in *"parking"* the alarm put the resident *"at a slight risk"* (so avoids defining it as a serious risk). |
| | P No but you can imagine the frustration for the people who have the phones 111 cancel a few minutes 111 cancel a few | DD13 - Empathy | Displays understanding of another's situation, to make argument more balanced and sensitive. | Self / Home Staff | He then displays empathy saying *"you can imagine the frustration for the people who have the phones…"* |
| | minutes 111 cancel<br>M: So that comes up on your phone<br>P Yeh<br>M For that pendant | DD11 3-part list | Usually emphasises the limit of variability of something in terms of three's ("I do X, Y, and Z"). Often involves repeating an underlying | Home staff / AT | He emphasises the disruption this causes by copying the repeated calls using a 3-part list, "*111 cancel a few minutes 111 cancel a few* |

| ***BH S Selctn 1/* Extract N (line Nos)** | **Extract** | **DD term (ID)** | **DD definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
|  | P And that kept coming up and that kept coming kept coming up well you can park it we did eventually<br><br>M You know ways of doing that<br><br>P Mm but I I've never been shown the real basics of this phone I know how to answer a call I know how to call another one of my colleagues.<br><br>But the whole basics of the phone no I've not been shown | DD31 Limiting<br><br>DD32 Denial | thematic concept.<br>Restricting, the domain of discussion so makes what is considered possible and logical while excluding other options.<br><br>Refusal to accept usual negative self-attribute(s) often before expressing negative views against others. | Self / Training<br><br>Self / Training | *minutes 111 cancel".*<br><br>So his account of limited training and information excuses himself and staff from responsibility for harms. He limits the process of training saying, *"I've never been shown the real basics of the phone"* . He limits his state of knowledge to *"I know how to answer a call".*<br><br>Ends by flatly denying this had shown him how to use the phone (and so denies responsibility) *"the whole basics of the phone, no I've not been shown."* |

Peter starts by saying *"They have been here….and explain it"* (L242) but immediately distances himself from fully accepting this as truly explaining, *"…I say explain, a quick rough guide*", using the footing device (DD14) as animator not author of the phrase (presumably *"they"* would claim to be explaining) and formulating it (DD19) as *"a quick rough guide"* which *"seemed okay"*, again distancing (DD30) himself from defining it as actually working for him. He then emphasises how distant technicians are from staff concerns, using Contrast (DD5) between *“we’ve even phoned up*” and *“they’re very reluctant to come out”* (L248). He again uses the footing as animator device (DD14) to resist agreeing that the training was actually full training: *“I say there was training but like anything you don’t take it all in do you”*. (L252). He goes on to specify (DD7) how inadequate the information was by extending this as an Extreme Case Formulation (DD2) to *“even the books they give you”* (L253), which is also an implicit Contrast (DD5) with expectations that books should give clear and full information that staff can refer to, for example there was *“an incident last night, a pendant cos that kept going off all the time”*, but “*how you read the book it wasn’t working, wasn’t working”* and later, *“we couldn’t cancel it”* (L255), underlining how this Limited their options (DD31): “*The only thing we could do in the end was park the actual call”* (L267). He concedes this means their action here in *“parking”* the alarm put the resident “*at a slight risk”* (L71) (where he is avoiding more clearly defining it as a serious risk, which I clarify here as not having a pendant). He then goes on to justify this and also to try to show Empathy (DD13) by saying “*you can imagine the frustration for the people who have the phones 111 cancel a few minutes 111 cancel a few minutes 111 cancel*” (L279-80) and emphasising the disruption this causes by copying the repeated calls in his description using a 3-part list (DD11). So, his account suggests possible harmful effects of his (and staff) not knowing how to use the system, but being excused from responsibility for these harms because of the limits of their training and information. He also conveys these as both judgements and experiences which the staff share as a group by using *“we”* throughout or *“the people* [i.e. the staff] *who have the phones”* (L279). He goes on to formulate (DD19) this process as one where *"I've never been shown the real basics of the phone"*, limiting (DD31) his state of knowledge now to *"I know how to answer a call"* (L298) and flatly denying and excusing himself (DD22) as an individual who could be blamed for the system's harms (DD32): *"the whole basics of the phone, no I've not been shown.*"

In Transcript **BH S PL03 Peter** Selection 2, Peter makes a case for how serious the consequences were because the new system was constantly not reliable.

**Table 5.9 DDs & claims formulations in Transcript BH S PL03 Peter Selection 2**

| ***BH S Selctn 2/* Extract N (line Nos)** | Extract | DD Term | DD definition/ formulation of claim | DD Target | Implications for managing positioning / competence |
|---|---|---|---|---|---|
| **Extract** 1 (LL1824-1850) | P Mm yeh cos there are times when if something's not done you could have a serious accident here and then you'd you're going to feel very bad and guilty<br>M Well and you would | DD10 Scene setting | Narrative device using talk of past, recognisable situation. Puts what follows into a context, to prompt specific interpretations of prior narration. | Self | He uses scene-setting *"If something is not done"* then an outcome *"you could have a serious accident here"*, which refers to himself with consequences for others, if nothing is done, then collective feelings of guilt *"then you're going to feel bad and guilty"*. |
| | P You know say and take a worst instance a death<br>M Mm | DD2 Extreme Case Formulation (ECF) | Justifies or imposes version of events. Often generalises extent/ strength of something | Residents/ AT | He sets out the ECF of *"a serious accident"*, or *"even death"* as possible. |
| | P I couldn't do it because I had to go and get my kids from school guilt trip isn't it<br>M Mm | DD8 Blame | Situates blame with a particular group/ person for a particular event/effect | Self | He flags his possible feelings of *"guilt"* and *"blame"* because he *"can't do it".* |

| ***BH S Selctn 2/* Extract N (line Nos)** | Extract | DD Term | DD definition/ formulation of claim | DD Target | Implications for managing positioning / competence |
|---|---|---|---|---|---|
| | P If I'd have stayed, I might have been able to do something<br>M mm<br>P But I left my kids at school<br>M Mm<br>P: Samantha's not here Samantha's on holiday she`s away | DD22 Excusing | Admitting the act in questions is bad, wrong, or inappropriate, explains and tries to minimise culpability | Self | But he excuses himself from responsibility because he *"had to go and get my kids from school"* and his co-worker *"Samantha's on holiday away*". |
| **Extract** 2 /L1851-1871 | M You and Samantha work quite closely<br>P Yeh yeh yeh I mean we we are responsible for checking the bed sensors once a week which we do<br>M Yeh that's your jobs<br>P Yeh that's one of our jobs yeh and we do when we have problems we try and do it but that's<br>M Between you<br>P Yeh<br>M Try and work it out<br>P Yeh because there are times when we miss each other by the odd day or | DD29 Scripting<br>DD30 Distancing | Confirming as routine (as if following a script). Can present the account as normal and expected – and so, acceptable.<br>Remoteness in positioning from problematic interests to reduce contestation and challenges. | Self/ Staff co-worker<br>Self/ Staff co-worker | He uses scripting to represent his and Sam's regular AT responsibilities *"for checking the bed sensors once a week"*.<br>But he then went on to show their responsibilities and close working as rather more distant as they "*try and work it out"*, but have times where *"you won't have seen her for a while"* or *"miss each other*" or even contact without seeing *"sometimes you get left a note and sometimes you don't get anything".* |

| ***BH S Selctn 2/* Extract N (line Nos)** | Extract | DD Term | DD definition/ formulation of claim | DD Target | Implications for managing positioning / competence |
|---|---|---|---|---|---|
|  | M Yeh so you won't have seen her for a while<br>P So you know sometimes you get left a note and sometimes you don't get anything |  |  |  |  |

He uses the scene-setting device (DD10) *"If something is not done"* then an outcome, *"you could have a serious accident here"*, which refers first to himself and then includes consequences for others. If nothing is done refers to collective feelings of guilt, *"then you're going to feel bad and guilty"*. He describes the Extreme Case Formulation (DD2) (LL1824) of *"a serious accident"*, and *"even death"* (LL1833) as a possibility, leading to possible feelings of *"guilt"* and *"blame"* (DD8) but where he excuses himself from responsibility (DD) because he "*had to go and get my kids from school"* and his co-worker *"Samantha's on holiday away*". When I ask if he and Samantha worked closely, he uses scripting to represent their regular AT responsibilities *"for checking the bed sensors once a week"*, but which he then goes on to show as more distant (DD30), reducing both their close involvement with these responsibilities and from each other, *"so you won't have seen her for a while"* or even contact *"sometimes you get left a note and sometimes you get you don't get anything".*

Peter then describes the lack of support for staff using AT, in terms of a lack of help from people with more technical knowledge than the care staff. He Contrasts (DD5) trying to get help from the AT technical team when they visited the home, and being rebuffed by the technician saying, *"I haven't come here for that"* (L1777) and describes himself as trying to gain the technician’s cooperation by saying to him *“you may not have done but you could help us”* (L1778). His account suggests this could be an instance of the carer and the issue being excluded from (membership) categorisations (DD12), which could enable collaboration between people with different roles in relation to making the AT system ‘work’. He describes his (carer’s) plea to the AT technician, *“you could help us”*, showing his vulnerability as a non-technical care staff member needing a technical task he categorises (DD12) as *“help”*. Perhaps if Peter had a manager role, he could order technical support and have power to authorise this. But he is also defining *“us”* as the group of people working in the home, and the ATS technician as not an insider or onside as ‘one of us’ who is not prepared to *“help”*, whereas the technician’s brief from outside was that *“he’d come down to check”.*

## Table 5.10 DDs and claims formulations in Transcript BH S PL03 Peter Selection 3

| ***BH S Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning /competence** |
|---|---|---|---|---|---|
| Extract 1 (LL1777-1790 | P Yeh I remember there was a ATS bloke here one day we went to him with a problem he said Well I haven't come here for that (laugh) I'm sorting something else out okay you may not have done but you could help us<br>M Yeh and you had a specific problem with it | DD5 Contrasts | Usually emphasise difference and gaps between two things. Contrast people (individuals/groups) or situations/ events (then vs. now). | AT Technician | He contrasts trying to get help from the ATS technical team but being rebuffed by the technician saying, "*I haven't come here for that*" He describes trying to get the technician's help by saying to him "*you may not have done but you could help us"*, contrasting sticking to the brief with helping. |
| | P Yeh I remember I think it was a bed sensor at the time<br>M Yeh<br>P But he hadn't come down for that<br>M Yeh<br>P He'd come down to check something else | DD12 Member-ship Categ-orisation Device | These position individual people/ things into broader social categories (e.g. boy = son) which relate to other categories, to form collections/groups (e.g. family) carrying specific responsibilities and expectations invoked when referenced, e.g. known norms to belong and act in the social world. | AT Technician / Home Staff | Peter's account shows here the carer and their issues being excluded from membership categorisations which could enable collaboration between people in different roles to make the AT system 'work', if the AT technician provided the help they want as "***you** could help **us***" [my emphasis]. He shows himself as non-technical care staff needing a technical task he re-categorises as *"help"*. By defining *"us"* as the home staff, and the ATS technician as not an insider or 'one of us' not prepared to *"help"* by moving off his brief of "*sorting something else out"* |

### *Case summary for transcript for Interviewee BH S PL03 Peter*

The case Peter is making is that while the system often does not work, he – and his discourse includes other staff – is not getting enough support to fully use the AT or to adequately meet his AT-related responsibilities to fix it or even to deliver basic care. He uses various stake inoculation devices which may clear himself of blame for failing to understand or solve the problems with the system. He refers specifically to various people and places where he has asked for help and not been given it, including commissioners and installers of equipment. He also described needing written information to be provided in ways the staff might find easier to understand. He contrasts the difficulties of understanding the system with the official information. In these instances, more technically knowledgeable people come out to show them how to work the system and make it look easy, but do not enable staff to fully understand. Peter makes the case strongly that training and information has not been adequate to meet staff's needs to be able to fully use the system.

He does concede that some of the blame lies with him initially for not understanding. But he goes on to contrast the little he has been told and read with the technical expertise of people who were *"doing it every day"*. He is emphasising the lack of power of non-technically specialised carers like himself whose time is constrained. The overall account means that Peter is presenting an Extreme Case Formulation (DD2) of how impossible it is for him and his other care colleague to meet the additional specialist AT role they have been allocated.

The main DDs Peter used to present these stresses using AT were therefore again, Extreme Case Formulations (DD2), Specifying (DD7), categorising (events as risky and training as inadequate) (DD12), making Contrasts (DD5) between the support they were asking for versus the lack of information and collegial help in connection with the AT system. But he also emphasised how the AT system, even with drawbacks, nonetheless worked better than the old system in various ways.

### *CHATS interview transcript for interviewee LC R R6 Richard analysis*

This male resident (Richard), gives very brief answers, often restricted to *"Yeh"*, *"No"* and *"Not sure"*. This may have been because his usual conversational style was reserved or he did not have much information to share with me, or possibly that he did not want to elaborate on the topic of AT with me. Whatever the case for his brevity here, some of his replies were conveying definite views while others reported his uncertainties about how exactly the AT was meant to work. He described AT as responding to calls in a way the previous system had not done. However, he also described a lack of communication by the home to the residents about what using the new AT system would mean for them. He presented himself as having a work interest when the AT was installed, when he told me he had previously been a cabinetmaker. He expressed clear interest in the workmen's activities around this home when they were recently installing the system. He himself had had a neck pendant for a few weeks. In common with many other residents, he presented himself as someone able to act on emergencies involving other residents.

.

## Table 5.11 DDs and claims formulations in Transcript LC R R6 Richard Selection 1

| ***LC R Selctn1/*** **Extract N (line Nos)** | Extract | DD Term | DD definition /Formulation of claim | DD Target | Implications for managing positioning /competence |
|---|---|---|---|---|---|
| **Extract** 1 (L114-163) | M And nobody did come and say this is going to happen now<br>R No not to me<br>M No so nothing was said about it<br>R No (pause)<br>M So what did you think when you were given the pendant or when the pulley went in your room?<br>R One day they started issuing pendants<br>M Yeh<br>R With a room number on and the cord system operated and you're talking to a person<br>M If something comes new in your room and it's a cord did somebody say to you now you have to pull this if you need anybody? | DD32 - Denial<br>DD25 - Hedging<br>DD12 Membership Categoris-ation Device (MCD)<br>DD33 - Metaphor | Refusal to accept usual negative self-attribute(s) often before expressing negative views against others.<br>Not taking sides in a particular cause, by expressing caution or uncertainty.<br>Position individual people/ things into broader social categories (e.g., boy = son) related to other groups (e.g. family) which invoke specific responsibilities and expected social actions | Staff/ AT<br>Staff / AT | Asked if anyone had told him Richard replies *"not to me*", denies anyone had informed him.<br>However, he repeatedly hedges this denial by saying *"I can't remember them saying it"* (L134; L159; L163), so he avoids making his denial a specific accusation.<br>Richard uses several devices to convey the process for installing AT as depersonalised, uncertain. When asked when the equipment went into his room, he categorised this (DD12) as *"they started"*, emphasising the impersonal actions of staff referring to "*them"* not involving residents in the process.<br>He uses the impersonal, regimenting metaphor (DD33) *"issuing pendants"* and specifies mechanical features, *"room number on and the cord system operated*", and contrasted this with more personal contact *"you're talking to a person"* (L129). Yet he even describes *"this person*" almost as an object, certainly not by anyone's name. |

| ***LC R Selctn1/*** **Extract N (line Nos)** | Extract | DD Term | DD definition /Formulation of claim | DD Target | Implications for managing positioning /competence |
|---|---|---|---|---|---|
|  | R No I can't remember them saying<br>M No nothing was said, you were given a pendant, so how did you know how to use it?<br>R You knew … (2.4) you were doing something but uh<br>M M-hm<br>R Didn't know what exactly<br>M You didn't know exactly what was going on, you knew the work, saw there was the workmen, and they were here for a while were they?<br>R Yeh several weeks<br>M Putting in everybody's room<br>R Several weeks yeh<br>M But when they come to put it in your room nobody said anything<br>R No<br>M No that's all right<br>R I can't remember them saying it<br>M No sure<br>R I can't remember them saying anything | DD6 - Vagueness | Image meant to convey a thought more forcefully and vividly than a plain statement. so avoiding the need to back claims with facts<br>Provides a flexible means of displaying an effect or (effectors) problem but minimises the possibility of being 'wrong'. As a result, it is also weaker and more prone to stake/interest exposures. |  | When asked if anyone had explained to residents about pulling the cord *"if you need anybody"*, he provided a vaguer answer, not saying directly anyone had or had not explained, but *"No, I can't remember them saying"*. When asked, *"so how did you know how to use it?*' he again avoided stating he did not find out anything specific by being vague, on what they knew *"You knew … you were doing something but …"*, adding "*Didn't know what exactly",* while he repeatedly re-emphasised this taking *"several weeks"*. But when I re-checked if anyone had said anything when the system came to his room, he repeated not being given information …<br>…but repeatedly described his recall of this as vague *"I can't remember them saying it…"* or *"anything"*…. |

| ***LC R Selctn1/*** **Extract N (line Nos)** | Extract | DD Term | DD definition /Formulation of claim | DD Target | Implications for managing positioning /competence |
|---|---|---|---|---|---|
| | | | | | |

Throughout this discussion Richard repeats the Contrast (DD5) between now being able to *"pull the cord and someone* [will] *answer"*, emphasising "*which they didn't before"* (L39), with previously having to pull a button and *"just hope"*.

He was quite emphatic that it was *"much better"* (e.g., L79), contrasting this with the previous bell system where *"you didn't know whether they were receiving it"* (L451). At many points in the conversation Richard presented the AT as much more personal, *"They speak to you …So you're contacting a human being"* (L67-71), and evidencing this more personal touch by specifically reporting his name being used when being asked what his problem was: *"They say, Richard, what's the problem?"* (L600) and that *"…you know someone is definitely listening"* (L955). At various points he repeated the Contrast between the new system and the emotional uncertainties raised by the previous system which required "*you…to ring and hope someone's going to answer"* (L588), and right at the end of the interview, *"you just pressed the button and hope someone is listening"* (L963). He linked this personal and more reliable responsiveness to feeling safer. When asked what change the new system made for him, he referred to his feelings (although slightly depersonalised), *"You feel more secure"* (L426) because "*Don't matter where you are, they know who's ringing"* and uses the Extreme Case Formulation (ECF) *"You* *can* ***always*** [my emphasis] *summon help".* However, this contradicted his earlier account of being *"downstairs and sometimes I can't get a signal"* (L375) and when I asked how that made him feel, he described it as *"a little bit isolated really".* He also reported staff having *"problems clearing the system"* (L400), but avoided allocating responsibility or blame for this (DD8) to the staff by saying, *"I don't think they had enough tuition"* (L404). Interestingly, he was not saying that the new AT required *"hope"*, even though he reported various aspects where he and it were uncertain.

Richard's early description of the new AT system as more personal contrasts with his account in transcript Selection 1, that it was introduced in a way in which the system or staff gave them no information about it happening, reasons why, or even how to operate the equipment they were expected to use. However, he did not specifically make this contrast with his earlier view that the new AT system was more personal.

Transcript **LC R R6 Richard** Selection 1 emphasises how, responding to my question, *"Did nobody come and say this is going to happen now?"* (L114) he replies, *"not to me"*, Denying anyone said this (DD32) (L116). However, he repeatedly Hedges (DD25) this denial saying, *"I can't remember them saying it"* (L134; L159; L163), so he avoids making his denial a specific accusation. Richard uses several devices to convey a depersonalised, distancing and uncertain process for the AT installation in their home. He specifically avoids suggesting a consensus view of what happened by clearly categorising it as his alone. When I asked what he thought when the equipment went into his room, he categorised this (DD12) as “**they** [my emphasis] *started*”, emphasising the impersonal actions of staff and referring to *“them”* not involving residents in this process, using the impersonal, regimenting metaphor (DD33) *“issuing pendants”* (L125) and mechanical features *“room number on”*, *“the cord system operated”*, then suddenly describes this making a Contrasting (DD5), more personal contact “*you’re talking to a person”* (L129). Yet he even describes *“this person”* almost as an object, not using anyone’s name. When I asked if anyone had explained to residents about pulling the cord *“if you needed anybody”* (L132), he now provided a vaguer (DD6) answer which did not say directly that anyone had or had not explained, saying “*No, I can’t remember them saying”* (L134) and again categorising as *“them”.* When I asked, *“so how did you know how to use it?”* (L136) he again presented with some hesitation as not finding out anything specific by being vague (DD6): *“You knew …* (2.4) [pause] *you were doing something but uh”* (L138) adding *“Didn’t know what exactly”* (L142). When I asked about what he knew when the workman was putting in the system (he had described this quite specifically earlier again as workmen being there but *“I didn’t know, I thought it was electrical”* (L108)), he emphasised and re-emphasised this taking a long time because they had been there “*several weeks”* (L147 and L151). When I checked again whether anyone had said anything when the system came to his room, he referred to not being given information but repeatedly described his recall as being vague (DD6) on this. Throughout, he emphasised distance of staff from himself and residents, by categorising staff (DD12) as “*they”* (e.g. L125) and *“them”* (e.g. L159).

Richard describes how he was able to use the new AT equipment to act in helping another resident in transcript Selection 2, yet somehow, he kept his distance from other people in doing so.

### Table 5.12 DDs & claims formulations in Transcript LC R R6 Richard Selection 2

| ***LC R Selctn2/* Extract N (line Nos)** | **Extract** | **DD term (ID)** | **DD definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning /competence** |
|---|---|---|---|---|---|
| **Extract** 1 (LL169-197) | R Well good job I did because one of my room mates nearby in the room fell out of bed<br>M Somebody next to you? | DD10 Scene-setting | A narrative device to talk about past, situations. Puts what follows into a context, prompting specific views on the narrative. | Self/ Roommate/AT<br>Self/ AT | Richard provided scene-setting of AT working as a means for him to actively work to help others. He positively ("*good job I had it*") sets the scene as *"one of my roommates fell out of bed".* |
| | R I raised the alarm and had to pull the cord<br>M And you pulled your cord?<br>R Yeh<br>M In your room?<br>R Yeh<br>M And what happened then?<br>R Well they come they came straight away more or less<br>M And did you tell them that something had happened?<br>R Yeh<br>M What, did you hear something? | DD7 Specificity | Provides specific, detailed examples (e.g. dates/times, statistics) to emphasise the 'truth' of something. | Self/Staff/ Roommate /AT | He then gives a 'factual' account specifying details about what happened *"I raised the alarm"* and suggests pressure to take action by *"and **had to** [my emphasis] pull the cord"*, and confirms the effectiveness of his action (and of using AT) in a factual way *"they came straight away"*. Again, he does not name a member of staff (saying "they" again), or name roommates, conveying impersonal life within the home but acting to do what staff would do in this sort of situation. |
| | R Well I heard a thump<br>M Ah yeh just bang | DD7 Specificity | Provides specific, examples to emphasise | Self/Staff/ Room mate/ AT | He repeats the story, adding more specific and dramatic details *"I heard a thump".* |

| ***LC R Selctn2/*** **Extract N (line Nos)** | **Extract** | **DD term (ID)** | **DD definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning /competence** |
|---|---|---|---|---|---|
| | R Person was crying out for help, so I pulled my cord and raised the alarm | DD12 Membership Categorisation Device MCD | "truth" of something.<br>MCDs position individual people/ things into broader social categories (e.g. boy = son) which relate to other categories, to form groups invoked when referenced, setting norms to belong and act in the social world. | | He categorised this as an emergency needing someone to respond to it, "*Person was crying out for help,* ***so*** [my emphasis] *I pulled my cord and raised the alarm"* |

Richard presented AT as offering a means for him to work altruistically and actively to help others. Interestingly, he gave an account of this almost to sidestep having to answer my question about *"what was happening in your life?"* when the AT was installed. He started quite abruptly but positively *("good job I had it"* (L168), setting the scene (DD10) as *"one of my roommates fell out of bed"* (again depersonalising his account by not specifically naming the roommate). He then gives a 'factual' account, providing specific details (DD7) about what happened, *"I raised the alarm"*, and suggests the pressure to take action by "*and* ***had to*** [my emphasis] *pull the cord"*. He confirms the effectiveness of his action (and of using AT) in a factual (DD7) way too, *"they came straight away"*. Again, he does not specifically name a member of staff (saying *"they"* again). However, we do not know if he is doing this to make a tacit comment on the impersonal nature of care given or, since he does not even name roommates, the impersonal life within the home. The only person whose name he refers to in the whole conversation is his own, Richard, and seeing AT as more personal because it names him. Later he repeats the story, adding more specific (DD7) and dramatic details, *"I heard a thump"* (L192) and then categorising this (DD12) as an emergency which someone needed to respond to by saying, *"Person was crying out for help,* ***so*** [my emphasis] *I pulled my cord and raised the alarm"* (again, he does not name the *"person"*).

**Table 5.13 DDs and claims formulations in Transcript LC R R6 Richard Selection 3**

| ***LC R Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **DD definition/formulation of claim** | **DD Target** | **Implications for managing positioning/competence** |
|---|---|---|---|---|---|
| Extract 1 (LL238-66) | M did the other people that are in here, talk about it with each other when they got them?<br>R Obviously (laugh) they talked about wearing a pendant<br>M Yeh<br>R And pressing the pendant have to light up<br>M When you press it<br>R Yeh<br>M So unless it's lit up its not working | DD9 Consensus/ collaboration<br>DD12 MCDs | Involves bringing others into the account in support. Can be abstract (e.g. principles) or tangible (e.g. friends, other groups).<br>MCDs position individual people/things into broader social categories which invoke groups setting norms to belong and | Self/ Roommate/AT<br>Self/ AT<br>Self/ Staff/ Roommate/ AT | Richard describes one occasion when he uses an AT device, but to refer to others (not including himself) all joking (DD9) about getting the AT and calling the pendants *"medals"*.<br>At no point does he categorise (DD12) this group as *"we"*, but always as "*they" or them"* - even though he ends this exchange exclaiming *"obviously"*, then laughing when I asked if the other people talked about it with each other when they got the pendants. He was |

| ***LC R Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **DD definition/formulation of claim** | **DD Target** | **Implications for managing positioning/competence** |
|---|---|---|---|---|---|
| | R No<br>M It has to light up and what did all the other people think about wearing these pendants and having this<br>R Well they made a joke of it (laughter)<br>M They were joking what were they saying<br>R A medal they called it the medal<br>M Oh the medal oh you'd all got a medal<br>R Yeh (laughter) | DD30 Distancing | act in the social world.<br>Remoteness in positioning from problematic interests to reduce contestation and challenges | Self/ Staff/ Roommate/ AT | distancing (DD30) himself from both the pendants and the other residents, when laughing and saying other residents were making a joke of it, i.e. distancing themselves from taking the AT seriously.<br>He laughed again when saying *"they made a joke of it* (laughter)") …<br>The joke was referring to the military metaphor, *"A medal, they called it the medal"* – i.e. the AT pendant as decoration and not something useful. |

In the next transcript **LC R R6 Richard** Selection 3 (TS3) Richard describes one occasion when he uses a consensus device (DD9) to refer to others (but does not include himself), joking about getting the AT and calling the pendants *"medals"*. At no point in this exchange does he categorise (DD12) the group as *"we",* but always as *"they"* or *"them".* This is even though he ends this exchange by laughing himself and exclaiming *"obviously"* when I ask if the other people talked about it with each other when they got the pendants. He was distancing (DD30) himself from both the pendants and also the other residents, although he did laugh again when saying, *"they made a joke of it* (laughter)" (L258), referring to the military metaphor (DD33), *“A medal, they called it the medal”* (L262). But this makes the AT pendent a decoration and not something seen as consistently useful by him or the other residents.

### *Case summary for Transcript LC R R6 Richard*

The DDs Richard used most often were therefore almost neutralising or limiting conversation and engagement with the interviewer, the staff, the residents and in some cases the AT. He used Scene Setting and provided Specifying and Categorising (MCD) events to make quite clear value judgements. These include making Contrasts between the responsiveness of the system before and after the AT had been installed, and that he himself was able to use it to get help more quickly. He also referred to aspects of using AT which he found more personalising (hearing a voice where people greeted him by name) than previous arrangements. However, he used vagueness and impersonality at many points in the interview, which seemed to convey his own detachment from events and people, or to more indirectly convey how residents did not get information and/or have any personal involvement with the implementation of the new AT system.

