The London School of Economics and Political Science

Redefining the identity of old age through telecare

A Foucauldian inquiry into national care policies and practices at local social care authorities

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Abstract

Since the 19th Century, UK governments have introduced policies to address the *problem of old age*. These rely upon and reinforce the construction of an 'old age' demographic, as a distinct kind of identity based on the knowledge produced about older people across different scientific disciplines. Meanwhile, advancements in medicine and technology, as well as shifts in the political and economic landscape, have had marked impacts on the provision of health and social care. Today, the care information systems technologies known as *telecare* – increasingly offered by local authorities in accordance with national governmental policies – have been claimed to increase 'independence', 'choice', and 'quality of life' for older people. This thesis makes an enquiry into policies surrounding old age and telecare and into the practices of Surrey's local telecare initiative as a case study. It contextualises telecare within the wider history of social/health care policy in England to build the case that there are grand narratives of old age embedded in these sociotechnical practices that merit recognition - namely: 1) The biomedical model, which perceives ageing as a pathological problem associated with abnormality, deterioration, and dependency; 2) consumer culture, which perceives older people as a new group of homogenous, financially secure and powerful consumers; and 3) managerialism in social work, which perceives older people in terms of risk. This study utilises critical theory, discourse analysis, and Foucault's Modes of Objectification to reveal these grand discourses and other discourses of old age, discuss their implications, and explain how they have been perpetuated yet also transformed in the context of telecare. Collectively, their manifestation in the scientific classifications and dividing practices enacted by governments, institutions, and telecare professionals are seen to play a role in the construction of an identity of old age, which has been redefined within the context of telecare information systems.

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1 Introduction

This chapter gives an overview of the thesis by highlighting the main elements of each subsequent chapter. At the end of the chapter, I provide an outline that lays out the structure of the thesis.

1.1 Connecting Old Age with Telecare

Old age has a history of problematisations in Britain, through which certain narratives of old age have been produced and sustained. In the early 1900s, ageing was 'discovered' as a social issue, and 'old age' was created as a separate group (Phillipson, 1998). Until the 1920s, older people formed an emerging group that were differentiated based on their poverty as well as their status in relation to work. Starting in the 1940s, the vocabulary around ageing expanded because the welfare state established post-WWII, from 1945 onwards, started offering pensions for those of retirement age (now distinctly identifiable as 'old age pensioners' (OAPs)), as well as offering health care services for older people in a distinct way via the newly founded NHS (founded in 1948). With medical and technological advancements extending life spans over the century, by the 1970s, an optimistic view of retirement was created that considered it as a major stage in life; depictions of this age group as endowed with leisure time, energy and spare funds for activities and luxuries led to the emergent conceptualisation a new kind of target demographic: the 'gold in grey' consumers (Minkler, 1991).

These coincided with Thatcher-era policies, in the 1980s, that encouraged increased privatisation (e.g. of homes and various services), cuts to government spending on social care, and the dismantling of strong unions, of which NHS staff had been a large part. In the 1980s, public interest in ageing issues was growing alongside anxieties about the funding crisis of the welfare state (Gilleard and Higgs, 2014). Old age was seen as an economic burden, with the dichotomising vision of struggling young working people funding older dependents developing. In the 1990s, the status of older people faced destabilisation due to uncertainty about the provision of pensions. Old age was increasingly interpreted via financial justifications in an era of demographic constraints and increased outsourcing to

private sector providers. Today, old age faces similar interpretations, which are carried forward by the dominant historical discourses.

The making of the aged body and the older population into the central focus of scientific knowledges and political practices has its origins in the period during which age became a regulatory theme in family, schooling, work, and retirement. The existing discourses of old age are thus products of the ways in which bodies and populations have been historically problematised through the regulation of age. Three grand narratives of old age have been identified by critical gerontology[1] and old age studies, which are still relevant in the postmodern life course. These are: 1) The biomedical model that perceives ageing as a pathological problem and ties ageing to those discourses of decline, abnormality, deterioration, and dependency; 2) the consumer culture that perceives older people as a new group of homogenous, financially secure, and powerful consumers; and 3) managerialism in social work that perceives older people in terms of risk (Featherstone and Hepworth, 1989; Phillipson, 1998; Phillipson and Biggs, 1998; Biggs and Powell, 2001; Powell and Biggs, 2004).