### *CHATS interview transcript - Interviewee WL S SO01 Sarah – analysis*

This is an interview with a staff member (Sarah) who referred to herself as *“an ordinary care assistant”* (L464), but when I said that was not necessarily *“ordinary”* she replied, *“Well I think I’m brilliant… you’ve got to blow your own trumpet, don’t* *you"*. She worked on the specialist dementia unit and had been working at this home for over 10 years, mostly on this unit. The following Transcript **WL S SO01 Sarah** shows Sarah positioning herself as someone who was not really controlling her work, minimising her responsibility in many ways.

**Table 5.14 DDs and claims formulations in Transcript WL S SO01 Sarah Selection 1**

| ***WL S Selctn1/*** **Extract N (line Nos)** | **Extract** | **Discursive Device** | **DD definition Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1(LL160-66) | M And that's when you do the drugs?<br>S That's when you do the drugs<br>M And this is the dementia unit?<br>S This is the dementia unit | DD34 Echoing | Mirroring or copying words or expressions of another speaker, which emphasises similarities. | Self/ Researcher | When I ask was that when she did the drugs and was it in the dementia unit, Sarah simply repeats the same phrases I used, showing her as taking the same position as me. |
| Extract 2(LL730-32) | M And that would go off on their phone?<br>S That will go off on their phone | DD34 Echoing | Mirroring or copying words or expressions of another speaker, which emphasises similarities. | Self/ Researcher | When I ask asking how a signal from a resident is activated on the carer's phone, i.e. would it go off on the carer's phone, Sue repeats the expression. |
| Extract 3(LL761-65) | S They're actually on the walls, they're actually on the walls<br>M That's a pull cord?<br>S That's a pull cord | DD34 Echoing | Mirroring or copying words or expressions of another speaker, which emphasises similarities. | Self/ Researcher | To check what is on the walls I ask what the arrangement for the bathroom is. Sarah again uses echoing, seeming to confirm what I have suggested |

| ***WL S Selctn1/*** **Extract N (line Nos)** | **Extract** | **Discursive Device** | **DD definition Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 4 (LL849-859) | M The firm?<br>S The firm | DD34 Echoing | Mirroring or copying words or expressions of another speaker, which emphasises similarities. | Self/ Researcher | I ask if they got training from the firm when the system first went in. She again repeats my words, confirming they did this training. |
| **Extract 5 (LL**1080-1084) | S That people have got them on their arms or round there.<br>M The pendant?<br>S The pendant | DD34 Echoing | Mirroring or copying words or expressions of another speaker, which emphasises similarities. | Self/ Researcher | Sarah at first evades addressing the general term *"equipment"* and answers that with a question, *"I think I think like the personal alarms?"* (L1076) "*That people have got them on their arms or round their..".* To clarify what we are talking about, I seek to confirm *"the pendant"*, again she repeats this. |
| Extract 6 (LL1088-1093) | S I think that has helped a lot because I mean if they've actually had a fall, I mean they could press that but they couldn't pull a cord that was on a wall could they<br>M Because they're on the floor perhaps<br>S Because they're on the floor | DD34 Echoing | Mirroring or copying words or expressions of another speaker, which emphasises similarities. | Self/ Researcher | Further discussing the difference in the usefulness of the pendant over the pull cord, Sarah pointed out the pendant had helped "*but they couldn't pull a cord that was on a wall"* and again confirming my suggestion here of the resident being on the floor. |

The transcript shows Sarah positioning herself as someone who was only the animator, not really controlling her work, minimising her responsibility in many ways, even when being interviewed. There are many instances where she answers in the same terms that I have just used to ask her something. Sarah appeared to be using this echoing device to block me from asking further, more committing questions about how useful she found AT. Echoing (DD34) means she presents herself as providing complete agreement to what I have suggested, and that does not allow me any room to come back to her, as she has then provided what I was asking for.

Early on in the interview I as Sarah about her job and what it entailed. She describes it as **"*having* to do"** (my emphasis): *"I have to do baths and things like that"* (L60), *"I have to step up and do drugs"* (L154), so describing her role as someone whose footing (DD14) is only as animator of these orders and who is not able to control their own work situation, rather seeing it as being told what to do. Similarly, when she wants to refer to a resident, she asks for permission to say their name: "*And yeh another, can I say her name or not or am I not allowed to say someone else's name?"* (Line L69). Here she checks to confirm that she is allowed to refer to particular people in the interview, as she is in an interview situation giving details about her job. She seems to want to make a point that she is not going to give too much away without having clear permission.

This next transcript **WL S SO01 Sarah Selection 2** shows Sarah talking about her work having changed for the better, referring not to AT itself but to non-AT-related work and equipment.

### Table 5.15 DDs & claims formulations in Transcript WL S SO01 Sarah Selection 2

| ***WL S Selctn2/*** **Extract N (line Nos)** | Extract | DD term (ID) | DD definition/formulation of claim | DD Target | Implications for managing positioning / competence |
|---|---|---|---|---|---|
| **Extract** 1 (LL195-217) | S Yeh I have seen quite a few changes<br>M Mm<br>S With the rules and regulations and all the new things that have come out and all the like different machinery<br>M Yeh | DD7 Specificity | Provides specific, detailed examples (e.g. dates/ times, statistics) to emphasise the 'truth' of something. | Work tasks/ equipment. | Sarah is more expansive about describing equipment in practical instrumental terms, but does not necessarily directly answer my questions about AT. She provides specificity (regarding rules and regulations) but takes the focus away from her own use of AT. |
| | S The hoists and things like that that have changed<br>M Yeh<br>S Through the years<br>M Yeh<br>*S* How you can handle the residents and things like that as well<br>M And is that for the better or worse or<br>S I would say definitely for the better because you're not having to do so much heavy man-handling, you're the hoists are doing it for you | DD5 Contrasts | Emphasise difference and gaps between two things. May contrast people (individuals /groups) or situations/ events (then vs. now) | Work tasks | After years in the same role Sarah identifies changes, some she says for the better. *"Yeh, I have seen quite a few changes"*. When I asked whether this meant her work had changed for the better, she told me, again specifying her reasons, *"…definitely for the better because you're not having to do so much heavy man handling the hoist are doing it for you*". Yet she does not refer to the AT system, only to equipment which does the *"heavy manhandling".* |

In

this

next **Transcript WL S SO01 Sarah Selection (TS3)** Sarah uses specificity to appear to answer my question but her use of footing (*"we"*) shows how this covers over the fact that she herself was not actually using the AT. She offers a more expansive description of equipment in practical instrumental terms, not directly answering my questions about AT but providing specificity (DD7) which actually takes the focus away from her own use of AT.

**Table 5.16 DDs & claims formulations in Transcript WL S SO01 Sarah Selection 3**

| ***WL S Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **DD Definition/ formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 1 (LL562 599) | S In this dementia unit and with the clients that we've got<br>M Yeh<br>S At the moment<br>M Yeh<br>S Very very few actually pull them<br>M Right<br>S Unless they've pulled them by mistake<br>M Yeh<br>S Because we're constantly in the lounge with them they see this uniform, they know we're | DD31 Limiting | Imposes a version of events, often to generalise strength of point. | Residents/ AT | I asked Sarah about how useful the residents found the AT. She had to limit her account of its usefulness since she admitted that *"very, very few actually pull them"* i.e. the residents in her dementia unit used AT equipment only in a symbolic, not practical way. |

| ***WL S Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **DD Definition/ formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | there to help them<br>M Yeh<br>S So they either say help or I need to go, and we take them<br>M Yeh<br>S You know but I've never had Margaret's buzzer pressed<br>M No<br>S But and I think it's her comfort<br>M Of course<br>S That's she says every morning I need MY alarm on<br>M Yeh<br>S But she never presses it but who's to say one day she might | DD7 Specificity<br>DD2 Extreme Case Formulat-ion ECF<br>DD2 Extreme Case Formulat-ion ECF | Provides specific, detailed examples (e.g. times, statistics) to emphasise the 'truth' of something. e.g. Just under 7% now unemploy-ed.<br>Often justifies or imposes a version of events. Often general-ises the extent/ strength of something. | Self/ Home Staff<br>Resident / AT<br>Resident / AT | She backs this up by providing a specific example of a resident in her dementia unit who uses a buzzer for symbolic comfort, not functionally.<br>She uses an ECF (DD2) to emphasise that she *has "never had Margaret's buzzer pressed"* (L587)<br>She indirectly quotes Margaret, herself using an ECF to highlight how she needs her (symbolic) *"alarm" "every morning"* (L595), while again using the ECF, *"But she never presses it"* to restate that it is not being used in a functional, practical way. |

After working in the home for over 10 years in the same role, Sarah identifies particular changes she has seen; some she says for the good, again specifying (DD7) her reasons. However, she does not detail the AT system, only details about everyday equipment which has a practical use and which affects her practical physical care role.

When I ask more directly about whether she knew what sorts of AT equipment was being used, Sarah then answers with a question, *“In the dementia unit?”* (L496) even though at the time we were sitting in the dementia unit to conduct the interview. She provides more specificity (DD7) here: *“We have pull cords in the bathrooms, in the toilets, there there's always like if they…”*. However, her use of the term *“we”* as a footing (DD14) for this statement is later seen as a way to avoid identifying exactly who is and who is not using AT.

When I ask Sarah about how useful the residents found the AT, she has to limit (DD31) her account of its usefulness since she admitted that “*very, very few actually pull them”* (L570). The residents in her dementia unit used AT equipment in a symbolic, rather than practical way. Instead, she sets out a specific (DD7) example of a resident who uses a buzzer for symbolic comfort, not in a functional way. She uses an ECF (DD2) to emphasise that she has *“never had Margaret’s buzzer pressed”* (L587). She quotes Margaret herself using an ECF to highlight how she needs her (symbolic) *“alarm” “every morning”* (L595), while again using the ECF herself *“But she never presses it”* to restate how it is not being used in a functional, practical way.

In her final **Transcript WL S SO01 Sarah Selection 4**, Sarah seems to want to show how the AT equipment was more useful for dealing with emergencies but had to admit that she did not have direct experience of this.

**Table 5.17 DDs & claims formulations in Transcript WL S SO01 Sarah Selection 4**

| ***WL S Selctn4/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1 (LL1072-1123) | M Yeh do you think there has been any time when the equipment’s made a difference to a resident being at risk or coming to any harm or injury?<br>S I think like the personal alarms<br>M Yeh<br>S That people have got them on their arms or on their round their<br>M The pendants?<br>S Yeh the pendants<br>M Yeh<br>S I think that has helped a lot because I mean | DD5 Contrasts | Emphasises difference and gaps between two things. May contrast people (individuals/groups) or situations/events (then vs. now). | Self/ staff / AT equipment | When I tried to find out if the AT equipment had made a specific difference to a resident being at risk or coming to harm, Sarah attempted to specify how useful the AT equipment was because it made a contrast with the previous equipment. |
| | if they’ve actually had a | DD30 Distancing | Remoteness in positioning | Self/ AT | I asked Sarah to be precise about when |

| ***WL S Selctn4/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | fall, I mean they could press that, but they couldn't pull a cord that was on a wall, could they? | | from problematic interests to reduce contestation and challenges. | equipment | that last happened and she explicitly distanced her own dementia unit from this: *"have to talk to someone actually the other side"*, or herself from direct experience of AT. |
| | M Because they're on the floor perhaps? | DD35 Boundary marking | Marking one or more boundaries between groups or spaces to include or exclude, to define as "belonging" or other | Self /Staff / Residents / AT | Sarah justifies this by drawing boundaries between different areas, as she works in a *"specialised unit"* (the dementia unit), which distances her from using the AT in her current work. |
| | S Because they're on the floor. So that would get us to them a lot quicker than if we perhaps just walked past their bedroom and saw them you know they could | DD23 Justification<br>DD35 Boundary marking | To accept responsibility for act but denying pejorative quality. | Self/ Work / AT | AT is used very differently there, and people who use it themselves are *"on the other side".* So she offers advice to me, *"you might have to talk to someone actually on the other side as well".* |
| | M Yeh you could | | | | |
| | S But that is that is | | | | |
| | S Quicker | | | | |
| | M Yeh | | | | |
| | S We can get there a lot more quicker | | | | |
| | M And can you remember the last time that happened? | | | | |
| | S Not down here no, we are in a specialised unit | | | | |
| | M Of course | | | | |

| ***WL S Selctn4/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD definition/ Formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | S Of dementia yeh yeh I think oh I think you might have to talk to someone actually on the other side as well | | | | |

When I try to find out if the AT equipment had made a specific difference to a resident being at risk or coming to harm, she attempts to specify how useful the AT equipment is because it mean *"we can get there a lot more quicker*" (L1110), making a Contrast (DD5) with the previous equipment. However, when I ask her to be more precise about when that had last happened, she then has to Distance (DD30) her own dementia unit from this and at that point says *"you might have to talk to someone actually the other side as well"* (L1122), eventually explicitly distancing herself from being able to offer direct experience of using AT. The final part of this exchange shows Sarah more clearly drawing Boundaries (DD35) between the dementia unit where she worked and where AT is used very differently, and people *"on the other side"*. This also distances her from using the AT in her current work, and means she also Justifies (DD23) her not having used the AT herself.

### *Case summary for Transcript WL S SO01 Sarah*

Despite having qualifications and a wide range of working experiences, both in the dementia unit in the home and previously in hospitals and supermarkets, and having a key worker role, Sarah presents herself as *“having to do”* set tasks, not as having authority. She often takes away the focus from how she might be exercising her considerable experience, and she expands on this when talking about how she sensitively communicates with people using hoists in a reassuring way and using non-verbal cues to do this. When pressed, she makes clearer that she supports the wider use of AT in her home, but in the dementia unit, the particular place where she works, she herself does not actually use the AT equipment provided. To imply her support for using AT, or at least avoid any disagreements in this conversation, she uses echoing (DD34), specificity (DD7), and defining her footing (DD14) as that of animator rather than author of her work. To justify her lack of use of AT in her work on the dementia unit, she uses boundary marking, e.g. *“the other side”* (DD35), and distancing (DD30) to separate her area of work as different and specialised.

### *CHATS interview transcript – Interviewee BH R J02 Jane – analysis*

In this interview, this resident (Jane) frames much of her discussion of her experiences of using AT in terms of her questioning the reliability of the AT system. She uses the interview to talk about AT to present herself as a person who could take responsibility, and was able to give an authoritative, evidenced account, yet also conveying some criticism of the staff or the home while taking steps to distance herself from doing this openly. To do this she uses a wide range of DDs including Scene Settings, Disclaimers, Extreme Case Formulations, Both

Specificity and Vagueness, Blame, Consensus, Collaborations, and Membership Categorisations, particularly relating to memberships of care homes settings.

**Table 5.18 DDs and claims formulations in Transcript BH R J02 Jane Selection 1**

| ***BH R Selctn1/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **Definition/ formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 1 (LL 150-169) | M What do you think of the pendant?<br>J Not much<br>M Not much<br>J No it's all right if the phones are working<br>M Yeh | DD6 Vagueness | Provides flexible means of displaying an effect or (effectors) problem but minimises the possibility of being 'wrong'. As a result, it is also weaker and more prone to stake/interest exposures | AT equipment | Jane avoided a bald statement that AT did not work, but begins with a vague disclaimer *"not much"* and it was only any good *"**if*** [my emphasis] *the phones are working"*, conveying how the AT system could not give her confidence, because it did not work all the time. |
| | J If the phones are out of order, they can't hear you because they're not strong enough<br>M Right<br>J We're too far away from the<br>M The signal | DD5 Contrasts | Usually emphasises difference and gaps between two things. They might contrast people (individuals/groups) or situations/events (then vs. now). | AT system | She included many contrastive devices, referring to what the system might be expected to do but did not do in practice. |
| | J The signal yeh they can hear us say from here to where we were sitting just now, and they can hear from that far but we're out of range | DD7 Specificity | Provides specificexamples (e.g. dates/times, statistics) to emphasise the 'truth' of something, e.g. Just under 7% are now unemployed. | AT system / Home layout | Here Jane specified the signal being *"not strong enough"* to go to a different floor where staff cannot hear them because "*the signals are …out of range".* She uses this again to convey criticism indirectly rather than directly. |

|  |  |  |  |  |  |
|---|---|---|---|---|---|
|  |  |  |  |  |  |

When asked what she thought of the AT system, she avoids a bald statement that AT did not work but begins making a vague disclaimer (DD6) *“not much”* (L152) and that it was only any good “***if*** [my emphasis] *the phones are working”* (L156), conveying how the AT system could not give her confidence, because it did not work all the time. Her account included numerous Contrastive Devices (DD5) by making reference to what the system might be expected to do but did not do in practice. She Specifies (DD7) with examples such as the signal being *“not strong enough”* (L160) to go to a different floor where the staff cannot hear it because *“the signals are …out of range”* (p.3 L168-169). Again, she uses this to convey indirect rather than direct criticisms, giving specific reasons why she was not over-impressed.

The next selection (2) shows Jane relating one of several specific examples of incidents where she described calling on the AT system, setting scenes in which her role was of someone trying to use the system to help other residents, rather than herself, and of the system failing to deliver.

**Table 5.19 DDs and claims formulations in Transcript BH R J02 Jane Selection 2**

| ***BH R Selctn2/*** **Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 1<br>(LL195-216) | M And how often are they not working?<br>J Quite often<br>M Often?<br>J Mm yeh<br>M So that’s | DD31 Limiting | Restricting, restraining the domain of discussion making what is considered logical while excluding other options from consideration. | AT system | When asked how often the AT system was not working, she set out its limits as not working *“Quite often”*, relating specific incidents of calling on the AT system, but it failed to deliver. |
| | J If I pull the pull cord on the wall which is supposed to bring help cos the man next to me said pull the cord cos, I’m in agony he’s had a | DD2 ECF | Often justifies or imposes a version of events. It often generalises the | Other resident / AT system / | She presented these incidents as ECFs of health emergencies, with details showing |

| ***BH R Selctn2/*** **Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | brain operation and he get | | extent/strength of something. | | how extreme they were. |
| | headaches like a hammer hitting you know<br>M Mm | DD5 Contrast | Usually emphasise difference and gaps between two things. | AT System | She contrasted the call system failing to deliver a speedy response when a resident asked her to get help by pulling a cord . |
| | J I wanted to help him, so I pulled it and they didn't come for 25 minutes, and they said it was cos the phones weren't working<br>M Mm | DD7 Specificity | Gives specific, detailed examples (e.g. times) to emphasise the 'truth' of something. | Self / other resident / AT system / staff | Jane detailed wait times (25 mins). |
| | J So I don't know you know you've got to believe them but… | DD25 Hedging | Not taking sides in a cause by expressing caution or uncertainty | Self / Staff | She hedged criticism of staff *"you know you've got to believe them"*. |

When asked how often the AT system was not working, Jane set out its limits (DD31) as it not working *"quite often"* (L197). She gives examples of incidents as Extreme Case Formulations (DD2) of health emergencies, where she provided details to demonstrate how extreme the circumstances were. Her first example she gives (L205) contrasted the lack of a speedy response when a fellow resident, sitting next to her, asked her to summon help by pulling a cord because he was *"in agony"* (L206) but the call system failed to deliver. She characterises his health need with specific details (DD7), as having *“had a history of brain operations”* and headaches with pain *“like a hammer hitting”* (L207). She describes herself pulling the cord and again, used the Contrastive Device of highlighting how it was *“**supposed to*** [my emphasis] *bring help”*, as opposed to what followed, where it did not deliver help quickly. Jane repeatedly uses the device of specifying waiting times to give authority to her accounts of nearly all of her examples of the AT not delivering prompt staff responses to either urgent or personally distressing circumstances. She gives this specificity by stating that they (the residents) waited for 25 minutes, before help came *“cos they said the phones weren’t working”*. However, possible criticism of the staff, as well as the AT, is cloaked by her next hedging (DD25) remark that “*you know you’ve got to believe them*” (L216). She could also be conveying her lack of power to openly challenge the staff but also some lack of faith in the reasons she says they gave for the delay.

She reports another incident where the staff came quickly, again specified as an ECF emergency (DD2), when a resident was choking *“and his eyes went up in his head and his lips went blue”* (L221). She portrays herself as the residents collectively, *“We called them...”* (L235), and in Contrast (DD5) the staff this time came quickly. To emphasise how seriously this incident was taken by staff, she describes how *“two girls came quickly”* (L225) and shows them performing as competent in their expected role (here using a Membership Categorisation Device (MCD) (DD12) to manage this: *“pressed his chest and that and patted his back and got him better”*. Here she also characterises the resident who choked on other occasions, *“twice since then…”* (L235), in some senses presenting him as blameworthy (DD8) as *“he* eat *too much cake at a time… They keep telling him to eat one and then wait but he stuff it all in.*” (L235-236). Again, perhaps she is adding an implied contrast to present herself as portraying a more sensible view through her account of these events. While she characterises the other resident as someone who repeatedly experienced choking incidents, she portrays it as partly his fault: *“he should have learnt his first lesson”* (L247).

This next selection in **Transcript BH R J02 Jane Selection 3** shows Jane reporting another incident when residents used AT to deal with an emergency. This time the staff came quickly, but Jane is again able to present herself as a competent person, this time in Contrast to the resident who was the target of attention.

**Table 5.20 DDs and claims formulations in Transcript BH R J02 Jane Selection 3**

| ***BH R Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD term (ID)** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 1 (LL220 -247) | J I thought well suppose someone has had a heart attack I mean a few weeks ago a man choked himself and his eyes went up in his head and his lips went blue | DD2 ECF | Often justifies or imposes a version of events. It often generalises the extent/ strength of something. | Resident/ Other residents / Self / AT system | She reported another incident she presented as AT having use for her, where it helped the staff come quickly, where a resident was choking *“and his eyes went up in his head and his lips went blue”*. |

| ***BH R Selctn3/* Extract N (line Nos)** | **Extract** | **DD term (ID)** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | M No | | | | |
| | J We called them, and they did come two girls come quickly and they can't give him a whatsit Heineken technique<br>M Oh yeh<br>J They couldn't do that anymore<br>M No | DD5 Contrasts | Usually emphasise difference and gaps between two things. They might contrast people (individuals/groups) or situations/events (then vs. now). | Staff /Residents | In contrast to the earlier incident, the staff this time *"come quickly"*. To emphasise how seriously the incident was taken more widely, Jane described how *"two girls came quickly".* |
| | J So they pressed his chest and that and patted his back I mean and got him better | DD12 MCD Membership Categorisation Device | Position individual people into broader categories to form collections / groups with specific expectations. | Staff / AT system/ Other resident | She showed staff performing as competent in their expected role (here using an MCD to manage this: *"pressed his chest and that and patted his back …and got him better".* |
| | but he's done it twice more since then not quite so bad but he eat too much cake at a time you see he<br>M Yeh<br>J They keep telling him to eat one more then wait and then. He stuff it all in…So | DD8 Blame | Situates blame with a particular group/ person for a particular event/effect. But it sometimes has effects on the speaker; it may elevate | Self / Other resident / Staff | Here Jane characterises the resident who choked as in some senses blameworthy, as *"he eat too much cake at a time… They keep telling him to eat one and then wait… but he stuff it all in.*"<br>Again, it implicitly adds contrast to her own self-presentation as more sensible person. |

| ***BH R Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD term (ID)** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | you could say he should have learnt his first lesson, but he didn't | | the speaker (e.g. brave). | | She framed the other resident as someone who kept experienced choking incidents, shown as partly his fault: *"he should have learnt his first lesson"*. |

This next selection **Transcript BH R J02 Jane Selection 4** shows Jane again cautiously presenting some criticisms of the AT system and conveying how she feels she needs to take care in doing this.

**Table 5.21 DDs & claims formulations in Transcript BH R J02 Jane Selection 4**

| ***BH R Selctn4/*** **Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **Definition/ formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| **Extract** 1 /278-296 | M Once you press it can you tell that signal's going in | | | | Jane presented the AT system as able to do some things, but hedges on whether it is working reliably, repeating several times, that not only the signal but the *"phones are not strong enough… to pick up everywhere… they can do parts but not all of them".* |
| | J if you pull the one on the wall, they can talk to you but even then, if it's not working | DD25 Hedging | Not taking sides in a particular cause, by expressing caution or uncertainty .. | Self/ Staff/ AT system | |
| | M That's no good | | | | |
| | J That's the trouble they say the phones are not strong enough to take the | DD31 Limiting | Restricting, restraining domain of discussion to make what is considered | Self/Staff | She presents the staff as well as herself limiting what the AT system can do, as not |

| ***BH R Selctn4/*** **Extract N (line Nos)** | **Extract** | **DD Term (ID)** | **Definition/ formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | M To pick the signal up<br>J Signal not picking everywhere up, you know they can do parts but not all of them<br>M Yeh | | possible and logical, while excluding other options from being considered | | everywhere in the home. |
| | J But I hope I don't get into trouble for saying that but that every<br>M No not at all. | DD1 Disclaimer | Displays awareness of potential opposition prior to posing the utterance. | Self/ Residents | She also suggests some sense of her own vulnerability as a resident talking about such problems by disclaiming *"I hope I don't get in trouble for saying that"*, which displays her position as not free to critique staff or system. |
| | J Everybody agrees with me | DD9 Consensus/ collaboration | Involves bringing others into the account – usually supporters | Self/ Residents/ Staff | Yet she adds collaborative weight to her individual opinion with *"Everybody agrees with me"*. |

Jane presents the AT system as able to do some things, but hedges (DD25) about whether it works reliably, repeating at several points in her account that not only the signal but the *"phones are not strong enough…to pick up everywhere… they can do parts but not all of them"* (L284-88). She presents the staff, as well as herself, limiting (DD31) what the AT system can do as not everywhere in the home. She also suggests some sense of her own vulnerability as a resident talking about such specific problems by expressing the disclaimer (DD1) to me: *"I hope I don't* *get in trouble for saying that”* (L292). This may characterise her position as not necessarily free to express critical opinions about staff or the system. But she adds collaborative weight (DD9) to her individual opinion by backing it up with *“everybody agrees with me”* (L296)

In this next selection, Jane continues at first to cautiously specify AT limitations, but goes on to share her anxious, fearful and emotional experiences that sometimes resulted from staff and residents using AT.