This thesis combines two distinct subjects of research: 1) old age and 2) telecare technologies, which are known as the remote care services for older people. Due to the challenges presented by ageing populations and the consequentially increasing demand for health and social care services, technological care has seen a global rise in recent decades. In the UK, the scope of telecare services has been growing since the 1990s through the increasing number of government policies and strategies created about these technologies. In the past decade, the UK Government has been advocating the widespread adoption of telecare services, and the technology industry has been presenting new technological innovations to enhance wellbeing and health as the population ages. Large state-sponsored trials of telecare were conducted in the early 2010s, from which ambiguous results were published in medicine studies about the effectiveness of telecare (Cartwright et al., 2013; Henderson et al., 2013; 2014; Hirani et al., 2013; Steventon et al., 2013; Steventon et al., 2012). Nevertheless, the pervasiveness of telecare services has been consistently growing, and more local authorities have been offering these services to their residents. Telecare information systems occupy a greater part of public social care policies, and thus they create a new domain in which old age narratives can find their place. Older people are the primary

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[1] Gerontology, in short, is the scientific study of old age, and the particular problems of older people.

users and stakeholders of telecare technologies who are also processed, interpreted, classified, and organised within these information systems.

There has been a cohort of research about care technologies from different fields, such as: information systems, health services research, medicine, and sociology. Information systems research on health and social care technologies thus far have focused on: evaluations, the exploration of meanings and legitimisation of technologies via policies, and technologies as part of sociotechnical change (Van Offenbeek et al., 2012; Klecun-Dabrowska and Cornford, 2002; Klecun-Dabrowska, 2003; Petrakaki et al. 2010). The sociological studies of old age and care technologies have been mainly influenced by Michel Foucault's school of thought, and they reflect on such topics as: governmentality, control, surveillance, and ethics (Powell and Biggs, 2004; Sorell and Draper, 2012; Guta et al., 2012; Schermer, 2009).

Foucauldian theories and frameworks have also been influential in the domain of old age studies; power and discourse analysis has been the focus in this area of research. That is because discourses concerning old age are available in the structures and institutions found in everyday life, including 1) policy documents by the governments and 2) practices at social service institutions. With regard to the former, in the context of telecare information systems, there are certain narratives of old age that can arise out of policies that concern telecare. With regard to the latter, the practices at telecare service centres also enact these narratives and/or generate new ones. These texts and practices reveal "explicit and implicit ways of positioning older people" (NCPOP, 2009, p.4), meaning that they are given particular identities.

1.2 Objective of Research and Research Questions

This thesis therefore examines the discourses of ageing and age identity in the context of telecare. Macro level governmental policies and meso-micro level practices and policy enactments are examined. The aim is to: 1) explore those enactments or alterations of the grand discourses of old age in relation to telecare, and 2) explain the effects that discourses of old age have on the old age identity. The question, "How is the identity of old age constituted in relation to telecare technologies?" guides the research, and further research questions are identified with the guidance of Foucault's frameworks of discourse and subjectivity formation.

Critical theory, Foucauldian discourse analysis, and Foucault's Modes of Objectification are the elements that make up the conceptual framework of this thesis. The modes of objectification that are used in this thesis are: 1) scientific classifications and 2) dividing practices. Scientific classifications offer ways to study, organise, define, and codify human attributes based on the grand categories of *the normal* and *the pathological*. On the other hand, the second mode, dividing practices, refers to the practices that are put into action to maintain social stability by separating, categorising, normalising and institutionalising populations, e.g. by categorising people as 'the sick' versus 'the healthy' (Foucault, 1983). Such classification and dividing practices coexist and often reinforce each other because, while professions study and classify individuals, the governments and institutions discipline, divide, and regulate these groups.

Several conceptualisations and inter-concept relationships are introduced within the conceptual framework. Old age identity is linked to grand discourses of old age, and the significant role that modes of objectification play in surfacing and perpetuating these old age discourses is highlighted. An important assumption of this research is that telecare information systems are recognised as a *sociotechnical assemblage*. This means that telecare information systems are a complex system composed of many intertwined technological, political, social and economic elements, in addition to people, tasks, and structures. In light of these conceptualisations, the following refined research questions are constructed:

RQ1: Through which scientific classification practices do old age discourses surface in relation to telecare?

RQ2: Through which institutional dividing practices do old age discourses surface in relation to telecare?