**Table 5.22 DDs and claims formulations in Transcript BH R J02 Jane Selection 5**

| ***BH R Selctn5/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD Definition/formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1 (LL321-333) | J You can talk to them, and they can talk to you cos it<br>M Yeh<br>J But with this you can just talk to them, but they can’t talk to you<br>M Right<br>J They can hear what you’re saying<br>M With the pendant | DD5 Contrasts<br>DD5 Contrasts | Usually emphasises difference and gaps between two things. May contrast people or situations/ events (then vs. now).<br>Justifies or imposes a version of | Staff/AT/Residents<br>Staff/AT/Residents<br>Staff | Jane adds contrastive example of AT power positioning effects for staff v residents, as staff can *“hear what you are saying”* but residents can’t get staff to respond by talking back to them “**they** [my emphasis] *can hear what you’re saying”.*<br>Describes AT as something residents can use to call staff to come and respond to their needs, but again contrasts this with how they expected AT to be speeding up staff responses.<br>So, she describes their response as limited to |

| ***BH R Selctn5/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD Definition/formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | J Yeh but they **do** come when they can yes | DD31 Limiting | events. It often generalises the extent/strength of something. | | "*when* **they** [my emphasis] *can*". |
| **Extract 2**<br>(LL335-368) | M On average is that | | | | |
| | J About 20 minutes to do a wee<br>M 20 minutes for a wee<br>J Yeh<br>M Mm<br>J Then might wait 25 minutes to be taken off the commode | DD7 Specifying | Provides specific, detailed examples (e.g. dates/times, statistics) to emphasise the 'truth' of something. | Staff/AT | Jane specifies what this means: she regularly experiences the time she is made to *"wait for a wee"* as *"20 minutes"*, and *"wait 25 minutes to be taken off the commode".* |
| | M That's a long time isn't it? | | | | M acknowledges this as *"long time"* to which Jane makes a muted response. |
| | J Mm. I don't know what was at fault with that. See we don't really know what's not working or what isn't but | DD25 Hedging | Not taking sides by expressing caution or uncertainty. | Self/ AT System | Jane then hedges in conveying there is a fault, but saying she doesn't have knowledge of *"what was at fault".* |
| | M Yeh | DD9 Consensus/collaboration | Involves bringing others/ supporters into the account. | Self/ Other Residents/ AT | She brings in other resident collaboration in hedging as *"we don't really know what's not working or what isn't".* |
| | J We'd know if they were good but no, I won't say they're good | DD31 Limiting | Restricts domain of discussion to be considered possible and logical. | Staff/AT | Yet she goes on unprompted by the interviewer to re-state her limiting refusal to judge AT devices as positively |

| ***BH R Selctn5/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **DD Definition/formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | M No well you'd soon know wouldn't you?<br>J Yeh<br>M By using | | | | working when she *"won't say they're good".* |
| | J That's a job to want to go a wee and try and hold it for 20 minutes while you wait for someone to come you keep thinking you're going to wet your knickers and then you're right relieved when they do come (laugh) you call them a little angel and everything else | DD2 ECF Extreme Case Formulation | Justifies or imposes a version of events. It often generalises the extent/strength of something. | Staff/ AT | She finally presents an Extreme Case Formulation, combined with scripting, to convey how delays have routinely led to residents" encountering extreme difficulties: *"That's a job to want to go a wee and try and hold it for 20 minutes"* while waiting *"you keep thinking you're going to wet your knickers".* |
| | | DD29 Scripting | Confirming as routine (As if following a script) Can present the account as normal and expected – and so, acceptable. | | |
| | | DD 36 Claiming | Displays awareness of potential reception(s) (e.g. disbelief) of utterance prior to asserting it, seeking to ensure acceptance or acceptability. | Staff/ Self | She contrasts this fearful situation with her experience of then being *"right relieved when they do come"* and when *"you call them a little angel and everything else"*. She presents calling staff *"little angel"* as a reasonable claim, given her relief after her extreme fear of loss of dignity. |

After some discussion with the researcher about being able to communicate with staff using AT, she adds another Contrastive example (DD5) of AT power positioning effects for staff compared with residents, in that staff can *"hear what* *you're saying"* but that residents can't get staff to respond by talking back to them: "***they*** [my emphasis] *can hear what you're saying"* (L329). She goes on to describe AT as something that residents can use to call staff who will then come and respond to their needs, but again makes Contrasts (DD5) between expectations that AT will bring responses and what staff actually then do, by describing their response as limited (DD31) to "*when* ***they*** [my emphasis] *can*" (L333, see below).

Jane then specifies (DD7) what this means. She regularly experiences the time she is made to *"wait for a wee"* as "20 minutes", and then *"wait 25 to be taken off the commode"* (L345). M acknowledges this as a *"long time"* (actually 45 minutes in total), to which Jane makes a muted response (L343). Jane then hedges (DD25) in conveying there is a fault but saying she doesn't have knowledge of *"what was at fault"* (L353) and brings in other resident collaboration in hedging: *"we don't really know what's not working or what in't"*. Yet she nonetheless goes on, unprompted by the interviewer, to re-state her limiting (DD31) refusal to judge AT devices as positively working when she *"won't say they're good"* (L358). She finally presents an Extreme Case Formulation (DD2), powerfully combined with scripting (DD29), to convey how delays have routinely led to loss of residents' comfort and personal dignity in regularly encountering extreme difficulties: *"That's a job to want to go a wee and try and hold it for 20 minutes"* while waiting, *"you keep thinking you're going to wet your knickers"*. She is sharing her fear of extreme loss of dignity but which she presents as routine here. She contrasts this fearful situation with her experience then of being *"right relieved when they do come"* and when *"you call* *them a little angel and everything else”.* She presents calling the staff *“little angel”* as a reasonable Claim (DD36) because of her relief after conveying her extreme fear of loss of dignity during such incidents.

### *Case summary for Transcript BH RJ02 Jane*

In Jane’s account, she appears to use her discussions about using AT to present herself as a responsible and reliable person, doing this by providing contrastive emergency incidents and characterisations of AT equipment showing AT and the staff using it as not always reliable. She also seems to present herself as perhaps having more competence than some other residents in using AT. She Contrasts expectations that AT as an electronic system will convey security, speedy support and empowerment to residents, as opposed to discourses of experiences of extreme anxiety from the consequences of traumatic health episodes of others and of discomfort and lack of dignity for herself. She would not articulate outright criticisms of the system or the staff, but expressed deference, uncertainty about the reasons for delays, and referred to possible trouble for herself for expressing some opinions. She nonetheless emphatically repeated her resistance to providing any positive evaluation of AT, despite also identifying her own lack of complete power in using it. Her deployment of many DDs helps make clear how much effort she was putting into fully sharing with the interviewer, and how she positioned herself in relation to power dilemmas raised by living in a care home when AT was introduced.

## *CHATS interview transcript – Interviewee HH Mgr S7 Trevor – analysis*

Trevor, the manager of home HH, starts the interview with calm and measured responses, while he relates ongoing problems with the AT system in the home, leaving him with little confidence in the system in use (L166). However, after a short while he expresses great anger about what he reported as the continuing malfunction of the AT systems, while being told they were high quality. He saw this as having serious implications for him, the staff and ultimately for the care and safety of the residents. His sense of the disruption it caused for running the home is made increasingly evident through the interview. Over these extracts, this builds from describing he has *"little confidence"* in the system to later becoming *"horrified*" by the dilemmas he and his staff are facing, disclosing distressing incidents linked to AT, and finally arguing that far from feeling safer with AT, they are *"just waiting for the next phone call"* bringing bad news of incidents.

**Table 5.23 DDs and claims formulations in Transcript HH Mgr S7 Trevor Selection 1**

| ***HH Mgr Selctn1/*** **Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1 (LL166-202) | T Um you interview me at a time where I have very little confidence in the system where we've had ongoing problems<br>M Mm<br>T And recently we had an incident that resulted in a | DD10 Scene setting<br>DD7 Specificity | Narrative device using talk of past, recognisable situations, etc. Puts what follows into context, for specific take on prior narration.<br>Provides detailed | Self / Staff / AT | Trevor set the scene by observing that I had come at a time when he had *"little confidence in the system"*, admitting *"they had ongoing problems"*.<br>He specified further, |

| ***HH Mgr Selctn1/* Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | resident going to hospital because the piece of equipment that was in place to alert staff that this lady was getting out of bed or got out of bed didn't activate and therefore, she fell and is still in hospital<br>M How long ago was that when did this happen roughly | DD26 Stake confess-ion<br>DD8 Blame | examples to emphasis the 'truth' of something.<br>Confesses to having a specific stake, to display honesty.<br>Places blame for a specific event on particular object / person | AT / Staff / resid-ent<br>Self/ staff/ AT<br>T<br>AT | and makes a stake confession (DD26).<br>He specified these (DD7) with details of a recent incident where the AT monitoring *"didn't activate",* when the resident got out of bed and was taken into hospital, placing blame on the AT rather than the staff or himself. |
| | T This happened about a week ago<br>M and what did she have, one of the under the mattress mats?<br>T Bed sensor | DD7 Specificity | Provides specific, examples (e.g. dates/) to stress the 'truth' of something. | AT | |
| | M Bed sensor<br>T Which is designed<br>M Yeh<br>T To when she gets from her bed<br>M Yeh<br>T the sensor is supposed to alert staff on the handsets, and they go directly to wherever that is | DD5 Contrasts | Emphasise difference and gap between two things, e.g. people, states or events. | AT/ Self / Staff | He contrasted (DD5) that the sensor was *"supposed to alert staff on the handsets"* with the AT sensor's lack of alerting. |

| ***HH Mgr Selctn1/* Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | M To that | | | | |
| | T And that didn't happen | | | | |
| | M Mm | | | | |
| | T Which has put myself and some other staff in a very vulnerable and compromising position | DD14 Footing<br>DD2 ECF | Positions self in relation to their story as either author, animator or principal.<br>To justify or impose a version of events, to generalise strength of something. | Self/Staff / AT<br>Staff/AT | Positions himself and other staff in relation to AT,<br>He describes them with an ECF: as a very *"vulnerable and compromising position".* |
| | M Mm | | | | |
| | T I am seething about it<br>M Really<br>T Absolutely seething<br>M Mm | DD17 Authent-icity<br>DD2 ECF | Describing ones beliefs as authentic, based on personal conviction. | Self/ AT | Trevor uses strongly emotional and extreme words like *"absolutely seething"* as an ECF (L210) (DD2), so presenting as authentic (DD17) his strong emotion. |
| | T We've had several meetings<br>M Mm<br>T And which has resulted in me getting another system in place to cover because the system has failed before erratically, but we haven't had any major incident | DD9 Collaboration / consensus | Bringing others into the account, usually supporters. Statement that verifies, constructs factual accounts by citing others | AT/ Staff /resident<br>AT/ Staff | He reported this incident as bringing him and the staff together to deal with it as a collaboration (DD9): *"we've had several meetings"* (L214). He described that a piece of equipment, meant to signal to staff that a resident was getting out of bed, failed to go off. This led to a resident going into hospital. |

| ***HH Mgr Selctn1/*** **Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| EXTRACT 2 (LL205-335) | from those failings<br>M Mm<br>T Um we've had people out to check them on a continual basis, I've had an engineer out now I think they were at the meeting we had like this week 18 times in three weeks now<br>M To look at it because its faulty because it's not | DD24 Corroboration<br>DD7 Specificity | Provides specific, detailed examples to emphasis the 'truth' of something. | Home Staff/ATS Tech<br>Self/ /staff/ AT | He corroborated this (DD24) as a repeated problem of the system having failed before and having the *engineers "out to check them on a continual basis*"<br>Also specifies "18 times in three weeks now" (L218). |
| | T No it's not allowing us to set them because the sensors<br>M Ah yeh<br>T are going off when they shouldn't be | DD30 Distancing | Positions as remote from problematic interests, to reduce contestation and challenges. | Self / Staff/ AT | He distanced (DD30) himself and the staff from blame because "it's not allowing us to set them…. the sensors are going off when they shouldn't be" (LL232-234). |
| | M Yeh<br>T The sensors aren't going off when they ought to and the reason I've asked for another system in place is I don't want another incident like I had so all those<br>M No<br>T beds now | DD35 Boundary marking. | Marking one or more boundaries between categories, groups spaces to include or exclude. | AT/ AT supplier | He used this incident as a boundary marker (DD35) that they did not see the system as acceptable and that he *"asked for another system in place"* (L237) (LL240-1). |

| ***HH Mgr Selctn1/*** **Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | M Mm | | | | |
| | T That we've had bed sensors on in they still are there, but I've got a backup system now so if that fails there's another system in place will alert staff | DD5 Contrast | Usually emphasise difference and gap between two things, e.g. people, states or events | Self/ AT/ Residents<br>Staff/ AT Supplier/ AT<br>AT | He contrasts this (DD5) with the existing system of *"bed sensors in place"* (L249). |
| | M So they have to have two mats now in | | | | |
| | T Yeh one mat in their bed most of them. Under the mattress and one mat on the floor so when they put their feet to the floor on the mat that will alert staff | DD7 Specificity | Provides specific, detailed examples to emphasis the "truth" of something. | AT/ Self<br>AT Supplier/ Other homes | He specifies (DD7) working through bed mats and floor mats and he had to put an alternative system in place as backup and where the staff have *"a different separate pager",* six in all. (L263). |
| | M That alerts them | | | | |
| | T And a different separate pager | | | | |
| | M And how many how many would you have out at the moment? | | | | |
| | T Well six | | | | |
| | M Six mm well that's not very good is it to have no confidence | | | | |
| | T I was absolutely | | | | |
| | M sure | | | | |

| ***HH Mgr Selctn1/*** **Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
|  | T furious, I've had we had a meeting this week<br>M Yeh<br>T And I had the engineers of the company that installed<br>M Mm<br>T They don't maintain it any more, they lost the contract but they I had them here I had the people who currently maintain it and service<br>M Is that that AT<br>T Yeh<br>M Um installation<br>T Yeh<br>M That is | DD2 ECF | Imposes a version of events to generalise extent/ strength of something. | Self/ AT Supplier/ Staff | Again, emphasises how this extreme case (DD2) of system failure made him *"absolutely…furious"* (L275).<br>He then spent considerable time spelling out details to corroborate how he had to call out the people from his own organisation and the equipment suppliers, and that these problems were a system problem, not only within his home**.** |
|  | T I had a guy from *ATS Tech* here<br>M The people themselves<br>T Yeh<br>M That do it<br>T I had my service manager, and I had the manager of our | DD24 Corroboration | Statement that confirms or verifies by speaker citing 'others to shore up their explanation or accounts'. Constructing factual accounts by citing | Home AT system/ Other Home AT systems |  |

| ***HH Mgr Selctn1/* Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 3 LL335-403 | maintenance department here<br>M And you have had this system now the one that you're obviously not very happy with at all for how long? | | independent others | | |
| | T About three years<br>M So this isn't really teething problems is it?<br>T No<br>M You know what I mean<br>T I mean this isn't<br>M It should be<br>T And it's not just here<br>M No | DD7 Specificity | Provides specific, detailed examples (e.g. dates/times, statistics) to emphasise the 'truth' of something. | Staff/ Home AT/ AT Suppliers<br>Staff/ Residents/ Home AT | |
| | T There are problems in lots of other establishments to the point where one establishment<br>M Yeh<br>T has a logbook where they just put, they log the faults of the system in right it's got to a point now that they're not | DD24 Corroboration | Statement that confirms or verifies by speaker citing 'others to shore up their explanation or accounts'. Constructing factual accounts by citing | AT Supplier/ Home AT | He further corroborated, citing "lots of other establishments" which had had similar problems "to the point where one establishment…has a logbook where they just … log the faults of the system". |

| ***HH Mgr Selctn1/* Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | even phoning every time they just log that certain pieces of kit aren't working or this is the issues are that put it like this here<br>M Yeh | | independent others | | |
| | T After we the meeting we had ATS back in to check things like these voice boxes<br>M Voice boxes in the room | DD7 Specificity | Provides specific, detailed examples to emphasis the 'truth' of something | Self/ Staff/ AT/ Supplier | Trevor then specified (DD7) the many actions he and staff took after the crisis meeting, to get *"ATS" (suppliers)*<br>"back in to check things like these voice boxes…" He contrasted acceptable working with what actually happened "because in several we could speak to the resident but couldn't hear a word back from them" (L339). |
| | T Because in several we could speak to the resident, but we couldn't hear a word back from the resident<br>M Yeh<br>T We had calls that wouldn't register at all the North Rehab Unit which is my rehab unit<br>M Yeh | DD5 Contrasts | Usually emphasise difference and gaps between two things. May contrast people or situations/ events. | Staff/ AT | |
| Extract 3 (LL335-404) | T Um sometimes the handsets would pick up calls sometimes they wouldn't because of the reception so they came out and did all this cleared all | DD7 Specifying | Provides specific, detailed examples to emphasis the 'truth' of something | Staff/ Home AT/ AT Supplier/ Home building | Other call outs for faults were often on setting the bed sensors.<br>He also specified (DD7) an event demonstrating the system repeatedly breaking down: |

| ***HH Mgr Selctn1/* Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | this sorted all this out and then at half past one Wed Thursday morning I had a phone call from a night staff to say that all the alarms were going off as a fault cross the all across the building there was a fault….because the reception was intermittent” | | | | phone calls to him in the early hours and alarms going off through the building, through the night with staff unable to *“park”* it, *“phone calls to say all alarms were going …across all the building”* (L348) and staff handsets not picking up calls *“as reception was intermittent”* (L349). |
| | M Oh my | | | | |
| | T And what should they do | | | Self/ AT Supplier | |
| | M Cos if they wouldn’t know what to do | | | | |
| | T Because they wouldn’t it’s not, they know how to use the handsets and they know now<br>M Yeh<br>T What bed sensors obviously are and how they work<br>M Yeh | DD35 Boundary marking | Marking one or more boundaries between categories, groups, spaces, to include or exclude, to define as ‘belonging’ or ‘other’. | Home staff/ AT supplier | He then used this to boundary mark (DD35) what the staff did **and did** not know how to do (L355), such as confidently using the handset or how to programme the bed sensors. |
| | T And several of them know how to programme them but when it comes to faults on the system or when it comes to | DD7 Specifying | Provides specific, detailed examples, (e.g. dates/times, | Home staff/ AT supplier | Compare**d** with where the system was not working: “one of the addresses it was that they’d parked because…that |

| ***HH Mgr Selctn1/* Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | setting timer or whatever and I'm told ATS came out and I am told that one of the addresses they'd parked because it's it doesn't affect that that address doesn't affect residents, it's actually a flat that used to be a staff flat | | statistics) to emphasise the 'truth' of something. | | address doesn't affect residents it's actually a flat that used to be a staff flat" (LL374-75) |
| | M This is on site | | | | |
| | T Yeh | | | | |
| | M Yeh | | | | |
| | T Um they parked it | DD8 Blame | Situates blame with a particular group / person for a particular event / effect. | AT Supplier**/ Home AT** | He placed blame (DD8) squarely with the supplier: *"They parked it"* (L383). But he also reported the company as trying to place blame with his home's staff, as his staff had unparked it, Trevor denied (DD32) it as *"…absolutely garbage, they wouldn't know how to unpark it let alone anything else"* (LL387-8). |
| | M Mm | | | | |
| | T Because there was a fault on that and what he said to me was well the night staff must have unparked it which is absolutely garbage they wouldn't know how to unpark it let along anything else | DD32 Denial | Refusal or to accept usual negative self-attributes often before expressing negative views v others. | AT Supplier**/ Home AT** | |
| | M So its I Its I mean obviously that's causing huge anxiety not only when you you've got a system there and you think it should be working | | Positions self in relation to | | |

| ***HH Mgr Selctn1/*** **Extract N (line Nos)** | **Extract** | **DD term** | **Definition/formulation of claim** | **DD Target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | T Well they tell us<br>M Then<br>T There’s this marvellous system as well Monica this is top of the range<br>M Yeh<br>T All dancing all singing | **D**D14 Footing<br>DD2 ECF<br>DD5 Contrast<br>DD33 Metaphor | what we say, as originator, deliverer, receiver.<br>Imposes a version of events to generalise strength of some thing<br>**Stresses** gaps between two things to contrast situations<br>**I**mage to create an impact in minds of others. | AT Supplier**/ Home AT**<br>AT Supplier**/ Home AT** | He emphasised the different footing (DD14) between the staff and the company *“they tell us…”*<br>“…there’s this marvellous system as well, Monica, this is top of the range” (LL394)<br>and made an ECF (DD2) **which** contrast**s** (DD5) **with** the company’s image of an *“all dancing, all singing”* (DD33), rather than the broken system he described earlier. |

Trevor set the Scene (DD10) by observing that I had come at a time when he had *“little confidence in the system* (L166) and where *“they had ongoing problems”*, which he shared with me as a Stake Confession (DD26). He specified these (DD7) with details of a recent incident where the AT monitoring *“didn’t activate”* as it should have when the resident got out of bed, and so the resident had been taken into hospital. He was clearly placing Blame (DD8) on the AT rather than the staff or himself. He Contrasted (DD5) that the sensor was *“supposed to alert staff on the handsets”* (L193), but that this did not happen (L198). He presented this as placing himself and the staff on a shared footing (DD14), where they were now in an extreme case (DD2) of having a very *“vulnerable and compromising position”* (L202).

**Start of transcript HH Mgr S7 Trevor Selection 1 Extract 2**

Just a short time into the interview, Trevor is using words like *“absolutely seething”* as an ECF (L210) (DD2), which presented as Authentic (DD17) his strong emotion. He describes an incident where a piece of equipment meant to signal to staff that a resident was getting out of bed had failed to go off. This resulted in the resident going into hospital, not long before the interview. He remarks that this failure put himself and staff in vulnerable and compromising positions. (L202), which he reported as bringing him and the staff together to deal with it as a Collaboration (DD9): *“we had several meetings”* (L214). He Corroborated this (DD24) as a repeated problem, the system having failed before and having the engineers *“out to check them on a continual basis, 18 times in three weeks now”* (L218). He Distanced (DD3) himself and the staff from blame because *“it’s not allowing us to set them…. the sensors are going off when they shouldn’t be.”* (LL232-234). He used this incident as a boundary marker (DD35) that they did not see the system as acceptable and that he had *“asked for another system in place”* (L237) (LL240-1). He Contrasts this (DD5) with the existing system of *“bed sensors in place”* (L249), which he Specifies (DD7) as working through bed mats and floor mats, and he had to put an alternative system in place as backup where the staff have *“a* *different separate pager"*, six in all (L263). He again emphasises how this extreme case (DD2) of system failure made him *"absolutely…furious"* (L275). He then spent considerable time spelling out details to corroborate how he had to call out the people from his own organisation and the equipment suppliers, and that these problems were a system problem, not only within his home, citing *"lots of other establishments"* which had had similar problems *"to the point where one establishment… has a logbook where they just … log the faults of the system"*.

**Start of Transcript HH Mgr S7 Trevor Selection 1 Extract 3**

Trevor then specifies (DD7) the many actions he and staff took after the crisis meeting, to get "ATS" suppliers *"back in to check things like these voice boxes…because in several we could speak to the residents but couldn't hear a word back from them"* (L339). Other call outs for faults were often about setting the bed sensors. He also specifies (DD7) a catalogue of events demonstrating the system repeatedly breaking down: phone calls to him in the early hours and alarms going off throughout the building in the middle of the night, with staff unable to *"park"* it. Then after the company had *"sorted all this out then at half past one Wednesday, Thursday morning I had a phone call from a night staff member to say that all the alarms were going as a fault… across all the building"* (L348). He described the handsets that staff carry as sometimes working and sometimes not picking up calls *"because of the reception"* (L349) "*being intermittent"* (L348). He reported getting calls in the middle of the night reporting faults. He then used this to boundary mark (DD35) what the staff did not know how to do (L355), such as confidently using the handset or how to programme the bed sensors, as compared with where the system was not working with *"one of the addresses, 500 it was, that they'd parked"* (LL374-75). He places blame (DD8) squarely with the supplier: *"They parked it"* (L383), but also reports the company was trying to place blame instead with his home's staff. Where the company said his staff had unparked it, Trevor denies this (DD32) as *"…absolutely garbage, they wouldn't know how to unpark it let alone anything else"* (LL387-8).

He emphasises the different footing (DD14) between the staff and the company: *"**they tell us*** [my emphasis] *… there's this marvellous system as well, Monica, this is top of the range"* (LL394) and made an ECF (DD2) Contrast (DD5) that the company claimed it was *"all dancing, all singing"* (L402), rather than the broken system he was describing earlier. Therefore, this was not what he had been led to expect.

### Transcript HH Mgr S7 Trevor SELECTION 2

Trevor explains he would now have to go to what he says will be *"a very uncomfortable meeting for him with social workers, safeguard practitioners"* to explain the incident (L416).

**Table 5.24 DDs and claims formulations in Transcript HH Mgr S7 Trevor Selection 2**

| ***HH Mgr Selctn2/*** **Extract N (line Nos)** | **Extract** | **DD Term** | **Definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| 1<br>(LL484-504) | T There should have been training put in initially when it came in<br>M Yeh | DD8 Blame | Situates blame with a particular group / person for a particular effect. | Self/ AT company | Trevor started by blaming (DD8) some problems on the lack of initial training the staff had previously had *"there should have been training put in initially when it came in"* (L484)<br>He distances (DD30) himself from blame because he had arrived later *"obviously I wasn't here"* (L488).<br>He contrasted (DD5) his previous "impression that they had had training" Trevor found this specifically (DD7) much less than he had thought a few months later "*that 90% of staff were only shown how to use the handset"* (L492).<br>He contrasted his initial expectation of staff having had training for competence with the situation where *"someone down from the AT company to show how to set… she didn't do it either".* |
| | T And obviously I wasn't here when it came in<br>M No | DD 30 Distancing | Remoteness in positioning from problematic interests to reduce contestation. | Self/ Staff co-worker | |
| | T And you know I was under the impression that the staff had training to use the system it transpires, and I found out over the last sort of few months that the major 90% of the staff were only shown how to use handsets how to<br>M Answer your call and speak yeh | DD5 Contrast | Emphasise gap between two things e.g. people, states, or events. | Self/ Staff co-worker<br>Self/ Staff co-worker | |
| | | DD7 Specificity | Provides specific, detailed examples (e.g.statistics) to emphasise the "truth" of something. | AT Training | |
| | | DD 31 Limiting | | Self/ Staff co-worker | |
| | T They weren't shown how to set stuff, so it had been with us a few months after I started here. We had | DD5 Contrast | Emphasises difference and gap between two things, e.g. events. | | |
| | | DD 31 Limiting | Restricts domain of discussion to set what is | AT Training | He confirmed the inadequacy of the training provided by the company by flatly defining it as |

| *HH Mgr Selctn2/* **Extract N (line Nos)** | **Extract** | **DD Term** | **Definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | someone down from ATS to show us how to set it …I mean she didn't do it either and it was just a farce really | | considered possible while excluding other options from being considered. | | limiting (DD31) to *"just a farce really"* (LL504). |

On a recent call out he described how *"the ATS engineer couldn't set them easily himself and eventually had to phone the company for guidance*" (L462) but questioned the *"competency of the staff that use and set the equipment"* (L457). In transcript Selection 2, Trevor makes the case that while there should have been initial training for the home staff, he found this to be very superficial.

Trevor started by blaming (DD8) some problems on the lack of initial training the staff had previously had, *"there should have been training put in initially when it came in"* (L484) and distancing (DD30) himself from blame because he had arrived later, *"obviously I wasn't here"* (L488). He contrasted (DD5) his previous *"impression they had had training"*, but found out this was specifically (DD7) much less than he had thought a *"few months later that 90% of staff were only shown how to use the handset"* (L492). He confirmed the inadequacy of the training provided by the company by contrasting his initial expectation of staff having had training for competence with the situation where *"someone down from "ATS" to* *show how to set…. she didn't do it either"*. So, he could flatly define it as limiting (DD31) *"just a farce really"* (LL504).

**In transcript HH Mgr S7 Trevor Selection 3** Trevor discusses how the home is meant to be a safe place and people expect that residents will be protected from risks, so that an AT system should help better alert the staff to prevent risks.

**Table 5.25 DDs & claims formulations in Transcript HH Mgr S7 Trevor Selection 3**

| ***HH Mgr Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD term** | **Definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1<br>LL668-729 | T Half the stuff hasn't been working so this thing about talking to residents and stuff yeh great if it worked brilliant<br>M Mm mm<br>T But it's it's you got to you know it's very very colourful very flowery got all the bells on it but if it doesn't keep people safe I would have a you know basic system<br>M Yeh<br>T That I know I can rely on<br>M Yeh<br>T To keep people | DD5 Contrast<br>DD33 Metaphor<br>DD29 Scripting | Usually emphasise difference and gap between two things, e.g. people, states, or events.<br>Image meant to create an image in the minds of hearers, with more forceful impact.<br>Opposite to ECF, confirming as routine (as if following a script). Can present the account as | AT<br>AT<br>Self/ Staff co-worker | Trevor draws a contrast (DD5) between *"the stuff hasn't been working"* but how life could be if AT did work, it would be *"brilliant"* (L669).<br>He highlights this with a metaphor for claims made for AT "very colourful, very flowery, got all the bells, but if it doesn't keep people safe" he would have "a basic system".<br>He then scripts (DD29) what people normally expect the home to do as a basic system *"want mum or dad to be safe"*, *"have 24-hour care"* and while accepting people will have falls, staff would *"try to get* |

| ***HH Mgr Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD term** | **Definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | M Mm<br>T You know people come here because they may be at risk in their own home out in the community<br>M Sure<br>T They come here and their families look for care because they want mum or dad to be safe<br>M Yeh<br>T To have 24 hour care yeh and they may it maybe that they do fall anyway people will fall | | normal and expected – so, acceptable. | | *to that person before they fall”* (L696). |
| | M Well yeh<br>T At least staff are alerted<br>M Yeh<br>T That’s the idea<br>M Yeh<br>T Alerted that they’re out of bed and they try to get to that person perhaps before they fall<br>M Yeh<br>T Um but if the kit’s not working If you come back and ask me in 12 | DD5 Contrast | Emphasise difference and gap between two things, e.g. people states, or events. | Self/ Staff/ Co-worker/ resid-ents/ AT kit | But he baldly states the contrasting case “but if the kit’s not working”… “that’s the way it is”. |

| ***HH Mgr Selctn3/*** **Extract N (line Nos)** | **Extract** | **DD term** | **Definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | months' time and<br>M Yeh<br>T I've allowed for the other system that's covering the ATS system at the moment to go and it's all working hunky dory then obviously I'll be speaking differently<br>M Mm<br>T But at the moment it's the way it is | | | | |

## Transcript HH Mgr S7 Trevor Selection 3

Trevor draws a Contrast (DD5) between "the stuff hasn't been working" but how life could be if AT did work, it would be *"brilliant"* (L669). He highlights this with a metaphor for claims made for AT: "*very colourful, very flowery, got all the bells, but if it doesn't keep people safe"* he would have *"a basic system"*. He then Scripts (DD29) what people normally expect the home to do: *"want mum or dad to be safe"*, *"have 24-hour care"* and while accepting people will have falls, staff would *"try to get to that person before they fall"* (L696). But he baldly states the contrasting case: *"but if the kit's not working…".*

## Transcript HH Mgr S7 Trevor Selection 4

In Selection 4, Trevor spells out in detail the contrast between the level of safety needed by the most vulnerable people being cared for and the expense of the new system, which may not be to providing this level of care.

**Table 5.26 DDs and claims formulations in Transcript HH Mgr S7 Trevor Selection 4**

| ***HH Mgr Selctn4/* Extract N (line Nos)** | **Extract** | **DD term (ID)** | **DD Definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1 (LL829-873) | T And these are the most vulnerable people in our society<br>M Mm<br>T The elderly are the most disenfranchised vulnerable frail people<br>M Yeh<br>T Maybe have some real serious physical and cognitive problem are we failing them yes, they may well fall anyway, and I understand that totally<br>M Mm<br>T You know a lot of people who haven't got a system in place that with alert | DD2 ECF<br>DD38 Assessment/ 2nd Assessment<br>DD11 3-part list<br>DD38 2nd Assessment<br>DD5 Contrast | Justifies a version of events. Often to imply the strength of something. Places a value, upgraded If a 2nd assessment agreed, downplayed if disagreed.<br>Usually emphasises the extent or variability of something in terms of threes to emphasise the extent of something more broadly in a class of things. Usually emphasise difference and gaps | Residents/ AT<br>Residents<br>Residents<br>Residents | Trevor emphasises the vulnerability of his home's residents as an ECF (DD2) *"the most vulnerable people in our society"* (L829)<br>And a second assessment (DD38) "the most disenfranchised, vulnerable, frail people" (L834) then a three-part list of "disenfranchised vulnerable frail" people and another second assessment (DD38).<br>He contrasts (DD5) people "who haven't got a system in place" with their own situation where "we pay x amount of thousands of pounds for service". He goes on to highlight this as an ECF: "it wouldn't be cheap". |

| ***HH Mgr Selctn4/*** **Extract N (line Nos**) | **Extract** | **DD term (ID)** | **DD Definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
|  | people that get out of bed whatever, but we pay x amount of thousands of pounds for service<br>M For that yeh oh of course and whatever these costs I haven’t got a clue the system | DD2 ECF | between two things, might contrast people or things. | Home staff / AT |  |
|  | T Well I say x amount of thousands of pounds it wouldn’t be cheap would it<br>M No it can’t be can it<br>T And then there’s you know pendants are 40 quid each uh<br>M The pendants that the resident has<br>T Yeh yeh<br>M 40 quid each | DD7 Specificity | Provides specific, detailed examples, (e.g. dates/times, statistics) to emphasise the ‘truth’ of something. | AT | He goes on to specify (DD7) the costs in detail “pendants 40 quid each”, “bed sensors the actual mat itself is 60… and the control box is another 80” and then the handsets “somewhere in the region of 250 quid”. |
|  | T The bed sensors the actual mat itself is 60 I think it is and the control box is another 80 the phones, the | D6 Vague-ness | Provides a flexible means of displaying an effect or problem but | AT | He uses vagueness to avoid saying absolutely that it could not work*: “I’m sure if it worked”*, perhaps implying it could be bolted on. |

| *HH Mgr Selctn4/* Extract N (line Nos) | Extract | DD term (ID) | DD Definition/ formulation of claim | DD target | Implications for managing positioning / competence |
|---|---|---|---|---|---|
| | handsets that we use for the system are somewhere in the region of 250 quid a piece and then you have to pay to have them programmed on top of that<br>M This is a lot of money isn't it yeh well I think a lot of the other questions<br>T (laugh)<br>M I just got made redundant (laughter)<br>T I'm sure if it worked then maybe | | minimises the possibility of being wrong. | | |

Trevor emphasises the vulnerability of his home's residents as an ECF (DD2), *"the most vulnerable people in our society"* (L829), and a second assessment (DD38) *"the most disenfranchised, vulnerable, frail people"* (L834), and then a Three-Part List (DD11) and another Second Assessment (DD38). He Contrasts (DD5) people *"who haven't got a system in place"* with their own situation where *"we pay x amount of thousands of pounds for service"* and goes on to highlight this as an ECF: *"it wouldn't be cheap"*. He Specifies (DD7) the costs in detail: *"pendants 40* *quid each”*, *“bed sensors the actual mat itself is 60… and the control box is another 80”* and then the *handsets “somewhere in the region of 250 quid”*. He uses Vagueness (DD6) to avoid saying absolutely that it could not work, *“I’m sure if it worked…”* and could be perhaps implying it could be added in.

In transcript **HH Mgr S7 Trevor** Selection 5, Trevor begins to paint what is happening, conveying more desperation, as *“a worst-case scenario”*.

**Table 5.27 DDs and claims formulations in Transcript HH Mgr S7 Trevor Selection 5**

| ***HH Mgr Selctn5/*** **Extract N (line Nos)** | **Extract** | **DD term** | **DD definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| Extract 1 **(LL**934-970**)** | T You think of the worst possible case scenario<br>M Mm<br>T I’m not saying this is going to happen to this lady because it’s probably not but the worst-case scenario is<br>M Mm | DD2 Extreme Case Formulation (ECF) | Often justifies or imposes a version of events. It often generalises the extent/strength of something. | Residents/ AT | Trevor begins to highlight an even more extreme case (DD2) *“worst possible case scenario”* that could follow the recent incident. |
| | T Somebody gets out of bed, the equipment doesn’t work they die<br>M Mm and when you when they are physical and mentally like you say in that state if you | DD 7 Specificity | Provides specific, detailed examples (e.g. dates/times, statistics) to emphasise the ‘truth’ of something. | Residents/ AT | He then specifies (DD7) where the equipment *“doesn’t work and they die”* and that with a population where *“the average age is 91”…..* |

| ***HH Mgr Selctn5/*** **Extract N (line Nos)** | **Extract** | **DD term** | **DD definition/ formulation of claim** | **DD target** | **Implications for managing positioning / competence** |
|---|---|---|---|---|---|
| | like it can easily happen | | | | |
| | T Oh yeh sure | | | | |
| | M I know what I mean because you're on a knife edge | | | | |
| | T You know we've got people the average age here is 91 we've got some really frail quite old people | | | | |
| | M Yeh | | | | |
| | T And you know it's not as if they need to have a brain injury or you know you've got some frail people here that you know maybe if someone fractured their hip | DD2 ECF | Often justifies or imposes a version of events, generalises the extent/ of something | Residents | and that they do not *"need to have a brain injury"* but could find *"someone fractured their hip* |
| | M Yeh that's it | | | | He works this into another ECF "and two days later they get pneumonia and they're dead". |
| | T And two days later they get pneumonia and they're dead or | DD2 ECF<br>DD5 Contrasts | Emphasises difference and gaps between two things, to contrast people or things. | Residents<br>Manager/ Staff/ Residents | He then emphasises how extraordinary the responsibility is for him by contrasting with people living outside the home: *"it's a little bit different for me and you".* |
| | M Yeh that's it | | | | |
| | T It's a bit it's a little bit different for me and you | | | | |

Trevor begins to highlight an even more extreme case (DD2) *"worst possible case scenario"* that could follow the recent incident. He then specifies (DD7) where the equipment *"doesn't work and they die"* and that with a population where *"the average age is 91"* they do not *"need to have a brain injury"* but could find *"someone fractured their hip"*, and works this into another ECF *"and two days later they get pneumonia and they're dead".* He then emphasises how extraordinary the responsibility is for him by contrasting it with people living outside the home: *"it's a little bit different to me and you".*

### Transcript HH Mgr S7 Trevor Selection 6

Trevor sets a boundary for what has been happening with the AT system that was outside the level of safety people expect from the home (see Table 5.28).

**Table 5.28 DDs and claims formulations in Transcript HH Mgr S7 Trevor Selection 6**

| ***HH Mgr Selctn6/*** **Extract N (line Nos)** | Extract | DD term (ID) | DD Definition/ formulation of claim | DD Target | Implications for managing positioning / competence |
|---|---|---|---|---|---|
| Extract 1 (**LL**1075-111**)** | T If you can't provide a safe environment and you're worried about that all the time you're trying to manage that all the time you've there's no there's no room | DD35 Boundary marking. | Marking one or more boundaries between categories, groups, spaces, to include or exclude, to define as | Self/ AT/ Home / Residents | Trevor marks a boundary of acceptable safety if he finds he "can't provide a safe environment and you're worried about that all the time…" |

| ***HH Mgr Selctn6/* Extract N (line Nos)** | Extract | DD term (ID) | DD Definition/ formulation of claim | DD Target | Implications for managing positioning / competence |
|---|---|---|---|---|---|
|  | M No<br>T You can't start thinking about rights<br>M No |  | belonging or 'other'. |  |  |
|  | T You know this is where we're going to progress this is, you know, the best practice I want to introduce for people with dementia because if I can't keep them safe<br>M They've no faith in it<br>T Well I think anybody even if you didn't work in care you'd expect, and you wouldn't know<br>M Mm<br>T The kind of outcomes that are expected from you could kind of say well actually your mum can go into and has to go into a care home but at least she'll be safe | DD 31 Limiting | Restricts the domain of discussion making what can be seen possible, while excluding other options from consideration. | Self/ Residents/ AT/ Home<br>Home/ Residents/ Staff | but here he actually wants "to progress … the best practice, I want to introduce for people with dementia" but feels limited where he can't "keep them safe".<br>He then sets the limits for what "outcomes that are expected from care" where "your mum can go into a care home but at least she'll be safe…" |
|  | M Mm<br>T Fed you know people stay fed |  | Emphasises the extent or of something in | Staff/ Home/ Residents | …which he underlines emphatically with a four-part list *"fed,* |

| ***HH Mgr Selctn6/* Extract N (line Nos)** | Extract | DD term (ID) | DD Definition/ formulation of claim | DD Target | Implications for managing positioning / competence |
|---|---|---|---|---|---|
| | watered warm and safe<br>M Mm<br>T You know we do what we can to make sure that happens but at the moment I dread it I know I'm going to get phone calls | DD11 3-(4-here) part list<br>DD5 Contrast | terms of (here) fours ('I do x, y and z') to repeat an underlying idea.<br>Usually emphasises difference and gaps between two things, to contrast people or things. | Home/ Staff/ Residents | *watered, warm and safe".*<br>This makes his final contrast with the actual situation for him and his staff even greater *"at the moment I dread it, I know I'm going to get the phone calls."* |

He sets a boundary (DD35) if he finds he *"can't provide a safe environment and you're worried about that all the time",* where he actually wants *"to progress … the best practice, I want to introduce for people with dementia"* but where he can't *"keep them safe"*. He then sets the limits (DD31) for what *"outcomes that are expected from care"* where *"your mum can go into a care home but at least she'll be safe"*, which he underlines emphatically with a four-part list (DD11) *"fed, watered, warm and safe",* making his final contrast with the actual situation for him and his staff even greater: *"at the moment I dread it, I know I'm going to get the phone calls."*

Again, we see a staff member using similar DDs to provide a similar case, setting up Extreme Case Formulations (DD2), making this 'more real' by Specifying (DD7) and making Contrasts (DD5) with what they would have seen as acceptable and safe care, but also Denying (DD32) Blame (DD8), which he places squarely outside the Boundary Marked (DD35) responsibility of himself and his staff. He also makes many efforts to convey his emotions as Authentic (DD17) arising from the extreme dilemma he finds himself facing, frequently using contrasting Metaphors (DD33) to do this.

### *Case summary for Interviewee HH Mgr S7 Trevor*

Here, Trevor the manager is making the case that, rather than AT systems and equipment helping him and his staff to provide a care system, his experience was that instead he was trying to manage situations created by AT equipment not working and also that the AT suppliers were not providing enough preparation for staff or backup when incidents arose. This contrasted with his wish to create a safe environment, both for residents and for him and his staff to feel they can work safely in. The whole of his account sets up contrasts between what he sees as reliably and predictably safe care as opposed to the sense of pending threat and vulnerability of both residents and staff. He presents this threat as having been created by the workings of the whole AT system, which he argues does not just apply in his home because it is reported widely in other homes. Like some other staff in other homes, he presents an overall account as an Extreme Case Formulation (ECF) of how impossible it is to work securely with the AT system as it is.

## 5.6. Summary and conclusions for Phase 2 findings

Applying DDA to the seven transcript selections examined here has revealed in detail the types and issues of positioning constructed in interviewees' accounts underpinning the CHATS study. By applying this method, I have shown how people's accounts used many types of DDs to express resistance to AT-related processes, with distancing and negative evaluation devices seen across most interviews. The accounts also accompanied these with a wide variety of distancing and defending DDs. Interviewees' accounts could be seen to use these to express critical judgements about AT systems and equipment, while defending speakers' own positions as still being competent in performing their roles as good managers, residents, or carers.

Both managers set out positions which presented their homes as orderly and well-run until encountering the disruptions they claimed were caused by the AT. Tina positioned her relationship with staff as routinely communicating so that they pick up even small concerns, and she 'scripts' the ways they do this on a daily basis. She represented her own expectations as having looked forward to having an AT product that worked in practice, emphatically contrasting this with staff reporting their communications with residents actually being blocked rather than facilitated. Her account laid blame on the AT manufacturers for supplying poor information and being unresponsive to the needs of staff. The account of staff member Peter, working in the same home, also presents the AT installers as unresponsive and unsupportive. Trevor, another manager in a different home, makes a very similar case but emphatically asserts that the AT equipment or lack of support from AT manufacturers drastically undermines his and his staff's wish to provide a care system that creates a safe environment for residents and staff, and presents the resulting situations he had to manage as unacceptable. DDs in his account were used to create a sense of impending threat and vulnerability for both residents and staff from the whole AT system, and links this to reports from many other care homes. In most accounts we can see the power of the case being made using Extreme Case Formulation (ECF) to argue the impossibility of working well with the AT system as it is and laying blame well away from managers and staff. In several cases, other DDs are used to infuse the cases with authentic (DD17) and understandable emotions, which frequently arose when encountering extreme dilemmas in trying to accommodate to AT systems.

Other less senior staff made their cases using DDs which present themselves as reasonable and agreeable individuals, expressing empathy and sympathy for people having difficulties with AT, while conveying wholesale negative experiences with AT systems more indirectly. They were less likely to use emotive DDs like ECFs but provide DDs specifically to describe using AT or for commenting on how the system works in practice, rather than how it worked for them. They consistently made the case that staff and residents had very limited understanding of how AT works in the home in general or for themselves in particular. They often used the 'vagueness' DD, which avoided providing specific discussion of how they or other staff successfully used AT equipment. They were less likely to build their case for competence on what they themselves did, but referred to how other staff groups like night staff or residents were dealing with using AT. Where they did pick out a particular group to blame, they were more likely to name outsider groups, such as presenting rehab residents as outsiders, or those with more cognitive ability most actively misusing the call system by pressing pendants for minor issues. They did not present criticisms as personal complaints but used DDs that present the issues as ‘factual’ descriptions of negative features of the system. This gives staff a footing as just a reporter of ‘facts’, rather than the author of opinions, actions or outcomes.

Generally, in this PhD study, the case presented in care staff accounts was to assert that the AT system often did not work, but to sidestep blame by arguing that staff did not get anything like enough support to fully use the AT nor to meet the AT-related responsibilities they may have been given. So, where staff had some role in fixing the system they were more likely to use various Stake Inoculation devices, which might clear them of blame for failing to understand or solve the problems with the system. Again, they often used evidencing DDs to build a case where they asked for specific help from various people and organisations, including commissioners and, often, installers of equipment. Some staff made the case that they lacked essential written information provided in ways that they could better understand. They contrasted this with visits by more technically knowledgeable people who knew how to read ‘official information’, superficially showing them how to work the system and make it look easy, but this did not enable the staff to fully understand and control the equipment. All staff accounts contrasted how little they had been told with the technical expertise of people who were *“doing it every day”*. They emphasised the lack of power of non-technically specialised carers trying to work with very limited time to deliver basic care. Again, they make Extreme Case Formulations to show how little help their other care colleagues received to competently perform any additional specialist AT roles they may have been allocated.

It is notable, however, that staff also made the hedging case that the new AT systems, even with drawbacks, nonetheless worked better than the old system in various ways. Staff made the case for having their competent performance constrained by their lack of power and highlighted this in accounts which frequently provided contrasts between their past experiences and perhaps more senior roles, but now having to work with AT, being faced with having to do set tasks, lacking authority. They avoided open disagreements with AT systems by echoing or distancing to define their own footing as that of animator, rather than author of their own work, and by boundary marking to separate their own area of work as specialised.

Residents who were likely to have least power or voice in the care homes system used different DDs to staff and avoided open criticism of using the AT system. Residents’ accounts used neutralising or limiting conversation about engaging with the interviewer, the staff, the residents and in some cases the AT. They repeatedly used vagueness and impersonality to convey rather than openly state that residents did not get information or were not involved with the new AT system. Some residents used their discussions of using AT to present themselves as more competent and responsible in using it than others. But they also used examples of traumatic health episodes to convey fear and anxiety about how the system might be working and about causing trouble if they expressed some opinions. Their accounts were also emphatic in repeatedly resisting providing much positive evaluation of AT and also to identify their own lack of complete power in using it. They used many DDs to convey their positioning in relation to power dilemmas raised by living in a care home environment where AT had been introduced. Resident discourses, therefore, presented the AT systems as especially disempowering for residents, using direct examples and indirect implications. Their discourses also demonstrated their concerns not to be positioned as simply incompetent in performing everyday life.

The Phase 2 data was collected several years before this thesis was finally written. Nonetheless, examining how people discuss issues relating to AT can be seen to be highly relevant today, as people are still faced with having to confront ever more new technology affecting their lives, work and care. These accounts provided insights into how power dynamics relating to using AT were represented by different people and they were concerned to engage with these in their interview discourse. Using DDA helped identify particular ways interviewees used AT interviews to address their different purposes and to present their own voice in the systems where they use talk about AT to position themselves.

In the Chapter 6 Discussion I will discuss what these findings can tell us about AT-organising frameworks, when I consider the findings from both studies: phase 1 (commissioned evaluation reports) and Phase 2 (underpinning interviewee transcripts for the CHATS report).

# CHAPTER 6

# Discussion

*In any case, related to the object of investigation, it remains a fact that CDA follows a different and critical approach to problems, since it endeavours to make explicit power relations that are frequently obfuscated and hidden, and then to derive results which are also of practical relevance. (Wodak & Meyer, 2009)*

This project aimed to critically examine how AT-related discourses may reflect and contribute to the power of older people and care staff in homes and in community settings in using AT. It focuses on the question of how using AT may become an 'object of discussion' through discourses representing its use. Van Dijk identifies discourse analysis (DA) as an approach that attends to both macro and micro levels since we can only observe abstract structures "*in terms of how they are expressed or enacted locally in social practices in general, and in discourses in particular, that is, in specific situations*" (Van Dijk, 2009). Therefore, I decided to see if I could use DA to uncover a range of discourses that different people might use to express how they relate to accessing and using AT and to position themselves regarding AT to manage power issues here. What this PhD study has revealed is people actively finding different ways to address difficulties posed for them by AT, often downplayed in official accounts of AT and which their positions in care organisations may overlook. However, my interest in using DA and CDA to understand discourse issues arose as I reflected on changes in my own researcher role and positioning. This meant reviewing how I had contributed as a jobbing researcher to the earlier AT-related projects and materials, to then revisit these studies, where discourses they generated became the focus of this thesis. These role changes will have affected how I then chose the topic, methods, materials and analysis for this thesis, as I discussed throughout Chapter 3 on my methodology and methods. This Discussion Chapter therefore starts by reconsidering my changing role and positionality in Section (6.1), choices that followed, and then evaluating how those choices affected my work in the Phases 1 and 2 studies.

## 6.1 My developing role and positioning as a researcher using text and talk to engage with older people's care and technology and its effects on work presented in this thesis.

My researcher role and positionality moved from having a stance in which I had seen work for my early AT-related research reports as more about conveying 'information' but then went on to question contributors' approaches to talk and text, as I described in Section 3.12.i. I had been involved as a social researcher in multidisciplinary health services research teams to deliver the evaluation reports. Taking a more questioning stance meant re-reading these materials while being open to exploring how participants in AT-related interviews may themselves have been using discourses to realise their own purposes, not just the interviewers' priorities. This had the effect of reframing their contributions as represented in project evaluation reports as supporting *their* stance to AT being used in care.

In Chapter 1, I described how my experiences of research encounters problematised for me how users of AT in care were talking very differently from each other about experiencing care, including using care technologies. This alerted me to terms and language, in academia, in carer provider organisations in designing care AT research projects and in people using care AT, being distinctly located in organising care. This, in turn, suggested I needed to attend to the diverse discourses everyone was using in everyday care experiences and research about care. Shifting my attention here meant that I also recognised peoples' roles in care-related interactions as providers and users as leading them to frame topics and priorities as recognising some people and not others in their community or field of practice, underpinning "discourse communities" (Borg, 2003). Here discourses could be seen to promote or undermine some kinds of working together but also in opposing and resisting such collaborating,

The evaluation reports were originally produced by groups of researchers (including me) for groups (of service providers) when my positionality at the time meant I focused on contributing to provide a professional evaluation document. In that situation, my role was to help provide a mainly descriptive analysis, reporting literal accounts of AT and telehealth equipment and processes provided to residents, patients and staff and their everyday uses of it.

To apply the ideas I was developing to my PhD project, my positional stance moved from that of 'evaluation project researcher' to now question not just recount talk and discourses from the evaluation research and reports and to seek an approach to also problematise participants' reasons and uses for the discourses they used. Re-reading these reports to identify types of discourses found in those reports, helped me both reflect on and reframe them within the field of discourse analysis. Now I was treating these materials as topic (a site of investigation of how people may have used discourses to present AT uses) rather than as resource (as simply providing descriptive accounts of those uses).

Such discourses therefore became 'objects of research', and less as terms the research team needed to use to provide suitable answers to evaluation research questions about AT. Taking this stance then also highlighted multiple discourses encountered as unequally foregrounding voices with different interests in using AT. My positionality as a critical researcher encouraged me to use DA approaches to examine how contradictions may have arisen in how people used discourses to manage interactions.

So my earlier interest in carrying out interviews had been to progress these processes as research actions, rather than to focus on the discursive features of either reports or transcripts. This contrasted with my later role as critical researcher for the present study where I could go on to examine these features to recognise how people were actively producing and using text and talk for diverse purposes, and perhaps contrasting with earlier formally-stated research aims.

My critical re-reading of peoples' interview accounts meant I could not now see them as passively providing formal insights into technology functions, but as very much concerned to present themselves as competent people when talking with me.

As I developed my own critical discourse approach to working with these materials, I was not, therefore, seeking to code their meanings, nor to justify them in terms of fulfilling the aims of the formally-commissioned research. I sought to minimise any claims from me to bring privileged insights into what people meant or achieved when talking with me. This led me to select DA approaches which attended to how people might use discourses to link their communications to purposeful activities. I now wanted my analytic accounts of text and talk to highlight in a more equal and transparent way how participants were working to effect their communications and interactions. I have argued that this has enabled me to produce a quite different way of addressing care AT reporting, to see concerns, interests and values of all participants not just of providers, in using AT and in researching it.

## 6.2 Starting points for this study: Using text and talk to critically engage with older people's care and technology

This PhD study had two starting points, which related to how I had engaged as a researcher, working over several years with older people, care staff and family carers within a changing care environment. The first starting point was my search, over many years, for ways to recognise the challenges facing researchers when engaging people in research conversations on topics they may not have at first readily identified with. The second, following from this, was in trying to find ways to recognise how the voices of older people and carers, expressing their own interests, may or may not be heard. This was apparent even in research on AT developments, where the discourses being used emphasised the aim of improving care and support for older people. The early chapters of this thesis therefore argued the need for research to identify and critically examine discourses deployed when evaluating AT in use. This helped justify a DA approach, firstly to re-examine three examples of reports I had been involved in producing, and then to critically examine the transcripts of AT users' talk when contributing to one of these reports. This highlighted how discourses commonly used to report on and evaluate AT may contrast in many ways with how people used their own discourses to present AT as an object of discussion to manage their positions as new technologies were introduced (Berry & Ignash, 2003).

Chapter 1 highlighted how discourses of policymakers and commissioners positively promoted AT systems and devices as 'the next generation of care' for managing complex care needs, as numbers of people living with disability or impairment increased and available family support reduced (Berry & Ignash, 2003; Freedman et al., 2006; Freeman & Saidoo, 2013). These discourses commonly presented AT as an alternative to care which could be easily tailored to many personal, individual uses. However, examining the literature on the uses of AT

(Scherer, 2012) appeared to show it mainly addressing the factual practicalities of using equipment (Arthanat et al., 2007) and ‘informing people’ about doing this, presenting this as unproblematic, i.e. merely passing on information assumed to be beneficial. Discussing AT in this way reinforced expectations that it would help people perform many more activities for themselves (Jutai et al., 2005). In contrast, the methodological approach taken in this thesis, set out in Chapter 3, aimed to help us recognise that in interviews, different people were not just neutrally describing AT in terms of ‘events’ in their text and talk, but were making often contrasting claims relating to using assistive technologies.

Developing a discourse analysis (DA) approach for this thesis to apply to text and talk drew on the framework of Greenhalgh et al. (Greenhalgh et al., 2012) to consider whether the discourses they identified as underpinning an ‘organising vision’ for AT in health and social care systems could usefully distinguish different interest groups shaping and evaluating the fit of AT to their purposes. This examination largely confirmed this DA framework . as directly applicable in the Phase 1 study, in examining text from three different reports on evaluating uses of AT in different organisations and processes when it was introduced. The framework proved largely applicable to identify terms used to present AT in these settings and to be evaluated by the stakeholders (staff and/or users) interviewed in each study. The terms used in their framework, constituting four types of discourse, were also seen as relevant for presenting conclusions about issues affecting the successful use of AT to commissioners of reports. Using DA proved essential for critically placing these discourses in the context of worldwide organisational pressures on care services at the time, as argued by Hardy in 2001 (Hardy, 2001), confirmed when revisited more recently in 2022 by Hardy  and in my own work. These discourses were largely used to present AT in a way which fitted with organisational systems or management planning. However, in each report examined in Phase 1, a further (fifth) discourse, a Problem-Solving discourse, could be identified as being in evidence, bringing to the fore how less powerful groups of staff and users may have been actively working in their own terms to make AT fit with the organisational systems in their everyday practice. Simply identifying discourses that presented these groups as working actively was not enough to show how they themselves were employing these discourses in their talk about using AT, to make issues of their power or powerlessness when engaging with these systems into objects of discussion. This is important for recognising how peoples' uses of discourse dynamically contribute to dimensions of power. As Lassa et al. ((Lassa et al., 2023) have argued, *"researchers need to link the forms of power by answering questions that explain how discourse (productive power) create networks (structural power) and in turn how these networks influence institutions (institutional power)." (ibid, p. 1)*

This research therefore further aimed to critically examine discourses used in introducing AT into care, for individuals and for organisations. This included examining how technological processes in care might become presented as 'inevitable'. Taking a critical stance here meant recognising how such discourses can reflect institutions of power, including government policies, and then allocating funding for such new systems. Using a Critical Discourse Analysis (CDA) approach provided a means to focus on how individuals involved in using AT employed discourses to **position** people, including themselves and types of equipment. CDA can show how discourses privilege certain groups and so present developing AT as ‘common sense’, and so ‘obviously’ likely to be more effective in providing care for older people. The approach I took, to comprehensively examine the discursive devices which people used in interviews with me, highlighted both supportive and opposing stances to using AT. It also showed how people actively used their interview with me for their own representational purposes. Following how people used discursive devices (DDs) through their accounts also made it possible to see how they managed their talk to deal with problematic topics raised by AT then coming into homes and care homes. Managing talk here could include changing footing, as influentially introduced by Goffman (1949) (and reflected on by O’Driscoll (O’Driscoll, 2009) to claim or disclaim moral obligations (Davies & Harré, 1999b) in the context of the interview and of the business of care homes. Using this approach laid bare, perhaps surprisingly, how most people did not discuss AT as primarily technological and therefore not as neutral or objectively material. Rather, the discourses they employed identified how using AT raised moral opportunities and risks for speakers to successfully assert their claims to act competently.