RQ3: How do social care policies and practices of telecare service institutions enact and change the grand narratives and the identity of old age?

1.3 Case Study and Findings

To answer these research questions, a case study has been conducted. This thesis adopts a single case design, and it has been split into three analytical levels: 1) the macro level (national policy), 2) the meso level (local government and telecare partnership), and 3) the

micro level (telecare monitoring centres). The unit of analysis is comprised of policies and strategies of government, as well as practices of social care authorities in relation to the ageing population within the domain of telecare information systems. The Surrey Telecare initiative forms the empirical part of the study. Surrey Telecare is an initiative set up in the early 2010s by the service providers of Surrey's district and borough councils, Surrey County Council, and NHS Surrey to collaboratively raise awareness of telecare services and support the residents within the county.

The objective is to link the language and enactment of policies and procedures with the discourses of old age. I assert that old age identities are contingent upon the historical formulations of old age, and this thesis studies the constructed identity of old age in the context of telecare technologies. The use of Foucauldian discourse analysis and some principles of critical discourse analysis are applied in the same way to each analytical level (macro, meso, micro) of the case study, while the Foucauldian modes of objectification create the premises for a holistic analysis. Documentation, archival records, interviews, and direct observations are employed as the main methods in the case study. A specific coding and thematisation process has been carried out that concretises the data themes between different levels. I have defined *concretisation* as the process of developing concrete data clusters through validating data trends from different sources, to create a consistent narrative of the issue at hand. This is done in an iterative way towards establishing validity and practising consolidation.

For the macro level, the data themes have been grouped under: 1) policy forewords and 2) visual elements in the policy documents. This foreword and visual analysis reveals several discursive themes and the process of *modernisation in care*. For the meso-micro level, themes have been identified in light of the local information, which reveal additional themes; the process of *care management* is highlighted as the main structural process at this level. After their identification, these themes are collected under three overarching categories to align them in answering the three research sub-questions presented in Section 1.2.

1.4 Discussion

In the analysis of the overarching themes, the scientific classifications and dividing practices that occur at macro, meso and micro levels are highlighted. In addition to these practices,

structural processes and relations under *the modernisation of care*, and *care managerialism* are linked with the current political, economic and social realities of the neoliberal governmentality. Various discourses of old age are revealed through the study of modes of objectification and structural processes. It has been demonstrated that most of the old age discourses and the processes related to old age identified in the context of telecare sustain and enact the grand discourses of old age in various ways.

However, it has been the case that one of the grand discourses - the one that depicts the association between social welfare and old age - has been expanded within the domain of telecare information systems. Two processes ('Dependency on telecare institutions and professionals', and 'Digitised attributes of old age') stand out because of the novel form in which they appear compared to the historically continuous formation of the social welfare grand discourse. Even though these two elements enact narratives of social welfare's relation with old age, they also expand this relationship and add to it a sociotechnical narrative. It has also been demonstrated that care managerialism, as a structure, has been challenging dependency by appropriating the narrative of choice and empowerment in welfare discourses.

This thesis asserts that, although care managerialism and modernisation in relation to telecare may instigate certain forms of choice and independence – as defined according to the logics and value hierarchies of governmental and institutional bodies – they nevertheless also comprise of apparatuses that regulate the population and create collective control. Whilst the former – i.e. the positive impacts and experiences with telecare – have been widely covered by policy documents, the existing and potential implications of these systems on the lives and on self-conceptions of older populations have been deemed worthy of recognition and further investigation. Narratives of choice and independence, which are often taken for granted as features or effects of telecare, are thus deconstructed and disrupted in this research, and other narratives, discourses, logics and value hierarchies embedded in these innovations are brought to light.

In addition to the expansion of grand discourses, a set of discourses of old age have also been identified that exist outside of the three grand discourses. The narratives of 'social responsibility' and the 'intergenerational contract' appear to be in conflict when set against the other old age narratives and the processes within telecare information systems. Social responsibility appears as a dissolving, yet still continuous, discourse. It is demonstrated that,

despite noted contradictions, this powerful narrative enables the logics and processes of social care modernisation and care management, while appealing to traditional community values.