As I had often spoken in previous studies when working as a researcher with people involved in using AT, I was aware of how different their talk was from the discourse of the official organisation or the home's management. This was because their talk often contained contrastive devices that highlighted gaps between how they had expected to use AT with what they later found they could and could not do with it. Such talk contradicted assumptions that service users, staff and family carers saw themselves just as passive members (or 'animators') of care systems and organisations, but actively involved in implementing AT (Butterfield & Ramseur, 2004).

Re-examining the three evaluation reports (see Chapter 4) to review the discourses used in their writing drew attention to ways in which 'research subjects' themselves were also pursuing their own purposes when they talked in 'AT-related interviews' (Arthanat et al., 2007; Butterfield & Ramseur, 2004; Lenker & Paquet, 2003). Examining discourses in the report texts revealed that the writing in these reports did not neutrally describe what happened when people living and working in care homes used AT. Later, re-examining the interviews which had been drawn on to produce the CHATS report (see Chapter 5) demonstrated how the discourses people used, when talking about AT, drew on discursive devices to do some very specific "things with talk" (Austin, 1975). People used their talk in ways that could actively present their own and each other's performances using AT to be positively evaluated, or at least to avoid being negatively evaluated. Individuals could be seen to use discursive devices, not only to position themselves as more or less competent users of AT, but also to find ways to avoid wider risks of being seen as not competent, when they were doing things that they saw as relevant when living and/or working in care homes.

The findings of Phases 1 and 2 studies therefore both illuminated the discursive abilities of people to avoid loss of respect and personhood by offering counteracting discourses and DDs in their accounts. The Phase 1 DA analysis did this by showing the importance of HU/PH discourses for representing peoples' experiences and actions as essential for recognising and evaluating ways in which people found AT as useful or problematic. The Phase 2 DDA analysis built on this by bringing a different lens to examine people's uses of discourses to defend or even build their power in relation to the care institutions introducing AT into care and therefore their daily lives. Such findings are now being supported by recent studies on DA to address "stigma in practice" which have noted the need for more attention to peoples' use of DDs to manage and mitigate stigmatising experiences as in the area of mental health (Lester & O'Reilly, 2021) .

Chapter 1 raised possibilities that some of the organisational discourses being used to promote AT in positive 'technical' ways, such as being 'advanced', may actually have diverted the attention of people involved in choosing equipment from addressing individual needs, and so may have even wasted money. Using Discourse Analysis (DA) (in Phase 1) and Discursive Devices Analysis (DDA) in Phase 2 provided ways to uncover the expressed concerns of homes' residents and staff as being very different from the officially promoted features of AT systems. The evaluation reports were seen to use specific discourses to present as ‘evaluation results’. Critically re-examining these reports, however, also identified how people involved in using AT were providing the accounts underpinning the reports, which presented them as actively identifying challenges that using the equipment raised for them and using their own distinct terms to talk about AT. Recognising this, therefore, prompted me to more critically examine how people may have used different discourses related to using AT to serve their own particular purposes, as in Silverman’s approach (Silverman, 2013).

Both Chapters 1 and 2 outlined official views as often optimistic, but also noted widespread research concerns about uses of AT being generally over-promoted rather than critically evidenced (Woolham et al., 2006). Woolham found that commissioners of AT in caring services routinely failed to refer to evidence (Woolham et al., 2021). Carrying out DA of the materials examined in this PhD study seemed likely to help uncover how discourses used to present both official views and research concerns diverged from the talk of several groups of people interviewed for the evaluation reports examined here. The Phase 2 study findings revealed many instances of people using their accounts to distance themselves from revealing performance challenges or organisational tensions in trying to connect their care with the equipment.

Taking this more questioning approach meant I could identify discourses which clearly contrasted the accounts of older people and carers as being positively 'assisted' by AT, as noted by Holthe et al. (Holthe et al., 2022), with the comments of people saying that AT made *more* work for them to do. Individuals linked this to having to build new relationships and to communicate with people and objects involved in AT, as seen in the Whole Systems Demonstrator studies (Cartwright et al., 2013). Advertising frequently suggested that the 'life changing technology' of AT could help people 'regain normality' in everyday life. However, the emerging research evidence, both qualitative (Sanders et al., 2012) or from national trials such as the Whole Systems Demonstrator project (Giordano, 2011), and more recently (Forsyth et al., 2019) and the ATTILA trial (Lariviere et al., 2021), showed ways in which introducing AT might actually disrupt people's existing routines and overlook their specific needs (Procter et al., 2014; Ravneberg, 2012).

Other AT-related discourses which might conflict with people's experience included those which linked monitoring and surveillance devices to 'keeping people safe' (Beech, 2008). However, this kind of discourse may not prioritise acting and talking respectfully and inclusively with the targeted group of people about their needs for safety and privacy (van den Heuvel et al., 2012). Whilst such discourse devices may help reassure people who care for older people, it raises questions about whether such technology invades the privacy of the older person (Baldwin, 2005; Zwijsen et al., 2011). Carers' common priority for the technology is to 'keep the person safe' and this may downplay basic everyday social monitoring, which can be much subtler and more individually-connected to the continuing connections of people to their own lives  (Roberts et al., 2012; Lariviere et al., 2021). A person with dementia may find AT monitoring or virtual care less appropriate if they are to stay more connected with their own and other people's lives (Bonner Steve, 2012).

Discourses presenting older people as AT users seem to focus on the practicalities of making adaptations to their environments, but in doing so create an environment of task-performing objects, rather than living spaces (Creaney, 2022). Rarely do such discourses seem to support users of AT to learn to find ways in which they can be active on their own terms in their own environments (Bertera, 2007; Borg, Larsson, et al., 2011a, 2011b; Cash, 2003), as Chapter 4 found in the evaluation reports' discourses. The idea of integrating AT into health, social services and education is compromised if there are not the resources to provide adequate equipment or support, or indeed to develop the system to fit it into. In this 'age of austerity', people may not easily access 'essentials', let alone AT to support their learning or recreation, despite such uses of AT promoting wellbeing. These constraints may also make AT a troubling subject to discuss, if professionals know they often cannot justify to commissioners the provision of precisely what a person may need (Whittle & Mueller, 2012) or recommend as appropriate in each case, as seen in the work of Scherer (Scherer, 2002); (Scherer, 2012; Scherer, 2007). This may undermine general confidence in the system. When I was a care services researcher, I often encountered talk which placed final accountability 'elsewhere', with no designated headline department or named specialist person to discuss AT as a service. This emerged as a repeated evaluation issue in the Phase 1 study findings from the ATiCHo study (Chapter 4) and presented AT as an often less-clear object of discussion. Reflecting on these ambiguities and tensions strongly suggested that re-examining different examples of texts which, linked to my previous researcher experience (Caldas-Coulthard & Coulthard, 1996), could help focus on how different stakeholder groups in health and social care were using various discourses to frame AT as an object for discussion in their organisations, lives and work.

## 6.3 Phase 1: Re-examining discourses in three evaluation reports

The Phase 1 study (Chapter 4) therefore began this re-examination with the three reports of earlier evaluation studies of assistive technologies used in health and social services. Each provided evaluation texts for different groups of people in different settings that were involved in introducing different AT-related processes: managers and senior staff in care homes involved in introducing AT in a group of residential care homes (ATiCHo) (Jepson, 2009); people living in their own homes, where telehealth AT was being trialled (TeleHealth) (Cross, 2008); and managers, care staff and residents in care homes where AT was being introduced to help manage falls (CHATS) (Fordham, 2010). Using DA of these report texts enabled me to examine ways in which descriptions of using AT might appear to promise wide-ranging benefits, but also might be ambiguous or mutually conflict with each other. Identifying where this was the case helped make visible how discourses produce selective ‘knowledge’ about using AT and for what purposes. This textual DA showed systems, processes and people being reported as ‘one system’ offering support (Ripat & Booth, 2005), but also being discussed in diverse, sometimes conflicting ways. Revealing the range of discourses actually being drawn on provided powerfully contrasting insights into the confusion and frustration that people encountered when trying to more openly discuss and deal with the unexpected complications of using AT in practice.

The Phase 1 study identified both Political Economy and Humanist/ Phenomenological discourses to represent personal and power-related circumstances in presenting their evaluations as more than technical matters. In addition, identifying how a Problem-Solving discourse was being used, as well as the original four that Greenhalgh et al. (2012) identified, highlighted how people were not passively accepting standardised solutions when evaluating AT. Using DA to re-examine the text of these reports helped show that organisations which introduce new AT systems may need to recognise individual interests and circumstances in much more detailed and nuanced ways, for these systems to be presented to user groups as working for them. This would frame AT, therefore, as helping to create enabling environments for people with a wide range of disabilities. However, other discourses used in the reports portray AT as designed more to inform care home management than the priorities of those living with particular conditions. That these reports also used Political Economy, Humanist/ Phenomenological and Problem-Solving discourses also suggests how complex individual needs for support are less likely to be addressed if AT is simply rolled out in standard formats (Halvorsrud et al., 2021). This further suggests that AT needs must be discussed in terms of the different contexts of actions in ‘care provider systems’ if AT systems are not to discriminate against or exclude individual voices.

The Phase 1 study aimed to examine the ‘organising vision’ of care services for using AT, visible in the AT evaluation reports that I had been involved with. While I did find many elements of all four AT discourses identified by Greenhalgh et al., (Greenhalgh et al., 2012) there were also some important discursive differences. These discourses were used to a varying extent in each report and the DA helped put the uses of discourses here into context in relation to the groups, technologies and study aims which each report was addressing. The findings also showed that in each report, each of the four discourses aligned with the specific positions of stakeholder groups within the organisations using assistive technologies. Greenhalgh and colleagues concluded that “intersectoral and interdisciplinary dialogue will help achieve … acknowledgement of, and adaptation towards, other perspectives and practices” (*ibid* p.11) to bring about more agreement between groups. However, just doing this would not identify who had power to invest and control the implementation of AT being evaluated in these reports. Phase 1 found issues of power and control to be very evident in the text of all these reports, for reasons relating to the ways in which AT was being used in each setting and each programme, which I now go on to consider in more detail.

The three reports were commissioned by organisations invested in introducing different and specific types of care technologies. We might not expect these reports to provide many examples of critical Political Economy discourse, as the commissioners of the reports were specifically concerned to identify how to promote healthcare which would increase their organisational efficiency. This was especially so at a time when services were being overwhelmingly privatised (Bayliss & Gideon, 2020). We could expect producing such reports for those with more power in these organisations (Cooper & Burrell, 20215) to promote a Modernist discourse, and so more 'forward-looking' views of technology-focused care as being beneficial. The Phase 1 study did find several examples of this discourse, yet also found some, though rather fewer, examples of Political Economy discourse. However, I also found that a Modernist discourse did not allow for recognising and reporting the multiple problems individual staff and residents reported encountering in practice. The reports also needed to evaluate responses to such problems, taking into account how these might affect stakeholders' efforts to make the technology 'fit their world' (Ohneberg et al., 2023). All the reports included qualitative research to identify such problems, as well as benefits, in people's experience, and so they could be expected to and did provide many examples of Humanist/ Phenomenological discourse to frame such issues.

However, in the first study report analysed (the ATiCHo study), findings went beyond the discursive framework of Greenhalgh et al. (2012), also drawing on a Problem-Solving discourse. This was used to present people as actively interacting with AT by finding ways to make AT systems or equipment fit more with their lives and practical working routines. The TELEHEALTH and CHATS reports confirmed a similar pattern of using mainly Modernist and Humanist/ Phenomenological discourses to describe their study designs and main findings on AT uses. However, both again additionally used a Problem-Solving discourse to represent participants in these settings as working actively to make the AT more 'user-friendly' and relevant to themselves. Using DA to examine these reports, from their aims to their findings, provided a means to document and account for, in detail, how people presented using AT, whether residents or staff, and helped identify what and how they described it as useful. Specific discourses were used in these reports to offer ways to describe in more detail the problems raised for all involved and to report any means of managing problems. Since beginning this PhD study, I have been able to demonstrate the critical usefulness of identifying language effects for making different cases and positions relating to using AT. However, this has not been widely used in the literature evaluating AT, which seems to largely take for granted its usefulness in the care of older people. While I found the framework of Greenhalgh et al. accurately addressed issues to be found in stakeholder presentations of AT, apart from the lack of a Problem-Solving discourse, it was unlikely to be widely taken up by a largely non-critical academic and commissioner constituency.

Reviewing this DA exercise for all three reports showed a striking and consistent pattern where reporting methods and background descriptions almost always used an ‘optimistic’ Change Management (CM) discourse. However, wherever issues or problems in the AT system had to be described and wherever people’s own words were quoted, more Humanist/ Phenomenological (HUM/PH) discourse terms emerged. Even more notably, where reports detailed the active work of care staff and residents to manage the concerns and challenges, they were experiencing, in trying to make the AT fit with what they were doing within the organisation’s structures, a Problem-Solving (P-S) discourse enabled them to show this active work.

This analysis therefore provides some empirical validation of the AT discourses suggested by being used. However, these examples also revealed at least one other discourse being deployed, which could recognise the active contribution of care staff, health professionals and service users, to make AT work within care systems. This suggests the need to more specifically examine how stakeholders themselves use DDs in a specific case to position themselves as competent users of AT. Doing this would require a closer and critical examination of examples of how people were deploying these discourses to represent themselves and others in relation to AT, making the case for the Phase 2 study (see Chapter 5). While other researchers, such as Gibson et al. (Gibson et al., 2015), have since used the framework of Greenhalgh et al. (Greenhalgh et al., 2012) in various ways to focus on topics, such as the uses of AT by older people and organisations, this thesis has focused more closely on people’s own uses of their discourses to describe their uses of AT. This better reflected my more recent and distinctive critical researcher positionality and role as I explained earlier in section 6.1 above.

## 6.4 Phase 2: Critically reconsidering care home participants presenting their own positions

My own positional stance as a critical discourse researcher here was therefore to provide critical reflections on discursive features to be found in these texts and in the context of recorded discussions. This did not require judging their value to me or to earlier commissioners of the research reports.

The CDA approach of DDA used in Phase 2 was used to examine the CHATS interview transcripts to critically consider how members of different groups in care homes were presenting their own positions during interviews and to identify ways they used discursive devices within these discussions to pursue *their* own specific interests relating to using AT. My role and positionality now required that I systematically examine texts and talk to see how people could characterise those interests and with what effects. Using Discursive Devices Analysis (DDA) revealed how people themselves did use discourses to advance their own purposes in talk about AT, and recognised issues of power, positioning and competence within this. Systematically applying DDA methods showed how people engaged in talk not as just providing ‘objective accounts’, but used DDs that we can see as promoting and safeguarding their own positions in relation to AT topics.

Engaging in talk about difficulties in using AT, as seen in Phase 1, seemed likely to pose discursive challenges for individuals to be able to position themselves in interviews as competent people in their everyday lives, as care homes residents or as employees providing care.

Much literature reviewed in Chapter 2 was seen to strongly promote AT as able to empower groups and individuals to live independently and exercise choice. However, other literature suggests that if people are pressured to use technology this may work to actually limit their choices or even open them to undue social control (Shakespeare, 2005), and so actually reduce their scope for living independently (Brownsell & Bradley, 2003; Burrow & Brooks, 2012; Pressler & Ferraro, 2010). Provider-led studies were less likely to consider whether telecare might reduce users' autonomy or personal contact within care relationships (Percival & Hanson, 2006). Particularly during the pandemic, telecare enabled virtual home visits, reminder systems and home surveillance to be directly provided to people in their own homes. Yet this may have actually reduced people's choices about who to be in contact with and when and using what equipment. This AT-related restriction may be creating new types of dependency, as seen in contradictory outcomes of telehealth in COPD, which seems to both increase and decrease dependency, as explored by Brunton et al (Brunton et al., 2015). Older people are often seen to be motivated to make adaptations to their environments themselves, on their own terms ((Cash, 2003); (Cash, 2004); (Woolham et al., 2006). The DDA approach used in the Phase 2 study did, indeed, present older people and various groups concerned with their care as seeking and finding ways to present themselves as actively shaping, and also resisting ‘standardised’ AT systems.

Using a DDA approach to re-examine interview transcripts revealed how people were managing challenges when confronting new skills relating to AT, to produce positive outcomes for positioning themselves. People talked about having to show how they had developed an appropriate level of competence in using such technologies (Waters & Sroufe, 1983). Using DDA helped display how people can draw on discursive resources to manage their ongoing everyday challenges, which were seen here to include risks to their perceived competence in engaging with AT. Waters and Sroufe (Waters & Sroufe, 1983) suggested that doing this would mean mobilising personal interactional resources *in context*. Applying DDA demonstrated how all interviewees actively worked at discursively positioning themselves as ‘successful’ in doing *something* proficiently when discussing uses of AT, even if the system raised problems or they acknowledged it as failing in some ways. Using DDA emphatically showed how talk about using AT in practice could not be seen as ‘just reporting’ on doing this. People were also using DDs to display their continuing competence in their situated roles and to skilfully, discursively, manage AT-related topics, which could have contradicted their competence. This echoes early ethnographic findings by Whyte (1959), and later by Coleman and Von Hellermann (Coleman & Von Hellermann, 2011; Whyte, 1959) of working lives, noted in Chapter 2, as showing discursive competence to be important for people so as to counter position issues arising when they discussed new technologies arriving in their workplaces. This echoes the challenges to positioning posed by introducing AT in care homes.

The critical aspects of DA shown in the data extracts informed a detailed discursive analytic commentary, firstly by identifying discursive constructions, then by rigorously considering interpretations for how these were being used in the context of these interviews. This meant the findings from the DDA focused closely on how people were presenting their experiences of using AT so as to position themselves, others, AT and life in their home. Using the DDA approach helped reveal firstly what discursive devices (DDs) were being used, and then what kinds of things people were doing with them in their talk, and further, how their discursive concerns may have reinforced or contrasted with the official ‘organising visions’ identified in the originating reports examined in Phase 1. Perhaps using a different approach, such as ethnographic observation, could have provided more information on the interactive performances (Goffman, 1949) or constructions of technology-related practices (Bijker, 2009), doing this would have taken the focus away from my central problem focusing on discourses. Such other studies could be very interesting to pursue to critically contextualise these discourse findings in everyday practice but would need to be developed in further work to conceptualise new uses of care AT-related discourses in interactions in diverse settings.

Taking a DDA approach provided very detailed insights into ways in which individual staff and service users were actively using their talk to present and position themselves in relation to AT use. This challenged assumptions that any of them might be ‘passive receivers’ of AT systems or biddable interviewees in these research interviews. Instead, their uses of DDs showed them as demonstrating their interest in having and keeping active control of presenting themselves as competent, or at least avoiding being seen as incompetent in using AT, but also in demonstrating this competence more widely, in living and working in care homes and being interviewed.

However, taking a DDA approach did mean excluding other kinds of contextual data and ways of interpreting what was going on or why staff and residents may have interacted around AT events in the way they did. For instance, ethnographic observations informed more by Foucauldian (Foucault & Rabinow, 1997), or a critical social practices approach could have helped reveal more about the power issues shaping the discourses or the inequalities limiting people’s abilities to speak or act in relation to using new AT. Such studies have exposed care homes as sites of conflict (Jervis, 2002). Therefore, a limitation of sticking with the DDA approach is, of course, that it could say nothing about the actual organisation structures and resources shaping those power issues, but which could be pursued in future research.

The literature has emphasised externalist arguments that people's autonomous action depended on their being in an enabling environment, and is not determined by their individual mental and physical characteristics (Chiapperino et al., 2012). Here, the findings demonstrated something more complex, showing how people could draw on talk and interactions to actively position themselves in relation to technological changes confronting them.

The types of AT used in the care homes studied in CHATS were various types of monitoring systems intended to enable care staff to care ‘more remotely’ and for residents to communicate more quickly with care staff. Arguments abound in the literature about uses of AT, which suggest that to monitor relationships can be enabling as well as coercive, thus power can be productive and not just oppressive (Foucault & Gordon, 1980), depending on whether users themselves have control over that technology. People’s accounts of discussing their experience of using AT as analysed within this PhD study did demonstrate the widespread concerns of both staff and residents to critique and to resist both AT systems and the evaluation research interviews themselves. Individuals discussed these topics in terms of questioning their control over their ability to present themselves or their homes as competent or caring. The DDs they used in their accounts helped identify how people worked to manage these concerns in the context of the research interviews. Of course, this is different from finding out how they could in fact manage the technologies or systems themselves. Finding out how they were doing this provides evidence to contradict the idea that AT only supports powerful organisations to monitor the behaviour of vulnerable groups. People’s accounts showed them as also actively working to place AT within their lives. While some studies (Percival & Hanson, 2006) raise the ethical human rights concerns of many stakeholder groups in older people’s care about privacy and surveillance, these concerns were not openly discussed in these accounts. But the talk of the people interviewed seemed to focus actively on how far they were informed about making the AT system work for them and drawing attention to what they could or could not do when the system ‘went down’. This seems to share the emphasis of Chiapperino et al. (Chiapperino et al., 2012) on creating enabling environments so as to make active citizenship a basis for ensuring AT would work better for its users and carers, especially in more deprived communities (MacLachlan et al., 2018).

The analysis of the CHATS interview data critically examined people’s representations of their own and others’ uses of AT in terms of the discursive devices they drew on to position themselves and others. The findings largely challenged any ideas of trust being widely held in these new systems. People also used contrastive devices to vividly show initially high expectations being encouraged but then disappointed. People’s talk relating to the new systems displayed many types of DD, such as resistance and negative evaluations, distancing and defending. Using such DDs enabled interviewees to carefully express critical judgements about AT systems and equipment, while also defending their own positions as still competent in performing their roles as good managers, residents and carers. Other qualitative studies have continued to expose care workers' sense of being in competition with AT and the need for technology providers to understand and align with their "experiential spaces", and not just to focus on designing solutions to save money (Saborowski & Kollak, 2015).

Managers' accounts might be expected to set out, and perhaps defend, positions which presented their homes as well-run (Nordin et al., 2017). DDs which provided such defences were seen in managers' accounts of encountering disruptions when AT was introduced into 'their' homes. At this point their accounts included devices which supported their claims that it was the AT causing such disruptions, rather than incompetence in their management skills. These accounts therefore used devices to 'objectively evidence' and 'script', which positioned relationships with staff as close, with good, routine communications and empathic, daily picking-up on concerns. Managers used devices to emphatically contrast their own positive expectations of well-working AT with the 'objective evidence' of staff reports of AT not working well in practice in their home and "terrible" blocking of previously good communications with residents. Their accounts included devices to lay blame on AT manufacturers' poor information and being unresponsive to staff needs. Accounts of other staff members in the same home also presented AT installers as unresponsive. Managers' accounts contrasted their own and their staff members' wishes to provide a care system to create a safe environment, against their experiences of "unacceptable" situations created by AT equipment not working and by AT suppliers not providing enough preparation for staff or back-up when incidents arose. Their accounts made cases especially powerful by using Extreme Case Formulations (ECF, as in Table 3.2) to argue the AT system was “impossible” for staff to work with. Their accounts therefore allocated blame but placed it well away from staff. ECFs were amplified by managers using DDs to represent how high emotions were raised, as it became impossible for them and their homes to accommodate the AT systems. Managers’ accounts displayed more open criticisms of using AT and its consequences for their work, the homes and the effects on residents, than those people in less powerful organisational positions. This suggests the kinds of “power effects” identified in other CDA studies (Samra-Fredericks, 2016).

This seemed to be confirmed in the more guarded critical accounts of other staff less senior than managers. While they were also seen to build objections to AT, they were using different DDs to present themselves as reasonable and agreeable individuals, displaying empathy and sympathy for people having difficulties with AT. They conveyed experiences with AT systems as being overwhelmingly negative but made this case more indirectly. They were less likely to use DDs like Extreme Case Formulations (ECFs) but did offer more specific details about using AT in practice. Their accounts focused consistently on how staff and residents had limited understanding of how AT worked, either in general in their home, or for themselves particularly. Their accounts more often used ‘vagueness’ devices, but with little specific discussion of how staff might be successfully using AT equipment. Their accounts did not often build a case for their own competence in using AT but referred to other staff groups like night staff or residents using AT. Their accounts sometimes included devices to allocate blame to a group, and if naming any of these, they were more likely to identify ‘outsider’ groups like ‘rehab residents’ to show ‘others’ as actively ‘misusing’ the call system, by pressing pendants and so time-wasting. Their accounts did not present criticisms as personal complaints, but instead used discursive devices to present the issues more as ‘factual’ descriptions of negative features of the system. This gave them a footing as ‘just reporting facts’ but avoiding showing themselves as responsible (i.e. as ‘author’) for opinions, actions or outcomes. These staff members were in senior but less powerful positions than managers, unable to openly criticise AT systems in terms of their work but would have to encourage more junior staff to ‘get on with it’. They were, however, well-placed to provide detailed accounts of some of the problems in practice, using DDs to avoid presenting themselves as allocating blame (Percival & Hanson, 2006). The Phase 2 findings, therefore, make a distinctive contribution not seen in any other research literature I have been able to find, relating to using AT in care. I argue that they uncover how people in diverse positions in the system – older people, care staff and managers – were discursively managing practice and interactional challenges raised when AT was introduced.

Care staff accounts included DDs to imply, rather more often than to assert, that the AT system frequently did not work. Nonetheless, they could still be seen to use DDs to more clearly evidence the case that the system fell very short of giving staff anything like enough support so they themselves could fully use the AT. So, they had a way to account for not being able to meet whatever AT-related responsibilities they may have been given, such as fixing malfunctions in the AT system. Their accounts were more likely to include ‘stake inoculation’ devices (as defined in Table 3.2) to protect themselves from being blamed for what they presented as failures in the system, not in people. ‘Evidencing’ DDs were given prominence here to show care staff as having been active in asking for specific types of help from suppliers or commissioners. They used other DDs to argue that they could not understand how the AT worked, while emphasising that this was not because they lacked competence in thinking, but because they had not been provided with essential written information in understandable formats. There was, however, an absence of DDs allocating specific blame to organisations or to the home where they worked. Instead, their accounts contrasted the little they knew with what they experienced in their contacts with more technically knowledgeable suppliers. They presented these supplier contacts as having much more knowledge about ‘official information’ and how to easily work the AT system, but as not sharing this with care staff so they could also understand enough to control it. They also used ECFs to emphasise how very hard they had to work, given their limited time, the pressures on them to deliver basic care and the inadequate help they had to learn about the AT system, if they were to competently perform any ‘extra’ AT roles. Their accounts, therefore, also interestingly included Concession devices to grant that whatever the drawbacks of the new AT systems, they still worked better in various ways than the old system. Overwhelmingly, staff accounts made the case that their performance of competence was undermined by their lack of power, often using contrastive devices to evidence that they themselves did or did not have relevant experience and knowledge to be able to take responsibility. They were arguing that organisations were setting them tasks that they presented themselves as lacking authority to properly deliver. Staff accounts here used ‘evidencing’ devices to present themselves as skilled and empathic, for instance in communicating verbally and non-verbally, while they were carrying out care tasks which they set out in specific detail. Their accounts offered general support for using AT in their care homes, but often avoided describing specifics (whether negative or positive) for their particular workplaces within the home, or their own experience. Care staff accounts therefore included a range of devices including ‘echoing’ or defining their footing as ‘animator’ not ‘author’, to avoid openly disagreeing with the policy on AT systems (Jervis, 2002). They could be seen to use DDs to mark boundaries between their own areas of work, whether as places or as specialist areas, and other areas where AT was being used. As care staff with much less power in the system, they were even less likely to make open criticisms of using AT or to open themselves to any further criticism in the ‘field of conflict’ identified by Jehn (A, 1997; Jehn, 1997; Jervis, 2002) and more recently, Din et al. (Din et al., 2014). Recent studies of digital technology developments have continued to positively promote them, but also recognised the need to address the staff pressures involved, suggesting that staff resistance has helped shape developments, noted by Taskin et al. (Taskin et al., 2022).

Residents' accounts also used DDs which helped them avoid openly criticising the AT system. This group had least power or voice in care home systems, and the DDs they used differed from those found in staff accounts and included devices to 'neutralise' or 'limit' conversation (or 'engagement') with the interviewer, the staff, the residents and in some cases the AT. Contrastive devices helped contrast the system as more or less responsive before and after AT was installed and using 'vagueness' and 'impersonality' devices could imply, rather than openly present, residents as not getting information or being involved with the new AT system. Some used discussions around using AT to present themselves as more competent and responsible than others in using AT. Some included devices conveying their own or others' fear and anxiety about how the system might work and of causing trouble if they openly expressed some opinions. Yet some accounts were also emphatic in showing refusal to provide any positive evaluation of AT, and in presenting their own lack of power in using it. Resident accounts, therefore, included many discursive devices to strongly convey their positioning in relation to power dilemmas created by living in a care home environment where AT had been introduced. Their discourses used direct examples and indirect implications to present the AT systems as notably disempowering for residents, yet their discourses shared staff groups' concerns of being positioned as incompetent in performing everyday life. Residents' accounts reflect their positions as least powerful in homes' organisation. This may suggest they therefore also had least power to directly criticise AT. Nonetheless, residents still actively found ways to avoid positively commenting on using AT and still continued to exercise their own ways of relating to it, so as to display other types of competence. The findings here contrast with recent critical research such as Swift and Steeden (Swift & Steeden, 2020), which examined representations of old age and ageing or of older people. This research criticised the ageist language used, yet rarely cited older people defending their own positions, as this PhD study's findings consistently showed.

Using DDA revealed how participants' talk could draw on their interactions with other participants involved in using AT in various ways, and to formulate their ideas about using AT. However, attending to which DDs they were using to do this clearly showed how they developed formulations in such a way as not to undermine their positioning of themselves or as seen by others.

This study showed these users of AT paying attention to very different concerns from those possibly predicted in the literature reviewed earlier, which identified the cultural and policy context surrounding organisations' discourses as, for instance, instrumental, cost-saving, or enabling people to live more independently. Using DDs to explore how people's accounts framed such concerns helped show how power differences and dynamics could be expressed and challenged through discursive constructions in the context of society and culture at every level, not just those with most power

## 6.5 Discourses of AT use as contested, not simply instrumental

This thesis has repeatedly revisited literature, evaluative questions and issues raised by organisations and individuals about whether AT moves people away from personal relations and decisions, undermines respect and inclusivity for AT user groups (van den Heuvel et al., 2012), or prioritises people’s interests unequally. My experiences in successive research roles had increased my awareness of conflicting views on benefits and harms of care AT. For example, constant health or safety monitoring may reassure some carers, but may reduce older people’s privacy (Zwijsen et al., 2011) and their access to their more personal everyday social contacts (Roberts et al., 2012). Monitoring may therefore actually reduce social inclusion: “The research found that older people's habits and norms do not need to be disrupted by the ambient system. What was of more importance was relationships between the older person and her or his ‘monitor’ based on trust, as well as institutional providers who need to instil or earn trust” (Lie et al., 2016, p. 1). I critically reviewed some lived political, cultural and discursive results of trying to implement more technological AT-related solutions. Phase 1 suggested that care staff and managers, as well as residents, identified many challenges for reconnecting as they tried to manage disconnections caused by AT-related routines, equipment and training requirements. Both staff and residents identified various ways in which they were experiencing less control in their lives and work in care homes. What also emerged, both in the text of evaluation reports and very vividly in the DDs identified, was how all groups described and demonstrated the institutional effects of the new AT systems on everyday issues that mattered to them at that time. However, their discourses also represented ways in which they were both actively recognising and actively working to preserve means of mediating and describing such effects, seen in the Phase 1 findings identifying uses of Phenomenological /Humanist and Problem-Solving discourses to do this. This was demonstrated overwhelmingly in the Phase 2 findings on interviewees' uses of DDs to position themselves as actively contributing to such mediation. Recent studies, e.g. (Cinini et al., 2021), examining the introduction of AT in practice with older people, have increasingly confirmed the need for such technologies to be seen as acceptable and supportive by users. But this means that people also have to see them as non-invasive, and not as interrupting everyday social interactions.

Meeting increasingly complex care needs requires integration not only between health and social care systems, but with other institutional systems such as housing (Ma et al., 2022). Technological systems themselves have dramatically increased in reach and complexity, but also require work to integrate between themselves (Watanabe et al., 2024). The big differences between telehealth and telecare systems reflect different levels of investment by commercial and provider interests, as well as government (Goodwin, 2010) and also the lack of 'interoperability' of technology with service sectors. In social care in 2010, England had the highest levels of telecare use in in Europe, yet in the UK there was much slower uptake of telehealth in health care, which Goodwin et al. suggested may be because of higher levels of evidence being required by health but not social care commissioners (Goodwin, 2010). Uses of technology do not automatically spread across societies unless complex systems of user support, training and translation into particular settings and lives are in place to encourage this and avoid unintended consequences (Nierling & Maia, 2020). The findings from my studies make very clear how AT users in each setting raised very specific issues of support, information and encouragement, which affected how well or badly they saw the AT as working for them.

We would expect dementia care to raise very particular challenges for both residents and staff to be able to access and experience AT technology as useful for them, and this was borne out in the discourses used by participants who lived or worked with dementia. Nonetheless, even here, such participants used DDs to represent themselves as actively managing how they could use AT.

There is considerable evidence that AT can help reduce the costs of care, as in the work of (Maresova et al., 2023). However, many researchers and policymakers argue that systems of policy and regulation linked to public funding are not keeping up with the pace of technological innovation. As we saw in these findings, organisations and individual staff, community clients and care home residents may find themselves having to put AT into practice without comprehensive support or follow-up, and manufacturers may often be more interested in selling products than meeting person-centred needs or organisational priorities in any systematic way.

The discourses identified were seen to be used to describe the consequences of people’s often-frustrating experiences of trying to work with AT systems when they did not get such comprehensive support. These experiences were characterised as often disempowering and lacking good, responsive communication about everybody’s needs and experiences, when people described systems being put in place but not being ‘joined up’. While official organisational discourses promoting the introduction of these systems focused more on their benefits, named as Modernist and Change Management discourses in the framework of Greenhalgh et al. (2012), these discourses may have played down the wider costs of introducing AT in people’s lives. Both my studies attended to the other discourses that were seen to be brought into play. In Phase 1 the findings were about discourses used in texts reporting evaluations of AT in use. In the Phase 2 study, the focus moved to the discursive devices (DDs) used by people actually involved in living and working with AT in care homes. Findings from both studies brought into critical view the lived social and bodily costs of making such policies work in practice. Debate continues between researchers who see AT as now essential to realising disability rights (Smith et al., 2022) and others, such as Fotteler et al. (Fotteler et al., 2022), which cite trial evidence of AT being less effective and even as creating more problems for older and more frail people. These debates highlight the importance of providing AT to include more tailoring and actively involving users in designing and introducing it. People’s concerns, framed in the findings of my studies, detailed how important it was to address these complex issues in detail before presenting AT as a simple route to ensuring disability rights.

## 6.6 DDA contribution to revaluing participants' active roles in changing care in AT and in interviewing

Using DDA provided ways of seeing and understanding how people use words to explain themselves to suit their own purposes for different situations, whether producing evaluation reports or discussing their experiences of using AT. My previous research role as a member of the team interviewing and then producing the report was not something which I could draw on to either strengthen or bias analysis here. DDA was needed here to provide a strong critical analytic account to transparently locate and identify DDs in peoples' accounts, and their effects in the context of the transcribed interaction not to provide additional insider insights to interpret reasons or develop further outcomes. While the data were collected several years ago, examining specific ways in which people could be seen to actively use DDs to reframe issues, directly or indirectly relating to AT, still has great relevance today, when there is even less popular trust in official organisations, including in care, welfare and health. A prominent example of a health conspiracy discourse, anti-vaxxers, has been well studied as in Orlandi et al. (Orlandi et al., 2022), pointing out the move to substitute emotions for evidence in their discourse. Many recent powerful studies have continued to demonstrate the contrasting uses of discourses by different groups to resist and present alternative views, even within systems organising to overlook or diminish their voice and positions. These include issues as far apart as the role of religious discourse in domestic abuse (Adjei & Mpiani, 2022), prescribed dress for women in a Muslim country (Hashmi et al., 2022), or indeed competition between professional carers in care services (Saglietti & Marino, 2022). These studies include Adjei and Mpiani (2022), showing abusive husbands in Ghana and their abused wives, both invoking religious instructions but using these to legitimise male authority in marriage, while women show this as entrapment. Similarly Hashmi et al. (Hashmi et al., 2022) show how former Muslims living in the predominantly-Muslim country of Malaysia could use discursive devices from and as interactional resources to construct anti-hijab discourses. CDA continues to be used to show people not necessarily agreeing or supporting each other, including in studies of care homes (Saglietti & Marino, 2022), where competing professional and other stakeholder groups were seen to use DDs to construct 'in' groups and 'out' groups, justifying positions by articulating positive and negative assessments of each other's actions and identities. Other studies such as (Ainsworth, 2002) study have identified how such tactics may have made some groups of workers, such as older women, largely invisible. Such studies treat care and culture as far from bland and neutral assumptions about efficient service delivery. The DD analysis demonstrated that such accounts can graphically show ways in which people with very different positions of power and interest in care systems could still strive to be active in voicing and addressing power issues, by drawing on whatever resources they saw as available to them in talk. Here, this meant interacting with the interviewer in care homes settings where they used the interview talk and the care home setting as a type of ‘bricolage’, to present something of themselves as having control within those AT systems being introduced. As (Kwon et al., 2013) have noted, management studies have largely focused on ‘leaders’’ views and actions, and rarely on other players in their organisations involved in building strategic visions. This current study has, unusually, been able to provide a more authentic and less de-personalised set of insights into how people position themselves and their everyday concerns in relating to such visions of technological change. The findings have displayed the discursive abilities of people to reposition themselves in relation to using AT as they offer counteracting DDs in their accounts. (Lester & O'Reilly, 2021) have evidenced the scope for using discursive analysis to address “stigma in practice”. The studies I have presented here show how people may work to resist stigmatising processes in introducing AT in practice and may point to new directions for further research in the area of people and care technology.

## 6.7 Implications of this research

The findings of this research have distinctive implications for 1) Conceptualising discourses in older peoples’ care; 2) Developing approaches to researching discourses in AT talk and text**;** 3) Applying discursive research in collaboration with people using AT.

1. **Conceptualising discourses in talk and text relating to using AT in older people’s care**

Findings produced in this research, using critical discourse analysis, have helped challenge some commonly-seen ideas that care AT related discourses in older people's care are being uniformly-held. Such discourses have often presented AT either as almost 'obviously beneficial' for people and care organisations, or, as 'confused', that people might express contrary views on care-related AT because they lack technical knowledge. Instead, these DA-informed findings have helped reframe such views as contrasting insights and experiences of people who use discourses to help manage confusions and frustrations when using AT in practice and to discuss these issues in everyday life.

This research found people's accounts of discussing their AT-related experiences used discourses to present concerns of both staff and residents to critique and to resist both AT systems and to some extent, the focus of the evaluation research interviews themselves. Individuals' discourses implicitly or explicitly problematised how they could present themselves or their homes as competent or caring in these settings when technologies were introduced. Their discourses could be seen to present ways to resist being shown as less than competent around AT when interviewed. How they used discourses therefore also challenged notions of trust in these new systems as being automatically shared.

Discourses found in public settings beyond care settings, such as policy or commercial areas, were seen as less likely to construct care AT as objects of discussion which enhanced peoples' efforts and abilities to manage the technologies or systems themselves. In contrast, the discursive findings from both the Phase 1 and Phase 2 study showed how people could persistently and actively use opportunities to find ways to manage risks to their usual activities, dignity and perceived competence, posed by how care AT was being introduced. Examining these discourses presents user groups and organisations as finding ways to discuss other actual and potential uses for such AT. This helps contradict the idea that AT is only useful to support powerful organisations to monitor and regulate the behaviour of less powerful and vulnerable groups. Findings from both Phase 1 and, especially Phase 2 studies, uncovered ways in which people in diverse positions in the system, older people, care staff and managers, could use discourses to manage challenges in practice and in interactions, shown as raised when introducing AT. Finding people using these discourses in these ways therefore also helps challenge ideas that discourses around using AT, are limited to information-giving or as instrumental/technological. Instead, recognising the range of discourses and discursive devices seen here can point to constructive ways to identify and perhaps to balance, inequalities in opportunities for less as well as more powerful people to shape the development and implementation of AT relating o older peoples' care and support.

### 2. Developing approaches to researching discourses in talk and text relating to using AT in older peoples' care

Using critical discourse analysis approaches here helped identify a variety of discursively-articulated concerns in care-AT related text and talk, and to interrogate taken-for-granted 'organising visions'(Greenhalgh et al., 2012) for introducing care AT. Using the framework of discourses promoting AT in older peoples' care proposed by Greenhalgh et al (2012) was partially validated in the originating reports examined in the Phase 1. Using a critical lens in applying this approach helped break down notions of any uniform “organising vision”. Instead, DA helped identify diverse groups and organisations as articulating multiple *different* visions to serve differing interests. This helps emphasise how researchers need to recognise discourses as being actively used by people and organisations to pursue often very different if not opposed interests, rather than take it as given that commonly reported talk and text simply provide ‘factual accounts’ of events and qualities of AT. Taking this discourse-focused stance helped me to seek to actively pursue approaches to researching discourses which could align my research activities to be more ‘with’ not ‘on’ the interests of a wider range of participants in care and in the research. This helped identify ways to respect different voices and purposes by applying approaches which could enable seeing and hearing them more equitably. The Phase 1 study methods revisited evaluation report texts in ways that aimed not to pre-judge the rightness or dominance of any single authoritative discourse. In the Phase 1 study this opened the way to finding other discourses such as the Problem-solving discourse being used to foreground participants’ active part in engaging with AT-related challenges. In Phase 2, taking and developing a DDA approach bore out by showing all interviewees’ use of discourses as being used to actively discursively positioning themselves as ‘competent’, or proficient in some actions, when discussing uses of AT. This also emphasised the importance of researchers recognising and not worsening risks to participants’ discursive competence when contributing to research. I applied discursively critical insights on positioning, shaping and managing inequalities, of Goffman (Goffman, 1981), Dorothy Smith (Smith, 1990), Bourdieu (Bourdieu & Wacquant, 1992), Foucault (Foucault & Rabinow, 1997; Guta et al., 2012), Harre (Harré et al., 2009) and Fairclough (Fairclough 2001) in the planning and analysis of this research. Doing this highlighted the critical need to understand and query representations of peoples' experiences of technological innovations, as never neutral, and not necessarily equally beneficial. Applying critical insights therefore helped construct, adapt and resist assumptions that using AT in care may be automatically empowering.

Critical discursive research provided a lens to identify people using discourses to re-position themselves and others in relation to using AT. However, it is striking that such approaches have not been widely used in the field of literature evaluating AT, to critically review how being useful has been routinely presented as commonsense in the care of older people. In contrast, my discourse analysis findings from re-examining earlier-used text and talk suggests, that more comprehensively critical and 'listening' approaches are called for in this area of research, especially when evaluating technological innovations including older peoples' care-related AT.

The rigorous and transparent account of applying these methods in this research has demonstrated the power of DDA to explore how people's accounts framing such concerns can show ways of expressing and also challenging in which unequal and diverse power dynamics within older peoples' care AT provision could through discursive constructions in the context of society and culture at every level, even those seen as having relatively least power in the care system. This may point to the future usefulness of DDA approaches to alert providers and users of AT as well as researchers, to critically examine in more depth the texts and talk being produced through research and found in wider society, when related to the contrasting interests of those producing texts and talk in care contexts. This suggests that discursive approaches to researching can be further developed in contrastive ways (as Dorothy Smith pioneered in making visible "contrastive categorising" effects (Smith, D., 1978). These can highlight how, for instance, forms of AT intended to reduce some forms of dependency such as using telehealth to manage COPD, or using satnavs to track "wandering" of older people with dementia, can increase as well as decrease dependency, as explored by Brunton et al (Brunton et al., 2015). Similarly, while new developments such as digital technology may have produced positive outcomes, these research findings show how critical approaches are needed to also to take into account people discussing pressures generated in using and resisting AT effects. Bringing in discourse analysis can therefore shape more complex research outcomes and technological developments to help integrate conflict and contradictions, as noted by Taskin et al. (Taskin et al., 2022) if we aim to develop more inclusive approaches to planning and designing AT in older peoples' care and lives.

### 3. Applying discursive research in collaboration with people and organisations using AT

Using DA to re-examine the text of these reports helped show how organisations which introduce new AT systems may need to recognise individual interests and circumstances by collaborating in more detailed and nuanced ways, to help present such systems to user groups as working *for or with* them. Taking on board peoples' interests through respecting and connecting with discourses *they* use to articulate these in their text and talk would therefore help re-frame both AT itself and AT research. Discursively recognising interests and the discourses promoting them, can therefor play a part in creating enabling environments for a wider range of people, including those with disabilities including communication and cognitive disabilities.

Using critical discursive research here has helped identify where some AT-related discourses which foregrounded particular values, such as 'keeping people safe', might in practice conflict with many peoples' experience and priorities. If carers, for instance, are recognised as particularly expressing such concerns for safety, if we than explicitly examine to the discourse devices all participants use may help persuade that while AT can help reassure carers, all participants may need to also recognise consider insights into ways AT may also invade the privacy of the older person (Zwijsen 2011). As Lariviere et al (2021) argue, assessing AT potential in monitoring or virtual care may need to be more individually-tailored to those issues are engaging individuals involved at that time. Discursive research can be used here to identify what people are articulating as appropriately supporting their activities of daily living, on their own terms.

Applying discursive research approaches here has helped identify ways in which *all* participant groups used discourses to assert institutional effects of the new AT systems on everyday issues that mattered to them. Attending to AT-related discourses has helped confirm the need for such technologies to be seen as acceptable and supportive by users themselves. But this means also actively seeking and applying ways to recognise how people can articulate contrasting views and using discourses to identify AT uses not as invasive, or as disrupting everyday social interactions and to resist more limiting and constraining forms of AT.

## 6.8 Recommendations

The following recommendations learn from and apply the implications of the research findings discussed in 6.7, to academic, research and public debates debating using AT in older people's support.

### 6.8.1. Conceptualising discourses in talk and text relating to using AT in older people's care

We should and can use discursive findings to more actively challenge assumptions that discourses which relate to using AT in older people's care, are adequate if they focus more narrowly on instrumental aspects of AT. The findings of this PhD study provide critical alternatives to do this. Discursive approaches should also be considered for helping actively seek out differing views on resources needed to provide equipment or support to be more appropriate and adequate to users' and organisations' needs and understandings. Introducing AT to support older people, means also offering different ways of informing everyone involved to fully discuss and voice alternative forms of information and practices. Providers and designers of care should explore discursive resources and training to address and resolve conflicting views about using AT in acceptable ways. Discursive resources should be matched to the different contexts of actions of 'care provider systems' to guard against AT systems discriminating or excluding diverse individual voices.

### 6.8.2. Developing approaches to researching discourses in talk and text relating to using AT in older peoples' care

We should and can identify research approaches which can attend to and reveal ways to recognise diverse and even contradictory challenges to competence which may be raised in stakeholders' articulated views on using AT in older peoples' care. This means attending to a wider range of alternative discourses and their uses for engaging with – or resisting - AT in older peoples' care.

These findings indicate the value of developing new directions for research in this field by integrating DA, CDA (including DDA) approaches with more interactive approaches, such as ethnographic observation, perhaps to provide more information on the interactive performances of AT-related practices (Goffman, 1949) or construction (Burr, 2015) of technology-related practices (Bijker, 2009).

We need to recognise that all groups involved in providing and using care-related AT will have concerns with and may well articulate specific institutional effects of novel AT systems on everyday issues that matter to them at that time. Research into discourses can reflect ever more publicly-voiced needs for care-related technologies to be seen as acceptable and supportive by users. This means continuously testing if and when people do or do not see them as invasive, or as disrupting their everyday purposeful social interactions and in living, rather than as unproblematically ‘performing tasks’.

### 6.8.3. Applying discursive research in collaboration with people and organisations using AT

If we acknowledge how older peoples’ care settings will be underpinned by differing and conflicting discourses, this PhD research may be used to help engage a far wider range of people and organisations involved to design and adapt environments to be more acceptable and to work in ways which can be more closely connected with practice in those settings.

The discourses of people I had interviewed then revisited in my Phase 2 study presented a range of common concerns about the quality of information they had to help discuss how everyone could help make the AT system work for them, including when ‘the system’ ‘goes down’. This could provide an important contribution to building collaborations to help make AT work more effectively, to create enabling environments. This would be especially valuable to help build mutual understanding and trust in more deprived communities and with more vulnerable people (MacLachlan et al., 2018). Discursive research can be used to explore and focus comprehensive and robust approaches to developing AT. The DA findings presented here can also be used to inform AT-related discursive research itself, to attend and respond to a wider range of alternative discourses. These findings help confirm that for care-related technologies to reflect views of what may be enabling (World Health Organization, 2020) across societies, there seem to be widely-shared concerns for these to also put in place well-developed systems of user support, training and translation into particular settings and lives. Acting on these expressed concerns can also help avoid unintended consequences and disruptions to everyday living (Nierling & Maia, 2020). Phase 2 study findings as presented here, showed very different discourses used by people as supporting such connections to be made. Discourse-sensitive approaches can be used to help consider detailed consequences for older people, staff and organisations, and which need not to be overlooked when introducing AT.

## 6.9 Strengths and limitations

A strength of this PhD study was its starting point in my many years' practical involvement in social research with older people. This motivated me to continually problematise how common discourses surrounding care AT, as largely instrumental and little-challenged in promoting positive aspects of using care-related technology. Realising this led me to search for ways to question how far care AT users shared these assumptions, through DA approaches. Using DA and CDA helped shift my focus to question what aspects of AT and whose voices, and usual discourses were foregrounding or backgrounding issues (Goffman, 1981). Using these types of discourse analysis helped shift my focus to alternative and contrasting features of what organisations and participants themselves were doing with the discourses in research conversations, to foreground or to background wider concerns relating to AT (Smith, 1987). Such concerns included how using AT raised moral opportunities and also risks for speakers and organisations in presenting their competence, not simply leading them to seek instruction in correct AT use, as much literature seems to assume. Applying these insights and methods gave me a means to develop new approaches and insights for understanding what happens in care AT in practice (Burr, 2015) and in research as multi-layered, dynamic and to be continuously questioned as Fairclough argues (Fairclough, 2013b).

A further strength is the detailed micro-level examination of the discourses to which has made visible ways in which organisations and people could use discourses to conceal or reveal issues. Again, much of the AT care-related literature makes more general assertions about experiences and results of using AT. Such assertions linked less to peoples’ everyday practices, than to standard measures or generalised accounts of using AT. Here, closely examining reports and people introducing discourses within conversations shows even discussions about practicalities of using equipment, in a different and changing light. This helps present people themselves as concerned to consider very different aspects of coming to use AT, and how it may have raised as well as solved problems for them, not just helping people do more but also in some cases preventing them from working in ways they wanted to. This close examination of discourses powerfully challenges organisational, and provider claims mainly to be ‘informing’. This PhD study has therefore highlighted conflicts between people’s accounts in terms of they were presenting such ‘information’, less as neutral guidance and more as discursive assertions of positive benefits or negative challenges.

Using the framework of Greenhalgh et al.  (Greenhalgh et al., 2012) on “organising visions” also proved important in helping identify and then to place the discourses found in the evaluation reports in the wider context of care AT development. Firstly, the framework of Greenhalgh et al. (ibid) supported using a critical approach to reframing such discourses as representing the interests of different stakeholders in introducing AT into care settings. This provided a firm basis to explore, identify and validate the discourses I found in these reports and elsewhere in the literature as well as helping me recognise a novel “Problem-Solving discourse” as being used to highlight participants’ own activities in building discourses linking the uses of AT to everyday practicalities in care and life settings to realise everyday purposes. Secondly, using this framework helped place peoples’ struggles in coming to use AT more widely in the context of growing global organisational pressures (Fairclough, 2013c) on care services and less in terms of unproblematically supporting individual activities, as Fairclough has advocated (Fairclough, 2013b). Using DA, and CDA DDA approaches provided a methodological breakthrough here to better see and help find alternative reasons for people taking very different stances from each other and from promotional policies and literature. These approaches enabled me to see people questioning performance claims for AT use in care delivery, and to recognise them as challenging such claims by also showing AT use as disruptive or irrelevant to their needs in practice. Using these approaches also provided means to understand people producing and using talk and text as ‘complex’ and ‘nuanced’ in identifiable ways, rather than just as ‘puzzling’, ‘irrational’ or ‘uninformed’. Using a ‘positioning’ lens reflecting the work of Goffman and Harre helped demonstrate how people and organisations could use talk and text to actively position themselves in the face of technological changes. Recognising peoples’ agency in discourse here seems increasingly important as the pace of social and organisational changes accelerates. Applying a DDA approach to positioning here has generated findings which identify discursive ways of managing practices and interactional challenges which the wider literature on AT in care has largely overlooked. The findings produced here, using these approaches, have shown how discourses used to characterise AT in older peoples’ care, can construct AT as an object of discussion, which is not passive or universally-agreed but as an object of dispute, even conflict (Fairclough (Fairclough, 2013a). These can be seen to reflect diverse interests as discourses foreground or background risks to competence and dignity, which may or may not be revealed, according to the varying power of users and groups to be seen and heard. This work has therefore offered distinctive insights into using and researching care AT with people using it. This is a novel contribution to understanding such issues in the field of older peoples’ care, to re-position people involved as having more equality in having their voices heard and as managing power issues raised when technological solutions are proposed.

### Limitations

Strengths identified for this PhD study may, however, also be seen as bringing some corresponding limitations. For instance, my long practical involvement in social research with older people, their families and care staff, could have led me to over-identify with what I heard as their concerns, rather than to rigorously conceptualise or critique my interpretation of their discourses. However, I did use my academic sociological training to systematically seek to build a robust critical questioning approach and to look for methods to set out and test an approach which would not simply impose my preferences and biases in selecting and interpreting discursive elements in text and talk. This allowed me to explore ways to continually question what text and talk could show about organisations and what people did in terms of presenting and using discourses to realise purposeful actions (Foucault & Rabinow, 1997). This offered a way to avoid attributing inner meanings or simply accept truth claims in the uses of discourses as I examined these in texts and talk. My methods focused on identifying alternative and contrasting features of what organisations and participants themselves were doing with these discourses and to attend to concerns as well as benefits (Smith, 1978).

Similarly, my consistently micro-level examination of these discourses can be seen as a weakness if it has not included sufficient analysis on the wider social and organisational structures potentially shaping the language and related actions I found. I would argue (as I commented in Chapter 2 and also in my discussion earlier in this section, of strengths), that this micro-level focus on how people used their AT care-related discourses has provided significant insights into voices and mechanisms almost entirely absent from most literature prioritising general experiences and results of using AT as expressed through standard measures and standard questions. Reframing policies and organisational claims as claims rather than neutral ‘information’ and ‘evidence’, can be used to develop further research and practice-based discussions, to provide more holistic views of whose concerns to take into account, and in what ways, so as to respect many voices, when introducing and researching care technologies.