Overall, the discourses of old age and the structural processes relating to old age reveal an identity of older people that is an 'other' to mainstream society. I conclude that the identity construction process noted at all levels of data can separate older people from the rest of the population, and position them as dependent and as discontinuous in terms of their past and present identities. Moreover, it can, in some cases, foster a misleading, reductive conceptualisation of older people as a singular, homogenous, and fixed group, as opposed to a reference to a state of being, that artificially links a diverse range of people (highly stratified in terms of culture, socio-economic conditions, etc.). Finally, the question of why this matters for older people is reflected on with a final discussion about *technologies of self* (Foucault, 1983) and *looping effects* (Hacking, 1995), because socially positioning older people is intricately linked with older people constructing their own selves.

1.5 Contributions

This thesis contributes to theoretical, methodological, and practical domains. A theoretical framework is created that depicts certain relationships about old age and telecare information systems. The framework also places old age identity in a particular position based on the social positioning of older people by policies and by institutional practices. Telecare information systems are revealed to be sociotechnical assemblages that are composed of entangled social, political, technological and economic elements that frame the generation, circulation, and deployment of old age discourses.

This research also fills in a gap in literature: it claims that the study of information systems can benefit from interactions with the knowledge of gerontology and old age studies. It investigates and identifies particular structural processes and relations, which have social effects on social identities, in the sociotechnical assemblage of telecare.

The IS debates on the marginalisation of certain groups in ICT innovation also play a part in this thesis. The marginalisation of older people has been identified to be mediated through the homogenisation and through particular discourses that can potentially have negative

social effects on them. It is also demonstrated that telecare information systems are not arbitrary social constructions, but rather operate as a representation of the regime of truth, which has a normalising effect on discourses that are constructed within the information systems.

The critical theory embedded in this research makes it possible to reveal certain relations - such as surveillance and the intensifying relationships between professionals and older people - and to identify them as over-shadowed by narratives of independence and personal control through choice. These narratives are disrupted, because this research questions the taken for granted assumptions embedded in particular technologies. The research enables new conceptualisations of telecare that consider how: 1) rather than simply offering 'independence', new forms of dependency are created – namely, increased dependency on mediating technologies and on the care professionals with whom they are connected via these technologies; 2) although there is certainly 'choice' offered to older people, the range of technological devices and systems offered after risk assessments are in fact limited to those that are government-sanctioned and commissioned by local council bodies. It is worth noting here that these bodies are shown to be, to some extent, incentivised to compete (e.g. in terms of offering cost-effective solutions) for access to the limited government budget, and some are tied to private sector providers and stakeholders.

The technique of data *concretisation* has created levels of iteration towards data consolidation. This process has been beneficial in establishing links within the macro level itself and between the interrelated discourses and processes of macro level and meso-micro levels. The use of foreword analysis and visual analysis to thematise and consolidate data in all analytical levels can be considered as a methodological contribution in the context of old age. I identified more insights into the discourses of old age through these methods, because forewords and visual elements reveal new meanings that may not have been directly or explicitly stated in the text.

As for policy implications, it has been discussed in this thesis that the investigated policies and strategies do not reflect older people's current contribution to the enrichment of society. Referencing older people at macro, meso and micro levels should undergo a careful consideration to avoid implying homogeneity of this marginalised group with reference to their capabilities, socio-economic status, and social care needs. I also state the importance of acknowledging the normative ideas of empowerment, self-management, and morality

embedded in the policies and functionalities of telecare. These ideas should be acknowledged by telecare policymakers, telecare developers, telecare commissioners, and telecare professionals to create more collaborative and concordant forms of self-management that can be empowering for the users.

1.6 Outline

The structure of this thesis is as follows: The Literature Review (Chapter 2) reviews the literature of gerontology and old age studies, and it creates an association between old age and telecare. Telecare is placed in the field of information systems and other fields, and theoretical insights are revealed with regard to how these technologies can be linked to the problematisations of old age. This leads to the general research question: "How is the identity of old age constituted in relation to telecare technologies?"

A set of concepts, constructs, and inter-construct relationships are defined in the Conceptual Framework (Chapter 3), which will be used as the basis for the case study. Telecare information systems are recognised as sociotechnical systems that consist of technological, political, social and economic components. The conceptual framework offers a presentation to show where old age identity and discourses, as well as associated policies and institutional practices, are placed within the same framework. This chapter presents the refined research questions.

The Research Design (Chapter 4) discusses the methodology to answer these three research questions. The case study design, methods of data collection and of data analysis, generalisability of findings, and theory building are described here. It introduces the data concretisation process that takes place between the analytical levels (macro, meso, micro).