The framework of Greenhalgh et al. (Greenhalgh et al., 2012) on “organising visions” seemed essential to place the discourses found in the evaluation reports in the wider context of processes in developing care AT. However, this may have also been restrictive. It may have imposed a pre-formed list of potential organisationally relevant discourses, and may have pre-empted analysis and discovery of other potentially-relevant discourses too early in the developing critical review and analysis. Uncovering a novel “Problem-Solving discourse” even here, may have pointed to a need to search for more, divergent discourses. Nonetheless, uncovering such tensions also revealed here did provide me with the springboard for working in a much more exploratory way with DDA analysis. DDA did indeed, reveal different, novel discourses showing participants in the CHATS interview transcripts as using AT for many different purposes related to their everyday practical concerns in talk.

I have argued that using DA, and DDA approaches proved very productive in drawing attention to and helping question common assumptions in literature, policies and care practices which often overlook less empowered groups of people. However, taking these approaches did mean excluding other kinds of contextual data and ways of interpreting what may have been going on or reasons why staff and residents may have interacted around AT events in the way they did or with what wider effects. For instance, linking Foucauldian, or critical social practices approaches to ethnographic observations (Greenhalgh & Swinglehurst, 2011) could have helped reveal more about the nature of power issues shaping the discourses, inequalities limiting people's abilities to speak or act in relation to using new AT. Such studies have indeed, exposed care homes as sites of conflict (Jervis, 2002). Sticking with DA and DDA approaches meant I could not report directly on organisation structures and resources shaping such power issues. These should be pursued in future research. Nonetheless, this discourse-focused study could show people as presenting issues of inequality, conflict and technology-related empowerment and disempowerment. Such novel details can inform studies to test and compare ways of introducing innovative care technologies in more inclusive and respectful ways. These approaches can also consider alternative ways of communicating and interacting with all participants to co-produce such innovations (Procter et al., 2014). The study findings here have been able to illuminate participants as identifying and acting to challenge moral risks and threats to peoples' sense of competence and control as new care technologies arrive. Such insights could be used to further explore discursive ways to manage practices and potential interactional challenges to their power more sensitively, not seen in the wider literature on AT in care. The study findings of this thesis have drawn attention to and problematised how current care practices can construct introducing AT when providing older peoples' care as a sometimes risky and restrictive object of discussion. This is of concern to practitioners providing older peoples' care, to people using AT in care and for researchers examining uses of AT. These discursive findings have also suggested how attending to discourses in use can identify ways to communicate across groups and to construct ways to draw on many more voices to reframe care AT as an object of discussion. This would call for more case studies, as well as larger and more comparative participatory studies to relocate the appropriate practices and reorganisation of care provision and policies, to explore more equally empowering forms of AT.

## 6.10 Summary and conclusions

This PhD study aimed to examine how AT in older peoples' care might become an object of discussion. I achieved this by developing questions and identifying methods of analysis to address them, 'working backwards' from completed reports to then re-examine how interviewees themselves had been using the interview conversations, in marked contrast to how the evaluation reports later used these conversations.

Examining discourses in three completed evaluation reports, and subsequently critically analysing transcripts of those interviews with participants in one particular study (CHATS), has suggested that the official drive to promote technological care provision may have been running ahead of the means available to involve individuals in shaping and applying AT in ways which they could control. The critical Phase 2 findings did display many ways in which people using AT could frame such changes or even draw on available discourses on AT to frame it as not involving them.

This kind of critical analysis contrasts more positive and system-supporting ‘AT organising discursive frameworks’ with what was found here about the less supportive discursive concerns of people living and working in care homes. Instead, individuals appeared to use discourses to safeguard themselves from different kinds of risks being raised when AT was being introduced and when they were involved in talk about it, which could challenge them to successfully assert their claims to act competently.

Older people’s needs for care and support for their disabilities are placed at the centre of these developments, but the voices promoting their interests are much less likely to be heard. This PhD study, by critically examining discourses surrounding the evaluation of AT uses showed that, depending on their status within organisations, some people, such as managers, appeared to have greater freedom to draw more directly on discourses which could express specific criticisms of the whole system. Others, such as care staff and residents or other older service users living in their own homes, were more often seen to draw on discourses which could avoid exposing their own positions as actors in the systems in which they were living and working.

‘Supporting independent living for all groups’ has been promoted by the disability movement in articulating a social model of disability as socially-determined, so that environments rather than physical impairments are seen as disabling (Hughes et al., 2002). We might therefore expect that using effectively designed AT might help ensure environments can be more enabling and build people’s confidence in engaging with their environments. However, the findings here showed people as displaying openly critical opinions about organisations trying to provide AT-related ‘solutions,’ if these overlooked people’s distinct abilities to become competent to address the complex issues involved in practice when trying to deal with these ‘solutions’ within their individual lives and spaces. This seems to bear out the arguments of Shakespeare and Watson (Shakespeare & Watson, 2002) that no single model, such as the social model, nor single solution, such as an AT system, can adequately address all physical limitations. Findings revealed how people discussed the way they dealt with complex care issues and showed them as also needing to constantly reflect and attend to their *individual* concerns and circumstances in many diverse ways. Perhaps this is something that AI-led technology may develop to deal with, and this PhD study perhaps shows in detail what practical and emotional challenges new technology people were describing. People’s accounts revealed many points where systems were not seen to connect with their lives.

This PhD study has found, examined and questioned many claims made in the literature, in policies, and in care management systems for assistive technologies as bringing system benefits for improving health and social care. The Chapter 2 review and the examinations of accounts and interview conversations in Chapters 4 and 5 critiqued the greater managerial priority given to examining the efficiency of technologies, as opposed to how well they fitted with people’s experience or priorities when receiving or delivering care. The concerns that people raised and framed and positioned themselves against, in these studies, demonstrated how everyone involved in the system expressed active concerns about losing personal autonomy or being perceived as incompetent. The findings illuminated how care technologies might be more fine-tuned to personal needs and the particular needs of staff within homes and should not be presented as blanket solutions. However, these accounts also raised questions about how these kinds of concerns and needs might be more accurately and respectfully recorded, represented and acted on in a wider system of governance, management, commissioning and purchasing. I also showed how making clearer how each organising vision for introducing a new technology may help mobilise distinct communities of stakeholders with differing values to engage or not with the technology. This PhD study highlights the importance of respecting and enhancing peoples' personal autonomy and perceived competence. The concerns seen to animate peoples' discursive concerns indicate the degree to which people may wish to resist stigmatising processes in introducing AT in practice. This points to the need for new directions for further research in how people can and should engage in changing older peoples' care technology. To effectively engage communities, [these factors] need to be taken much more seriously. The research literature has often identified AT, especially surveillance AT, as raising dilemmas about respect and inclusivity for AT user groups (van den Heuvel et al., 2012). The needs of carers of vulnerable people for reassurance through constant monitoring may be set against the needs for privacy of older people (Baldwin, 2005; Zwijsen et al., 2011). If carers rely even more heavily on technology, as now seems to be widespread, this still risks reducing people's access to the kinds of individual, everyday social contacts which may be better able to respond to ongoing events as found by Roberts (Roberts et al., 2012). Social inclusion and connectedness of older people may therefore be reduced rather than enhanced by technologies that superficially appear to increase people's connections to the wider world (Bonner Steve, 2012). Instead, these technologies can open them up to more inspection, while actually denying them access to any more control or resources for themselves. Chapter 2 concluded that critical review was needed to contextualise AT-related policies in terms of political, cultural, and discursive effects. The Phase 1 and particularly Phase 2 findings provided highly critical views of some polices being implemented, as they presented the continuing active concerns of older people and the people working with them to feel able and competent to take part in meaningful interactions to control their own lives and work. This tension is still raising both ethical issues and concerns, even from professionals whose work time might be saved by using intelligent AT. In the study by Wangmo et al., of professionals' ethical concerns (Wangmo et al., 2019), one participant commented they *"do not see that technology would help a lot, because it [our work] is about personal contact, about empathy and human company and so on. It is about deeply emotional things and there I do not see how technology could replace it" (ibid p.9).*

Such dilemmas seemed to have been heightened rather than resolved by more sophisticated communication technologies, such as voice-based assistants (VBAs) on smartphones, which are claimed to better support everyday tasks, but which collect vast quantities of personal data ever more invasively. The focus group study with 65 US adults by Vitak et al. (Vitak et al., 2023) illustrates the increasing boundary regulation challenges which people were able to link to the particular features of the technology*: "no matter what technology you use, I feel like if they want to find something, they can find out . . . your phone is tracked wherever you go, so they can tell you your whole life story if they wanted to."* (Vitak et al., 2023).

While uses of Intelligent AT (IAT) are expanding dramatically, the ethical concerns around user control are also growing, as identified by Wangmo et al. (Wangmo et al., 2019). They suggested that understanding the role of the end-user to control their own data, and so their own privacy, may underpin more user-centred and so more ethical use of such advances. My Phase1 and Phase 2 study findings provide means to show ways in which users can and do directly use communications in their own way, to take an active role here. These findings also suggest we may still be a long way from being able to ethically use AT technology to completely replace human personal care.

The review of literature in Chapter 2 and the Phase 1 and Phase 2 study findings consistently questioned assumptions that it might be easy for technology professionals to give people enough instructions to be able to use AT to perform an activity that they could not do independently (Jutai et al., 2005); (Jewell, 2013), because of having to deal with very different levels, types and purposes of users of AT. The Phase 1 and Phase 2 findings confirmed and demonstrated in detail some of the complexities of such different experiences. This was because people using AT in practice in different health and social care contexts (Steventon et al., 2013) may bring very different interactional purposes and priorities to bear when they discuss and use it. Examining people's use of DDs found they raised many types of ongoing concerns affecting the performance of their everyday lives in care homes, which could not easily be taken into account if AT systems were being designed a long way from these lives and settings. These expressed concerns seem very different from those in AT 'technical' literature on measuring outcomes of AT use and look well beyond organisations' concerns with cost savings for travel and people's time, to raise ethical, legal, and usability issues to address, before AT interventions could be widely and successfully introduced. This bears out the early conclusions of (Adya et al., 2012) that AT service delivery models currently in use and which promote top-down systems were fragmented and not being designed to carefully consider the needs of users and carers. Similarly, major evaluations and research trials, such as the Whole Systems Demonstrator project (Giordano, 2011), and trial findings of effectiveness and cost-effectiveness of the Whole Systems Demonstrator programme for telehealth in England, did not find that people receiving the telecare intervention significantly reduced their service use demands. The Phase 2 study findings in particular, show staff and users raising important questions for engagement in the technological changes they are faced with in new AT systems which are presented as ‘merely’ technological changes which they cannot see where or how to also to control social and policy changes to regulate them. These studies highlight the need for AT designs and systems to be seen to use language and communication to connect with interests of AT users and the wider society in being useable and relevant. This PhD study’s findings which identify discourses people use have shown how  people can articulate in detail what they value and can work with changing care-related AT.

I argue that this PhD study’s findings have therefore provided a resounding answer to my research question; that  using AT became an object of discussion, through peoples’ efforts to apply discourses in everyday life so as to present themselves as actively managing power relations. They can then be seen not as passive “users” of AT or of care nor as passive “respondents” in research but as actively resisting such stigmatising labels, within these re-examined ‘research conversations’, and within their lives and work with care.

# CHAPTER 7

# Conclusion

This PhD study aimed to examine how AT became an object of discussion in care and in research. I did this by developing questions and identifying methods of analysis to address them, by revisiting and reframing past completed AT evaluation reports in older peoples' care, through a discourse lens, then re-examined interview conversation transcripts through a critical discourse and discursive devices lens to make visible ways interviewees themselves were using these conversations. Doing this highlighted contrasts between the uses of discourses in these conversations and in evaluation report texts. I therefore changed my role and positionality from team researcher, contributing to these evaluation studies, to build a new role as a critical discourse researcher. reframing highlighted contrasts through a DA lens. This history informed how I chose methods and findings to try to redress gaps and inequalities I had noted from early research experiences. Shifting my focus brought to light how different participants in research on AT in older peoples' care, may have been unequally seen, represented or even not recognised at all. The discourses they circulated revealed care AT changes as not just helping deliver care tasks, but also as potentially bringing risks to peoples' perceived competence, dignity or even stigma. Taking part in research around care AT could also be seen as raising similar risks to personal and organisational competence in this area.

While the evaluation reports and report-related materials examined in Phase 1 and Phase 2 studies are relatively small and linked to local evaluations, they can be seen as critical cases to illustrate how organising discourses can be applied in talk and text about using care AT. They can be seen to give examples of wider organisational, public and research care concerns and also care provider, staff and older user's abilities to reframe and at times resist over-positive claims for AT uses. Phase 1 and Phase 2 findings make a distinctive contribution to this field by both developing and also applying discursive approaches to interrogate framings of information, evidence and policies. Again, this way of interrogating is not seen in other research literature on using AT in care. Many earlier research and policies may have presented criticisms of ageist language in policies and practice but have rarely evidenced peoples' articulated defence of their own positions as competent participants in care and in research, as has been seen and highlighted throughout this PhD study's findings.

I examined discourses in three completed evaluation reports, and subsequently critically analysed transcripts of those interviews with participants in one particular study (CHATS). The findings of this analysis suggest that institutional and market drivers to promote technological care provision may have been running ahead of the discursive means available to also involve individual users in shaping and applying AT in ways where they may have had control.

This critical analysis contrasts more positive and system-supporting ‘AT organising discursive frameworks’ with what was found here about the very different discursive concerns of people living and working in care homes. In the interviews analysed, people appeared to use discourses to safeguard themselves from different risks raised when AT was being introduced. This involved them in conversations about using AT which could challenge them to successfully assert their claims to act competently.

Older people’s needs for care and support for their disabilities are assumed to be placed at the centre of AT developments, but their voices promoting their interests are much less likely to be heard. This PhD study, by critically examining discourses surrounding the evaluation of AT uses, showed that, depending on their status within organisations, some people such as managers, appeared to more freely draw more directly on discourses which could express specific criticisms of the whole system. However, others, such as care staff and residents or other older service users living in their own homes, were more likely to draw on discourses whereby they could avoid exposing their own positions as competent actors in systems where they were living and working.

‘Supporting independent living for all groups’ has been promoted by the disability movement and articulates a social model of disability as socially-determined, placing responsibility on environments, rather than people’s physical impairments, to enable them (Hughes et al., 2002). We might therefore expect that better AT designs might help ensure environments that can build, rather than limit, people's confidence. However, the findings of this thesis revealed critical discourses directed at organisations that relied on AT-based approaches, if these overlooked people's distinct abilities to become competent to address the complex issues they encountered in practice when trying to use AT. As Shakespeare and Watson (Shakespeare & Watson, 2002) argued some time ago, no single model, whether social or technological, or single solution such as AT, can adequately address all purposes and circumstances. Instead, even in the limited range of texts and talk examined here, these revealed, more or less openly, many points of disconnection between AT systems as widely presented and the lives of people involved in working with them.

Discourses in literature, policies, and care management systems have promoted various claims for AT as bringing system benefits for improving health and social care. The findings of this thesis challenge the greater managerial priority given to examining the efficiency of AT, rather than how well AT could fit with people's experience of care.

Examining how other people discursively re-framed and re-positioned themselves in the studies analysed in this PhD, demonstrated how everyone involved in the system presented a range of concerns about AT risks, or indeed research risks, to their personal autonomy or perceived competence.

The detailed and grounded findings in this thesis showed ways care technologies might be more attuned to personal needs in the care system. These analysed studies presented fresh ways to examine uses of discursive discussions so as to evaluate AT effects on everyday life, and have suggested new ways of more accurately and respectfully representing users' concerns and needs so as to respond to them. Using such an approach would also be relevant to inform systems of governance, management, commissioning and purchasing of AT in the wider world.

The PhD study findings also showed how each organising vision discourse identified in Greenhalgh (Greenhalgh et al., 2012) for introducing a new technology, was indeed helping mobilise distinct communities of stakeholders with differing values to engage or not with the technology. The findings emphasised the critical importance to people and communities of not undermining their personal autonomy or their perceived competence, if they are to be engaged in AT changes in care. These analytical findings have also provided close insights into people's own critiques of surveillance by AT and how it can risk respect and inclusivity (van den Heuvel et al., 2012), and the needs for privacy of older people (Baldwin, 2005; Zwijsen et al., 2011), while also paradoxically reducing their access everyday personally-responsive social contacts noted by Roberts (Roberts et al., 2012) .
In the early chapters of this thesis, I argued that critical review in terms of political, cultural and discursive effects was needed to contextualise AT-related innovations. The findings on people's uses of discourses to manage risks of being viewed as

able and competent to interactively control their own lives and work raise both ethical and practical issues. These are not expressed neutrally or as issues of lacking information. The DDA finding showed that people need their personal emotional positions relative to AT to be taken seriously.

The Discussion chapter helped identify specific dilemmas found being posed by care AT for older people and care providers. This also considered how developing increasingly sophisticated and almost universal communication and care technologies has rarely addressed, let alone resolved such dilemmas. Instead, these technologies are widely discussed in public debates as invading lives and privacy perhaps even more than they support people's living. The external, often provider-led assumptions that technology is neutral could be contrasted with my Phase 1 and Phase 2 study findings. These showed how different types of users can and do directly use their own communications to take an active role in countering such invasiveness. Peoples' use of discourses to take active, more questioning roles, raises basic questions about whether it can ever be possible to ethically use these kinds of AT technology to simply replace human personal care, unless developers do not first collaborate to reframe the whole basis of what people themselves understand AT care as providing and what may be taken away from them in trying to substitute one for the other.

Throughout this thesis, from literature review to examining findings about discourses being used in research and in practice, this work has constantly questioned the idea that the role of AT technology professionals is simply to give people instructions to use AT to regain their independence (Jewell, 2013). Using AT has been increasingly shown to be required to engage with many different levels, types and purposes in different health and social care contexts (Steventon et al., 2013).

The Phase 2 findings, in particular, made very clear how people can make use of discursive opportunities to express different interactional purposes and priorities to manage how they use AT. Such complexities could not easily be taken into account in introducing AT systems, if these systems were designed a long way from users' lives. AT 'technical' literature on measuring outcomes of AT use, going well beyond cost savings for travel and people's time, must address the ethical, legal and usability issues people raise, before AT interventions can be widely and successfully introduced. This bears out the early conclusions of Adya et al. (Adya et al., 2012), that AT service delivery models currently in use and which promote top-down systems are fragmented and are not designed to carefully consider the needs of users and carers. Similarly, the findings of major evaluations and research trials such as the Whole Systems Demonstrator project (Giordano, 2011), of effectiveness and cost-effectiveness of the Whole Systems Demonstrator programme for telehealth in England, did not find that people receiving telecare interventions significantly reduced their service use demands. The Phase 2 study findings in particular provide relevant insights here by showing staff and users as raising many practical and moral questions about AT and care systems, if developing technology is prioritised more than developing means of regulating social and policy innovation in tandem. Such studies highlight the need for AT designs and systems to reflect the interests of AT users as well as wider society, as pinpointed in the kinds of details of its practical usability articulated in depth in the discourses identified and examined in this PhD study.

Some convincing answers have therefore been provided here to my central research question about how using AT became an object of discussion. My findings have shown how this can happen as people frame their uses of discourses in everyday life to present themselves as competent participants within these ‘research conversations, and also within the places they live and work. Managers, carers and residents positioned themselves using different and appropriate discursive devices to talk with me. These contrasted both with discourses used by policy and commercial organisations for advancing their interests, and also with the organisational discourses identified by Greenhalgh et al. (Greenhalgh et al., 2012). The discourses identified when examining report texts in Phase 1, and markedly in my analysis of stakeholder interview transcripts in Phase 2, showed how people in every role, were attending to their own concerns to manage risks that they presented their encounters with care AT interventions as posing for them. This suggests that introducing care interventions successfully will require everyone involved to pay much closer attention to issues of respect in older peoples’ care and to seek out relevant discursive connections with the very diverse concerns revealed here.

Despite some years having passed since the very local evaluation reports examined here were produced, the findings that critically examining text and talk about using AT from that time can still be seen as highly revealing today. These findings offer distinctive and important insights into the ways in which very different groups can seek and find means to present themselves as exercising power, in their activities both within technology systems and within the research conversations around these systems. This PhD study has, unusually, therefore provided a more authentic, less de-personalised or de-personalising range of insights into how people may continuously position themselves and their everyday concerns in relating to common ‘visions’ of technological change. We can see how people can work to resist stigmatising discursive processes in introducing AT in practice and may point to new directions for further research in the area of people, communications and care technology

An important feature of the Phase 2 study was to reveal participants’ accounts to show them as framing their care AT encounters, but also as using the interview talk about AT to position themselves in relation to the people and activities they were involved with every day. Recognising this power of participants to use research activities such as interviews has great potential for reframing research practices as more empowering for people, and not just researchers or organisations, perhaps building on the technological insights of researchers such as (Nordstrom, 2015) to reframe material-discursive practices in interviewing.

These findings strongly support the arguments for designers and planners to adopt person-centred approaches to technology in dementia care, which recognise the kinds of individual needs, abilities and insights articulated here. This would help enable older people, including those living with dementia, in a variety of care settings and other kinds of complex care to gain from the technology-based innovation being seen in Europe and North America, (Berridge et al., 2014). However, to do this successfully, would require attracting the resources of consumers and commissioners to recognise that new technologies will not automatically fit contemporary practices, and that new systems and practices will need to be supportively developed and regulated to enable this.

Seeing how diverse stakeholders drew on this different range of discourses and discursive devices to frame uses of AT could therefore help inform providers, designers, manufacturers and producers to make AT more user-friendly and identify challenges to its uptake. As Pullin and Newell argued (Pullin & Newall, 2007), based on considering ‘extraordinary’ rather than stereotypical ‘representative’ cases of older users of technology and staff, it is important to recognise how their lives and work in care may diverge from those of designer and providers. The distinctive findings from this research may also therefore help organisations and designers to identify how to engage with users of AT to discuss more directly how they might implement AT in practice to fit with everyday lives and their priorities. More evidence, based on the kinds of critical discursive analysis carried out here, may therefore be needed to reveal how and why different groups may consider and engage differently with AT, or may disagree with each other and with the technologies and why. How AT can be seen to unequally position older people and those who work with them cannot be negated.

This PhD study has revealed markedly different ways power differences and dynamics can be articulated and managed within older peoples' care AT provision. Such differences can themselves be discursively constructed to present AT competence at every level of power. These are in turn reinforced by and generate cultural practices, policies and technological issues. Discourses surrounding AT use may therefore either highlight or seek to paper over issues of risk, surveillance and potential abuses of power in using AT. This PhD study has highlighted both the need for and also identified discursive means to redress such challenges in care-related AT for older people.

# APPENDIX A - Table 3.2 A selection of Discursive Device (DDs) drawn from Lennon (Lennon, 2015) and other sources, listed in table

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
| 1.Disclaimers | I'm not racist, but | Displays awareness of potential oppositional reception(s) of the utterance prior to proposing it. | (Van Dijk, 1997) |
| 2.Extreme case formulations (ECF) | Every, all, none, best, least, as good as it gets, brand new, absolutely. The best friend I ever had | Often justifies or imposes a version of events. It often generalises the extent/strength of something. | (Wiggins, 2017)<br>(Potter, 2017) |
| 3. Stake/ interest exposure/ attribution | He would say that, wouldn't he | Asserting the vested interest or stake of another, particularly regarding discounting or doubting the authenticity of their position. Invokes reasons for how accounts are situated within pre-existing interests, often exposing weakness/bias. (Usually responded to with competing exposures or denials.) | (Potter et al., 1993) |
| 4. Stake inoculations | Even as a woman I think feminism is pointless | Denying or downplaying the stake or vested interest the speaker has in a situation. Attempt to protect the speaker from charges from other speakers. | (Potter, 1996) |
| 5. Contrasts | Kids felt much safer in the 50s than today | Usually emphasise difference and gaps between two things. They might contrast people (individuals/groups) or situations/events (then vs. now). | (Smith, 1978)<br>(Smith, 1990) |
| 6. Vagueness | I think it's right and wrong at the same time | Provides a flexible means of displaying an effect or (effectors) problem but minimises the possibility of being 'wrong'. As a result, it is also weaker and more prone to stake/interest exposures. | (Chia, 2000)<br>(Smith, 1990) |
| 7. Specificity | Just under 7% are now unemployed. We've made over 1,000 jobs a day since 2010 | Provides specific, detailed examples (e.g. dates/times, statistics) to emphasise the 'truth' of something. (Because it is more direct/forceful, it is often | (Lennon, 2015) |

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
| | | responded to with other specific examples.) | |
| 8. Blame | Keith had been annoying Rob all day. It was only a matter of time before he snapped | This does several things. It obviously situates blame with a particular group/person for a particular event/effect. But it sometimes has effects on the speaker: it may elevate the speaker (e.g. brave) or can provoke hostility (e.g. charges of ad hominem, point-scoring). | (Lennon, 2015) |
| 9. Consensus/ collaboration | The local MP has agreed to set up a petition, and everyone at work agrees with it | This involves bringing others into the account – usually supporters. This may be abstract (e.g. principles) or tangible (e.g. friends, other groups). | (Lennon, 2015) |
| 10. Scene-setting | It was a normal day, really. I was just on my commute when the bomb went off. | This is narrative device involving talk about the past, recognisable situations, etc. It puts what follows into some sort of context, prompting interpretations of the prior narration. | (Graham et al., 2020);<br>(Robertson et al., 2010) |
| 11. Three-part lists | This that and the other | Usually emphasises the extent or variability of something in terms of three's ('I do X, Y, and Z'). Emphasises the extent of somet*hing* more broadly in a class of things, whether good or bad. It often involves repetition of an underlying thematic concept. | (Jefferson, 1991) |
| 12.Membership Categorisation Device (MCD) | The baby cried. The mommy picked it up. | These position individual people/things (which can include speaker or others) into broader social categories (e.g. boy = son), which will relate to other categories, to form collections/groups (e.g. family). Such groups carry with them specific responsibilities, expectations, rights and obligations that may be invoked or assumed when referenced. These establish norms of belonging and conduct, shaping the social world into recognisable ways. Pronoun | (Sacks, 1992)<br>(Edwards, 1995) |

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
| | | selection (e.g. ‘we’, ‘us’, ‘them’) is one way of doing this. | |
| 13. Display empathy/ sympathy | It’s manic, isn’t it? | Displaying an understanding of another’s situation, particularly regarding their feelings, to make argument and ideas more balanced and sensitive. | (Fairclough, 1992);<br>(Ruusuvuori, 2007);<br>(Samra-Fredericks, 2005);<br>(Mueller & Whittle, 2011) |
| 14.Footing | We are just delivering this, we don’t like it (animator) | Positioning ourselves in relation to what we say either (originator) author (deliverer) animator and (receives and connects) or principal. Pronoun selection (e.g. ‘we’, ‘us’, ‘them’) is one way of doing this. | (Goffman, 1981);<br>(Clayman, 1992);<br>(Mueller & Whittle, 2011) |
| 15.Externalisation (‘out-there-ness’) | There are no funds to do this | Presenting a description as independent of the speaker doing the construction. | (Mueller & Whittle, 2011) |
| 16. Concession | I know you may find this hard to believe | Explicit acknowledgement of actual or potential counterarguments, to appear more balanced, informed and thoughtful. | (Antaki, 1999) |
| 17. Authenticity | I really think this makes sense for us | Describing oneself and one’s beliefs as authentic and based on personal conviction, as opposed to simply following orders or peer pressure, for example. | (Potter, 1996);<br>(Mueller & Whittle, 2011) |
| 18. Spontaneity | It just occurred to me that … | Presenting oneself as acting in a natural, unplanned manner. | (Goffman, 1975) |
| 19. Formulation | Obviously, this is a disaster | A statement of what has just happened in an interaction, summarising what is taken to be already known or agreed. | (Antaki et al., 2005) |
| 20.Nominalisation | The charity walk raised money. (We walked for charity and raised money) | Replacing verbs with nouns, to avoid mentioning those who performed the action, particularly to avoid attributing blame or responsibility. | ;(Whittle et al., 2008) |
| 21. Minimal contribution | Yes/no | Making short or single word contributions to discussion, often to resist others’ control of discussion, to withhold consensus or perhaps to avoid committing or exposing their own views or knowledge. | (Thornborrow, 2014) |
| 22 Excusing | I did take the money, but I was only borrowing it | Admitting the act in question is bad, wrong or inappropriate, to | (Harre, 1977; Lyman, 1968; Scott & Lyman, 1968) |