Findings (Chapter 5) presents the history of the National Health Service and of telecare policies to contextualise the state of social care services in England. The findings from the case study are iteratively grouped under codes and themes, which accumulate to become six main themes at the end. These themes reveal the structures of *modernisation in care* and *care managerialism*, as well as discursive aspects of data that concern old age. These categories are then classified under three overarching themes to assist in answering the research questions.

The Analysis and Discussion (Chapter 6) answers the research questions by applying the modes of objictification to the findings. The assumptions and abstractions of the conceptual framework are applied here. The chapter presents the discourses of old age and structural relations that are mediated through policies and institutional practices. Then these are placed within the grand discourses to reflect on how the grand discourses have been sustained and expanded. At the end, old age identity is defined by reflecting on the discourses and processes identified that are sustained, disrupted or are dissolving. A new theoretical framework is constructed that presents revised statements of inter-construct relationships and places the identity of old age in relation to telecare.

The Conclusion and Contributions (Chapter 7) presents an overview of the thesis, and it discusses how this research contributes to theory, to methodology, and to practices and policy. Finally, possibilities for future research are outlined.

2 Literature Review

This chapter reviews the literatures on old age studies and telecare technologies, and combines them with the historical problematisations of old age. In information systems literature, there is a notable lack of variety with regard to interactions with the fields of gerontology, sociology of old age, or ageing studies, and other cultural studies in general. The implication is that the research on those technologies that are mainly targeted at a certain demographic, in terms of group identities, might be underrepresented in the field of IS. There is a history of the use of critical theory and sociological frameworks as part of IS research; however, technical approaches, such as that of management science, have been favoured more often by the main publication outlets for IS researchers. Because of its relatively younger foundations, the scholars of the IS field have looked to accepted referenced disciplines such as computer science, management studies and economics for already approved standards (Willcocks, 2006). In addition to this, it has also been argued that the boundary of the IS field remains fluid, which provides IS scholars with the flexibility and the strength to allow new ideas into the field (Hirschheim and Klein, 2011).

In the same way, the frameworks and school of thought within the IS field - especially the particular uses of critical theory and the Social Study of Information Systems (Avgerou, 2000) that incorporate a number of approaches such as Actor Network Theory and sociotechnical systems – can be invaluable when applied in combination with the knowledge of old age studies. The problematisations of old age act as the key to this thesis, as they constitute a connection to grand narratives and the identity of old age, which will be investigated in relation to telecare information systems.

The next sections are divided into two main sections: 1) the first will introduce the premises upon which the problematisations of old age were built, and which narratives of old age were produced and sustained; 2) the second section reflects upon information on telecare technologies, their relation to older people, and different approaches used in telecare research. Parallels between IS and sociological approaches will be drawn in the same section. At the end of the chapter, a research question will be proposed, which will later be developed into more specific questions in the chapters that follow.

2.1 Ageing and Old Age

> 'Insofar as there is a history of ageing, there is also a history of efforts to control, supervise, and self-regulate the ageing body.' (Biggs and Powell, 2001, p.95)

2.1.1 A brief history of old age

The idea of old people as a separate group, and the creation of the old age pension, are the products of the late 1800s. In Britain, state pensions began in 1870s, and non-contributory pension legislation came into effect in 1908. Prior to this period, provision for older people was not differentiated from provision for people with sicknesses (Slater, 1930). The political environment at this point considered old age as a problem that required new social policies. In the early 1900s, ageing was 'discovered' as a social issue. Until the 1920s, older people formed an emerging group that were differentiated based on their poverty as well as their status in relation to work. Poverty and marginalisation were common occurrences in the lives of older people, which led to the construction of a framework of older age that was based on similar occurrences and experiences. Consequently, old age was constructed around "harsh or softer versions of dependency" (Phillipson, 1998), such as the concept of older people as a problem population, or of older people as deserving of a reward for their past contributions to society.

In Britain, several social rights were gained with the start of the post-war (after WWII) period welfare state, with a growing idea of social inclusion. Starting in the 1940s, the vocabulary around ageing expanded, because the welfare state was offering pensions and health services in a distinct way compared to the previous periods, when old age had been constructed around poverty and dependency. Until the 1950s, old age was a social status of white heterosexual able-bodied men. In the institutionalised life course of this society, the modernist model of social structure provided the boundaries of the labour force – and chronological age, rather than corporeal age, was taken as the legitimised means through which men could exit this labour force. The state was the main provider of support when this chronological limit was reached, enabling men to be freed from labour. Therefore, men's

lives were more or less divided into two frames of status: 1) one of 'working age' and 2) the other 'old age', which was inevitably framed by the former (Phillipson, 1998). This strict marking of men's lives by their chronological age did not follow the same fashion for the women's life course. A woman's life was defined by individual circumstances, her health status, and personal relationships (marriage, motherhood, widowhood etc.) rather than by the economic system, as was the case for men (Gilleard and Higgs, 2014).

In the post-war welfare state period, the modern government was given the central responsibility over older people for the first time, and it did so in a novel way through developing a moral framework. The identity of older people was influenced by this framework, and it evolved in various ways with emerging ideas such as 'active retirement'. Retirement as a positive experience took time to spread beyond a certain class and group of retirees. At the beginning of the post-war period, retirement was seen as a psychosocial crisis, with increased morbidity and mortality rates (Phillipson, 1993). These could have been the consequence of loss of work-based relationships and loss of self-esteem with age. However, by the 1970s a more positive view of retirement was created. The understanding of retirement as a major stage in life with active lifestyles was fostered in this period.

In the 1960s, after the high point and subsequent dissolution of the 'first modernity' were experienced, a new 'normativity of diversity' (Gilleard and Higgs, 2014; Beck, 2007) started to replace the former cultural arrangements. The body started having other possible identities, and new embodiment types – new forms of social agency – were realised upon the features of the corporeal. This made possible alternative lifestyles as distinct from the standardised lifestyles of the first modernity. With respect to the identity of older people, the society now found itself in a period of crisis. Between the 1950s and early 1970s, the institutions of the welfare state and retirement were the main enabling forces that were considered to secure old age. By the 1980s, however, the development of earlier retirement plans caused financial distress on the state. This situation was exacerbated by the stagnating growth of the welfare state in the mid-1970s. Contributing factors such as a rise in inflation and unemployment as well as a slow economic growth challenged the principles of spending on the welfare state. Following this, the older people's welfare state started to erode in late 1980s. The expansionist welfare reforms of the 1960s and 1970s shifted towards plans to privatise the provision of pensions, and to separate the better off from the poorest by targeting the resources on the poor.

The nature of discussions revolving around old age in the Britain of the 1980s was influenced by such factors as growing public interest in ageing issues, the crisis of funding for the welfare state, and concerns regarding its future. These factors made old age enter an arena of ambivalent points of debate: on the one hand, growing old signified liberation; on the other, older people were seen as a marginalised group of the population (Phillipson, 1998). The problems with public spending were more openly constructed around old age as an economic burden, and the restraints in social services and health care expenditures were increasingly justified through this. By the 1990s, several crises were observed that were related to the status of older people in this society, arising from doubts surrounding the system of retirement and from views challenging the assumptions about the welfare state. These changes started to gradually result in ideologies that defined older people as a burden to society (Phillipson, 1998).

2.1.2 The study of old age and the welfare state

The nature of demographic change has always been a concern for Western societies, and it has been problematised with costs and burdens that these changes would bring. Increasing expenses of health care services, and the ageing population becoming an unwelcome burden on society were the kind of doubts that arose with demographic changes in society. In the UK, a succession of social policy changes took place after the Second World War: 1) this started with a welfare system, 2) turned to marketisation in the Thatcher era, and 3) shifted towards European notions of social inclusion in the late 1990s (Phillipson and Biggs, 1998; Biggs and Powell, 2001). Each change has had implications on the public discourses that construct ageing.

In the 1950s, the goal of achieving security in old age was something that the population worked towards through the means of maintaining full employment and creating channels for secure retirement. However, these ideals were falling apart by the 1990s, with the removal of full employment goals and the deindexation[2] of pensions from wages that caused a loss in value. These factors were also supplemented with the increasing number of workers who were disinclined or reluctant to pay tax increases to support benefits for vulnerable

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[2] "Indexation is a technique to adjust income payments by means of a price index, in order to maintain the purchasing power of the public after inflation, while deindexation is the unwinding of indexation" (Wikipedia, 2016).

groups such as older people, and in so doing were breaking the 'intergenerational contract'[3] (Phillipson, 1998) of the pensions system.