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
|  |  | explain and try to minimise culpability. |  |
| 23 Justification | I know it was wrong, but I had to do it, my hands were tied | Accepting responsibility for the act in question but denying the pejorative quality associated with it. | (Scott & Lyman, 1968) |
| 24 Corroboration | (The food is really good round here) He told me that was the best cake I've ever tasted | Statement that confirms or verifies by speaker citing 'others to shore up their explanation or accounts' (W&M 2008). Constructing factual accounts by citing independent others (P&E 1990) | (Potter, 2017);<br>(Potter & Edwards, 1990) |
| 25 Hedging | I think I have to sit on the fence with this one | Not taking sides in a particular cause, by expressing caution or uncertainty. | (Whittle et al., 2008) |
| 26 Stake Confession | 'Of course, we agree with you about that but…' | Attempt to display honesty. Speakers admit or 'confess to having a particular stake, motive or interest'. | (Whittle et al., 2008) |
| 27 Bracketing | The problem is there are going to be some teething problems in going live | Fencing off an activity or event so it doesn't disrupt the overall frame of shared meaning around 'what is going on here'. | (Goffman, 1975); |
| 28 Reassuring | I'll talk to you guys on that | Use of discourse to allay doubts/fears to comfort or soothe, to encourage. | (Whittle et al., 2008) |
| 29 Scripting | This kind of stuff happens | Opposite to Extreme Case Formulation (ECF), confirming as routine (as if following a script). Can present the account as normal and expected – and therefore acceptable. | (Bourdieu, 1992)<br>(Whittle et al., 2008) |
| 30 Distancing | 'We went back to first principles: our values, our real values' (Blair 2006) Valedictory Party Conference Speech | Remoteness in positioning from problematic interests to reduce contestation and challenges. | (Engelbert, 2012); |
| 31 Limiting | 'The fact is we are at war with terrorism' Blair (2001), Guardian 16th Sept 2001* | Restricting, restraining the domain of discussion, making what is considered possible and logical while excluding other options from consideration. | (Spencer Oatey et al., 2012); (Hülsse & Spencer, 2008) |
| 32 Denial | 'We have never been racist, have we Hilda?' Condor p452' | Refusal or unwillingness to accept usual negative self-attribute(s), often preceding expressing negative views against others. | (Condor, 2006); (Augoustinos & Every, 2007) |
| 33 Metaphor |  | Image meant to create an impact in the minds of readers. | (Musolff, 2012) |

| Device | Example | Definition/Function | Sources |
|---|---|---|---|
|  | ‘Let’s put a stop to the flood of immigrants’ or ‘Keep your paws off me’ | The aim is to convey a thought more forcefully than a plain statement would. They are exaggerated expressions so as to paint a vivid picture or become a profound statement, avoiding the need to back claims with facts. |  |
| 34. Echoing | ‘So, you liked it’.<br>‘I liked it’ | Mirroring or copying words or expressions of another speaker, which emphasises similarities. | (Kiss, 2020) |
| 35. Boundary-marking | Without the language, there is no work, no life. If you want to live you must learn the language | Marking one or more boundaries between categories, groups, spaces, to include or exclude, to define as ‘belonging’ or ‘other’ | (Duszak, 2002);<br>(Mähönen et al., 2015) |
| 36. Claiming | Christmas time, everyone accepts money | Displays awareness of potential reception(s) (e.g. disbelief) of the utterance prior to asserting it, seeking to ensure acceptance or acceptability. | (Pomerantz & Kubovy, 1986) |
| 37 Minimisation | ‘I just take a couple of bits of my protein food, but NEVER miss a meal completely’ | Treats object or account as minimal often using the terms ‘just’, ‘only’, ‘little’, ‘bit’. Can be used to downplay the significance of something | (Wiggins, 2017) |
| 38 Assessment/ Evaluation/ Second Assessment | ‘This is nice’<br>‘Yeah, it’s lovely isn’t it’ | Placing a value, upgraded if a second assessment agreed, downplayed if disagreed. | (Wiggins, 2017) |

# APPENDIX B – Brief summary of Final Report for Assistive Technology in Care Homes (ATiCHO, 2009) project: a qualitative evaluation of introducing assistive technology into care homes in Norfolk, Authors: Jill Jepson, Monica Curran, Chia Swee Hong and Martin Watson

**Background to the evaluation.**

The county of Norfolk has been a leader in utilising assistive technology for older people in their own homes, setting up a dedicated assistive technology (AT) support service to do this within the county since 2004, to avoid the move into residential care. Central government funding through Preventative Technology Grants (PTG) was later used to explore if using AT could increase an individual's independence within a residential care setting. The ATiCHO project to investigate the use of (AT) within care homes was jointly planned by Norfolk County Council (NCC) and the Care Services Improvement Partnership (CSIP) in two local authority (NCC) Care Homes and homes and three private care homes in Norfolk.

A comprehensive training package was provided for the staff working in the homes to assess for and use the devices with the care home residents. the University of East Anglia (UEA) carried out the evaluation of the project, jointly commissioned by Norfolk County Council (NCC) and the Care Services Improvement Partnership (CSIP) to consider the impact of the pilot project on carers and residents in participating care homes, specifically the impact on residents' safety in the local authority homes and on residents' quality of life in the private homes.

**The key objectives** of the evaluation were to:

- identify the perceived impact of AT on care home residents' quality of life, risk and those providing care and on provision of care by carers employed in care homes.
- prepare a report to commissioners reviewing the assessment for AT provision in pilot care homes, perceived outcomes of providing AT equipment and the potential carers' training needs. The evaluation was carried out from May-September 2008 by 4 staff members based in the School of AHP, UEA, including Monica Curran (MC), the researcher.

The evaluation used a mainly qualitative approach to identify the perceived impact of assistive technologies on the residents of care homes and also the carers working with the residents, using questionnaires and semi structured interviews to gain qualitative insight into the AT Project, and its outcomes.

Early in the project it became apparent that the participating care homes were experiencing problems with understanding and implementing the AT Project. The effect of this on the ATiCHo evaluation was that the early work of the RA focused on encouraging and supporting the implementation of the project and delayed the completion of assessment questionnaires for several weeks.

Questions were asked about:

- Age and gender of resident;

- Resident’s main problem(s) (taken from person centred planning list or equivalent record);
- Which piece of equipment being used?;
- Reasons for this piece of equipment being given to the resident?;
- Date started using this equipment;
- Monthly check that equipment is being used; If not being used, reasons for stopping equipment being used?;
- Whether equipment used in the way expected?;
- Any benefit from equipment for the resident?;
- Any problems the equipment caused for the resident?;
- Any benefit or problems from equipment for the carer?

**Findings**

56 individual equipment evaluations were carried out during the period of the study, across the 5 homes which took part. 51 residents were evaluated (mean age 86.1 years). Useage of 14 separate pieces of equipment was identified, out of the original list of 18 identified items, Frequency of use is identified in the following table, ordered by decreasing frequency.

| Equipment (code number) | Number of evaluations |
|---|---|
| ‘Other’ (19) | 9 |
| Personal alarm, worn around neck (12) | 9 |
| Door alarm / monitor / detector (5) | 5 |
| Nintendo Wii (11) | 5 |
| Bed occupancy monitor/detector (1) | 4 |
| Calendar clock (2) | 4 |
| Enuresis sensor (5) | 4 |
| Falls monitor/alarm (6) | 4 |
| Talking clock/calendar (18) | 4 |

| | |
|---|---|
| Large orientation clock (9) | 2 |
| Picture calendar (13) | 2 |
| Flood monitor/alarm (7) | 1 |
| Multi-sensory project (10) | 1 |
| Pressure mat (15) | 1 |
| Real Friend automated cat (16) | 1 |

**Interviews:** The interview data were analysed by two evaluation researchers (MC was one) to identify key themes arising. These were presented under the thematic headings: Assessment forms, Assessment for equipment, Equipment, Project implementation issues, Training.

**The Evaluation Findings** show a range of assistive technology devices being used in the care homes. In general, the devices were positively viewed as being of value to the residents in terms of reassurance, improved communication from staff and safety. It appeared from the findings that equipment that can be quickly and simply installed and require minimal on-going intervention from staff were viewed most positively, for example, bed monitors, door monitors, clocks etc. Equipment that required considerable staff input, such as the Nintendo Wii, or family input, such as a recordable photograph album were less easy to include in running the care home. However the benefits of the devices were recognised and staff were keen to use them with residents as time allowed. Participants expressed a firm view that assistive technology can benefit residents and that many residents became less anxious after adjusting to using different devices.

The evaluation did highlight some of the challenges faced by care staff, largely around the conflicting demands on their time and physical resources, and the need for on-going training and support in procuring and maintaining AT. The evaluation highlighted the need for clearly-defined and supportive project management for new initiatives like this, for residents and care workers to gain maximum benefit. The evaluation highlighted the difficulty for already overstretched staff to implement a new and complex initiative that many had no experience of before the start of the project, to maintain equipment and the goodwill of staff to set up equipment such as the Wii in their own time. Training for the AT project appears to have been too distanced from the implementation of the project. Finally, the importance of detailed and on-going assessment of individual residents appeared as key in the successful up-take of AT with older people who have complex needs.

Overall, the evaluation identified a clear role for effective provision of individualised AT solutions to support and enhance the care of older people in care homes, providing an infrastructure is in place to support the staff to fully optimise the use of the available technology.

## APPENDIX C – Brief Summary of Final Qualitative Report for Telehealth (Cross) (2008) – omitting quantitative findings. Norfolk PCT, Great Yarmouth and Waveney PCT and Norfolk County Council Adult Social Services Department Telehealth Project: evaluation report.

### Introduction and purpose

This study investigated a pilot telehealth service delivered by two Primary Care Trusts in conjunction with Adult Social Services in Norfolk. In July 2007 they commissioned a small independent research team from the University of East Anglia to describe and analyse the effectiveness, and patient and provider satisfaction with the pilot service. This project was funded by a Department of Health Preventative Technology Grant to initiate change in the design and delivery of health, social care and housing services and prevention strategies to enhance and maintain the well-being and independence of individuals, and its value within local health and social care pathways for managing long term conditions.

The Norfolk Telehealth Project was developed as a pilot to improve co-ordination of care for people with chronic conditions and complex care needs, by managing long-term conditions using technology that remotely monitored patients' vital signs in their home. The technology here was a monitor for people to periodically record vital signs such as blood pressure, blood glucose, body weight and lung capacity. Clinicians programmed the equipment with questions for the patient to provide a more accurate assessment of the data produced. Health care staff monitored patients' readings remotely to identify and highlight any signs of deterioration. If measurements fell outside pre-set limits, they were to arrange an appropriate response. The technology also aimed to enable healthcare professionals to monitor, evaluate and adapt individuals' treatment plans and encouraged users with Long Term Conditions (LTC) and chronic illness to manage their conditions. The project partnership comprised: Norfolk County Council Adult Social Services Department; Norfolk Primary Care Trust; Great Yarmouth and Waveney Primary Care Trust. Two disease-specific pilot sites were in West Norfolk (COPD) and Gt. Yarmouth (Heart Failure).

### Monitoring and Response

Patient biometrics collected via the Norfolk Tele-Health Project were transferred to a secure website. Alerts from this data were transmitted to staff at an emergency call centre where they could be monitored. Monitoring was to be routinely undertaken either once or twice a day, depending on individual need. When measurements fell outside pre-set limits, alerts were triggered and call centre staff liaised with other clinicians (i.e. the patient's GP) to determine responses required.

Clinicians including GPs, specialist nursing leads and their deputies could also access patient information at any time through having access to the secure website in order to identify any emerging trends. Patients were also able to view their results as they used the equipment to build up expertise and knowledge about their own condition. During their time using the equipment the patient was offered telephone coaching from Health Dialog. This service remained available once the patient has ceased to use the equipment in order to provide ongoing support.

**Funding**

The Norfolk Preventative Technology Grant (PTG) allocation was provided by the Department of Health to increase the number of people who benefit from assistive technology. It was designed to help support individuals in the community to live at home in safety, reducing the number of admissions to long term care and hospital. The aims of the qualitative evaluation were to investigate:

- Community and primary care usage during the intervention phase
- Both professional and patient satisfaction with the service provision
- Whether this service produces improved quality of life, choice and independence for participants
- Key characteristics of patients who benefit from this service

The evaluation was in two phases; Phase One (not presented here) audited service usage using descriptive quantitative data on hospital admissions, primary and secondary care usage. Phase Two employed qualitative methods to investigate patient and provider satisfaction with the service as well as patient perceptions of quality of life.

**Background**

In 1998, the NHS 'Information for Health' strategy predicted an increasing role for telehealth and telecare as a way of providing services, in the Government's plans to modernize the NHS. However, it recognized that for telehealth services to progress from "trial" status to routine health service provision requires patient and provider acceptance of such technologies. Despite reports of high levels of perceived patient satisfaction, studies of providers indicated some concerns about delivery barriers and training needs. Most research to date had relied on quantitative descriptive methodologies, but perceptions of satisfaction (critical in quality of care and health outcomes) will need to appreciate nuanced, multiple perspectives. This study adopted a qualitative methodology to provide a more complete picture of the Norfolk Telehealth Project. Study findings would inform a later service provider-led quantitative evaluation of effects on hospital admission, health status, and Primary Care services use.

**Study aims:** were to investigate:

- service provider and patient satisfaction with Norfolk Telehealth Project
- whether use of the service produces was seen to improvement in quality of life, choice and independence.
- the key characteristics of patients who benefit from this service

**Patient interviews:** A purposive sample of 16 patients (8 from each site) were recruited from patients receiving the Telehealth service in Norfolk PCT and Great Yarmouth & Waveney PCT. The total population comprised approximately 60 individuals at any one time.

**Provider satisfaction:** The researchers conducted interviews with the specialist nurses leading the Telehealth service in each PCT (N=2).

**Data Collection and Analysis**

Data was collected from patients and service providers. Participants were interviewed during their telehealth experience, using semi-structured interview guides asking about what differences providing this service had made:

- to how your condition affects your life?
- to make more or less choices about your health care?
- to be more or less independent?
- to impact on both patients and staff
- providing equipment more or less easy to use
- to Identify training needs

The analysis of interview and focus group data used a qualitative, phenomenological approach to identify impact on patients and staff of introducing the telehealth intervention. Results are reported separately for COPD and Heart Failure patients.

## Results - Interviews

**COPD:** For those patients interviewed, the overwhelming response was how beneficial the telehealth equipment had been. However this is interrelated with other important factors explored below. Generally recipients found the telehealth experience positive, describing the service they received from Telecare as good to excellent with “exemplary” integration with the COPD specialist nurses. The equipment was found very easy to use and no participants had problems using the unit despite a very low level of expertise prior to installation. There were few and occasional glitches in the system, easily ironed out with support from the equipment provider, and no dissatisfaction expressed. Recipients described feeling secure with the equipment installed and as someone ‘keeping an eye’ on them.

**Choice and independence**

Having telehealth appears, for many, to facilitate choices both in managing their everyday life and how they manage their chronic condition. The telehealth equipment measures key physiological parameters with many recipients demonstrated great skill in interpreting these, then using them to choose activities.

**Quality of life**

Was seen to have improved as there were fewer hospital admissions for some. However, some participants still saw their quality of life as poor compared to their lives before. This theme relates strongly to the financial resource that these people and their families who regarded their current situation as financially difficult and the equipment as imposing a financial burden, seen as both unnecessary and unjust.

**Drawbacks of the telehealth service for COPD patients**

The key drawback of the service for most COPD patients was the perceived cost of the telehealth equipment using a phone line to upload the patients’ physiological readings and responses and significant associated anxieties.

**Heart Failure patients**

The data from this group of recipients reveals a completely different response to the Telehealth project. This group of people was largely unimpressed by the telehealth service for several reasons. They did not find that it improved their independence or ability to make choices for managing their disease.

Participants described how the telehealth service had failed them on multiple occasions. Several had taking their physiological readings, found either their heart tracing or their blood pressure as outside of what were told was 'acceptable', yet got no back-up response like a phone call or a visit. Several described having been led to believe that in such cases they would be called from an ambulance trust or their GP surgery. They believed that their information was 'going nowhere' and that 'the NHS is not equipped' to deal properly with this type of technology and the lack of back up for them undermined their trust in both service and equipment.

Participants expressed frustration with the machine and its performance. The temperature probe was described as 'useless' taking far too long to obtain an adequate reading, described as 'unacceptable', particularly when they were feeling unwell. Generally this group of patients saw the service as an experiment which had been inconvenient to them and so not worried by no longer taking part.

No interviews revealed any changes in ways these people were managing their condition. Noone expressed any opinions about telehealth improving the quality of either their lives or their independence, despite being prompted about these outcomes. Instead they described their disease state as one to be endured and saw little that could be put in place to address their difficulties. Whilst a lack of back up emerged as an issue for these patients, further studies could explore whether psychological reactions to their condition may have helped shape their responses.

### Nursing Services’ views of telehealth

The nurses who supported the telehealth patients, were presented with a summary of the patients’ evaluation findings and asked for their views on the effects of the telehealth project on patients, themselves and their services. They confirmed that the evaluation had identified many of the important effects that they themselves had observed during the project. Despite these problems they saw the project as helpful in providing enhanced clinical care for some of the patients taking part. They thought the equipment was particularly useful in newly-diagnosed patients having their medication titrated before they stabilized, a group for future targeting for telehealth. They saw keeping patients’ expectations realistic as likely to improve patient satisfaction with the service.

### Conclusions

The Norfolk Telehealth Project was a success in the views of major stakeholders’ for both groups of patients, especially for the COPD patient group. But these findings cannot just be attributed to Telehealth alone as intervention effectiveness appeared to stem from a complex interaction of Telehealth and other support services, particularly specialist support nurses, to provide patients with a highly desirable support service and excellent patient satisfaction overall.

# APPENDIX D – Summary of CHATS Final Report – Care Homes Assistive Technologies Study (CHATs) Fordham, R. Lambert, R. Poland, F. Jepson, J.E., Curran, M. (2010) *Final Report for Norfolk County Council. University of East Anglia* omitting quantitative findings

## BACKGROUND

The CHATS (Fordham, 2010) study was initially commissioned in 2010 by Norfolk County Council, to provide a detailed and larger study through which to examine the issues of the effects of the introduction of AT equipment and support in Norfolk County Council (later to become NORSE) run Care Homes.

There were three main study aims.

- To consider the effect on quality of life of Care Home residents, of the introduction of Assistive Technology (AT)
- To examine the effect on working practices of staff in Care Homes, from the introduction of AT
- To examine the cost-effectiveness of the introduction of AT into Care Homes

The objective of the qualitative interviews was to determine how people perceived the outcome of providing (AT) equipment in relation to the needs of carers and residents to help prepare to use it effectively (Smith et al., 2018) The aim of interviews was to ensure in-depth consultation with care home managers, care coordinators and care assistants involved in using AT to deliver responsive care in care homes. In all cases, the researcher took time to find out the language that the residents and staff themselves used to describe the AT system, not to demonstrate technical knowledge, but to talk about their experiences in their own words.

A total of 38 interviews were carried out with 2 residents, 3 staff (1 senior and 2 junior care staff and 1 manager across each type of home (See Tables 5.1 and 5.2)) as well as 2 care staff given non-care “technician” roles in homes. Staff and managers were selected from the same care homes as the residents selected, and who routinely provided care for the resident group of interest.

**TABLE E.1 – CHATS Qualitative Interviewees in types of homes with or without AT installed**

| Client group | No AT | AT for 0-6 months | AT for 6+ months |
|---|---|---|---|
| Dementia | 3 Residents<br>2 Staff<br>1 Manager | 3 Residents<br>2 Staff<br>1 Manager | 3 Residents<br>2 Staff<br>1 Manager |
| Traditional | 3 Residents<br>2 Staff<br>1 Manager | 3 Residents<br>2 Staff<br>1 Manager | 3 Residents<br>2 Staff<br>1 Manager |

Purposive sampling was used to ensure maximum variation of experiences across the total sample in each of the “dementia care” and “traditional care” resident categories (Braun & Clarke, 2006). Selected residents were invited to attend a semi structured interview with an experienced qualitative interviewer (MC). This interview provided data on the lived experience of life in a care home with or without access to AT (Kvale, 1996).(See interview guides in Appendix E)., examining residents’ attitudes and impressions of the care provided.

A purposive sample of care home staff working directly with either or both residents in “dementia” and/or “non-dementia” categories, were invited to take part in a semi-structured interview. The key staff interview objective for CHATS was to identify how telecare (AT) impacts on how care can be provided by carers employed in care homes from their own perspective.

A field diary of the research process covered contacts with and visits to care homes and was used to contextualise the findings and discussion presented in the commissioned report (Froggatt et al., 2009).

The interviews were audio-recorded and transcribed, coding the data from the interviews each validated by one other project team member to develop codes and identify key themes. The findings were presented under these thematic headings: i) Equipment; ii) Assessment for AT; iii) Experiences of AT in receiving care; iv) Experiences of using AT in delivering care; v) Training; vi) Equipment

### Findings and Discussion

The study identified difficulties for staff and residents to successfully use a new and complex system which in several respects did not readily fit their existing skills or work practices or expectations. Initial and ongoing training in using the AT system appears uneven and seems to have had most impact where plenty of time could be given to addressing issues that they saw as most relevant to how they delivered care in their care home. A number of participants welcomed the training they had but questioned its relevance for the kinds of problems they found they needed to solve in practice, finding it difficult to use (or find) manuals and to fully use the range of equipment features that might help them to ensure its flexible and sensitive use for different residents and circumstances.

Detailed and on-going assessment of individual residents with complex needs was not seen as always possible. Systems and responsibility for assessing needs for AT was not always clear.  Setting up such systems was, perhaps complicated by the various problems encountered in using different types of equipment, which may sometimes have reduced staff confidence in seeing all items as useful and as fully-adjustable to individual circumstances.  Equipment being used to remotely monitor the safety and comfort of people with memory problems seemed to raise more of these challenges.  Also, the tight organisation of dementia units meant that the carers are in constant contact with the residents, so reducing the need for remote monitoring.  This means that the new AT might be needed more in the care of people with memory problems living in traditional rather than dementia-specialist settings (Owen and Meyer 2007).

To optimise the contribution of the new AT systems to their care provision, managers needed to be in close touch with the care staff experience of using them and then adjust systems, providing support and training to more closely fit with care delivery in the home.

## CONCLUSIONS

This qualitative study’s two main aims were all addressed:

To consider the effect of introducing AT on quality of life of Care Home residents

The qualitative findings show that the newer forms of AT were seen as having good potential for supporting better care. In general the AT was positively viewed as having value to the residents in providing higher levels of reassurance, improved communication from staff and safety, enabling responding to incidents could be more accurate and interactive.  Being able to talk more directly between staff and residents was seen as offering a real breakthrough in care.  However, for residents with more cognitive problems, the experience of trying to use or to understand, or avoid using equipment, could increase levels of stress and confusion.

Examining the effect of introducing AT on working practices of staff in Care Homes, the qualitative evaluation component confirmed that there is a clear role for effective provision of new forms of AT in enabling care homes to provide more responsive care to residents.  However, there were several unmet needs for staff to have appropriate and accessible support at every stage, to ensure they could use the system effectively and efficiently.  Assessment of individual resident needs needed to be more finely-tuned, especially for residents with cognitive limitations not to be left to use equipment that they were unable to use appropriately or safely, to minimise avoidable frustrations for both residents and staff. To optimise the contribution of the new AT system to their care provision, managers needed to be in close touch with the care staff experience of using them and then adjust systems and provide support and training to make a closer fit with how care was being delivered in the home (Berta *et al.* 2010).

# APPENDIX E - CHATS (Fordham et al.) Evaluation Study Qualitative Interview Guides for Residents and for Staff

University of East Anglia

**Care Homes Assistive Technology study (CHATs)**

**INTERVIEW GUIDE FOR CARE HOME RESIDENTS Version 25.10.10**

The interviewer will use question topics flexibly, covering them in a manner which encourages interviewees' to express their own views and experiences relevant to these topics in their own way. These will be developed conversationally through sensitive probing, to encourage interviewees' confidence in expressing and explaining their views, to articulate relevant experiences and also to elicit topics relating specifically to the interviewee's viewpoints. The following topics are indicative rather than rigidly prescriptive of the kinds of issues which such an interview will cover.

**Preliminary** What equipment are you using? What you think it does? (Their perception) How was it discussed and introduced to you?

1. What was happening in your life at the time you started using this equipment?

2. What did you think you needed when you talked about using this equipment?
   (Probe: What issues did they see as relevant to using equipment?)

3. What did you expect this equipment would help you with?
   (Probe: Hopes? Given specific information by care worker?)

4. How did you decide what equipment you would use?
   (Probe: How/how far encouraged to express expectations? Staff gave specific information?)

5. What help did you get to use the equipment?

(Probe: what sorts of help? One off or regular or “whenever I need help”)

6. What has it been like using the equipment?
   (Probe: How easy? How useful? Enough support to be able to use?)

7. In what ways, if any, have you seen a difference in your everyday life since having the equipment?
   (Probe: What kinds of differences? Examples of differences? How much difference has that made to you? Do you see that as better or worse for you?)

8. In what ways, if any, have you noticed a difference in how independent you feel since having the equipment?
   (Probe: What kinds of differences? Examples of differences? How much difference has that made to you? Do you see that as better or worse for you?)

9. In what other ways, if any, has your life changed since using the equipment?
   (Probe: - changes in need for help from staff? Different quality of life?)

10. Overall what impact has the AT equipment had on your care and quality of life?

11. Is there anything else that you see as important to you about having this equipment?

University of East Anglia

# Care Homes Assistive Technology study (CHATs)
## INTERVIEW GUIDE FOR CARE HOME STAFF Version 25.10.10

The interviewer will use question topics flexibly, covering them in a manner which encourages interviewees' to express their own views and experiences relevant to these topics in their own way. Sensitive probing will be used to encourage interviewees' confidence in expressing and explaining their views, to articulate relevant experiences and also to elicit topics relating specifically to the interviewee's viewpoints. The following topics are indicative rather than rigidly prescriptive of the kinds of issues which such an interview will cover.

***Preliminary*** Overall feelings about the assistive technology provided in the care home? (Pros/Cons)

What Equipment (AT) are you aware of in the home? How was it introduced? When was it *introduced? What training was provided?*

How easy do you find it to ***assess individuals' need*** for specific items of equipment?

(***Probe:*** Example of someone you have recently seen as needing some equipment to meet their needs. If easy/difficult to assess, why was this?)

Any ***information*** you find especially useful to you to help you assess and manage individuals' need for specific items of equipment?

(**Probe:** Example of using information to help you assess for equipment.  If useful/not useful, why was this?)

Can you tell me if there is any other ***source of support*** you find especially useful to you to help you assess and manage individuals' need for specific items of equipment?

(**Probe:** Example of getting support to help you assess an individual's need for equipment.  If useful/not useful, why was this?)

Any issues that arise when asking residents (given a choice) if they would like to use AT equipment?

(**Probe:**  Example of asking residents about using equipment?  If easy/difficult to deal with, why was this?)

How easy do you find it to ***identify*** suitable equipment?

(**Probe:** easy/difficult to identify appropriate equipment for individuals? Can you give me an example of identifying suitable equipment.  If easy/difficult, why was this?)

How easy do you find it to ***obtain*** appropriate equipment and supplies for individuals?

(**Probe:** easy/difficult to identify appropriate equipment for individuals? Can you give me an example of identifying suitable equipment? If easy/difficult, why was this?)

In your view has the most appropriate equipment been installed? (Any gaps/why)

How easy do you find it to support residents to use AT equipment?

(**Probe:** Can you give me an example of supporting residents to use equipment? If easy/difficult, why was this?)

What difference does equipment make for meeting the assessed needs of residents?

(**Probe:** Can you give me an example of how equipment has been used? If difference is positive/negative, why was this?)

Overall, what impact has the installation of the AT had on your working practice?

Pro's/Con's

Is there ***anything else*** you would like to comment on about the process of using equipment to help people you are caring for?

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