Starting in the 1950s, the construction of an identity in retirement developed within society at large, and this was studied in the research literature. The new patterns of consumption developed by retired people in areas such as leisure and education were slowly becoming subjects of study in the 1980s. Middle age was continuously redefined to be a more youthful phase in life, during which time individuals are managing their consumption and life-style opportunities in order "to enable their retirement to be a progressive set of options and choices – a phase in which the individual is presented as still moving within the social space, still learning, [and] investing in cultural capital" (Featherstone, 1987, p.134). The services sector also started recognising the significance of the market for 50 plus year old individuals. The development of private sheltered housings, retirement magazines, and specialised holiday companies are a few examples of this recognition.

This changing vision of retirement was contributing toward the reconstruction of the identity of an older person. Whereas in 1950s, retirement was seen as an impairment to mental health, from 1980s onwards, it was increasingly considered to be a pathway to fulfilment, where people achieve those lifestyles that were not possible within the workplace (Phillipson, 1998). These views existed from the late 1960s until the 1980s. When concerns of the 1990s surrounding high unemployment rates and dependent populations started to arise, tensions developed in the social relationships between retired older people and the rest of the society. During the 1980s and 1990s, the expansion of a 'medical gaze'[4] could also be observed in policy debates concerned with shrinking public budgets and fears surrounding the dissolution of an intergenerational social contract, which was considered to be the foundation of the post-war welfare state (Biggs and Powell, 2001; Philipson, 1998).

Even though during the Thatcher and post-Thatcher years, the welfare state expenditures had grown, the scope of these spendings in relation to the old population was reduced. Between the mid-1970s and 1990s there were reductions in the amount of care facilities for older people, in bed capacities of hospitals, and in the number of acute beds, almost half of which were accounted for by older people (Phillipson, 1998). It has been documented that the privatisation of services once undertaken by the government, increasing class divisions in

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[3] Young and middle-aged population supporting older citizens.
[4] Medical gaze refers to "discourses, languages, and ways of seeing that shape the understanding of aging, and (…) increase the power of, the health professions" (Biggs and Powell, 2001, p.95).

access to services, and service fragmentation were factors contributing to the crisis in community care in the late twentieth century. Estes and Linkins (1997) refer to the separation between government and the services that the government funds with the term 'hollow state'. The hollow state typically contracts outs its provision to the private sector and keeps for itself the monitoring and inspection responsibilities. In the UK, there has been an increase in the overall private spending, and an increasing practice of hollow state since 1980s.

Both the institutions of the welfare state and of retirement contributed to the social construction of an emerging identity of old age. The welfare state itself offered a set of values for being an older person. But, with the removal of the foundations of retirement and welfare state, the meaning of old age was becoming obscure and less secure. This sort of change in the history of old age has had effects on the lives of older people. Social gerontology and the sociology of ageing have grown substantially since 1980s to study experiences and relationships in older people's lives. Prior to this, most accounts of ageing defined it as a universal, non-reversible and deleterious process of decline (Strehler, 1962). Gerontology has engaged with ageing in a way in which ageing has been either reified as a marker of individual achievement, or inserted within a social care or biomedical narrative wherein health or disability statuses are key criteria of judgment (Gilleard and Higgs, 2014).

The uncertainty about the provision of pensions, as a result of the dissolving institution of retirement, is one of the key elements in the destabilization of old age (Phillipson, 1998). The unravelling of retirement has historically also been focused on unravelling the financial arrangements associated with welfare state. These changes and reforms in the arrangements of the welfare state and social security have increasingly linked growing old to insecurities in later life. Emerging institutions of late modernity play a role in reshaping conceptions of growing old, in which 'alarmist views' of demographic change and ideological pressure upon older people were developed (Phillipson, 1998).

The frameworks that older people previously relied on for support were transforming; whereas the idea of the welfare state between the 1950s and 1970s embodied a sense of 'moral progress' with the centrality of older people (Leonard, 1997), the status of old age shifted in later decades. From the 1990s onwards, the vision of old age was interpreted via its financial justifications in an era of demographic constraints, causing conflict between generations and anxieties about the equitability of the welfare state.

2.1.3 Modernity, postmodernity, and old age

With the advent of modernity, the hospital became a specialised supporting structure for the medicalisation of older people as 'patients' (Katz, 1996). The medicalisation of hospitals and the production of medical knowledge were the products of the rise of western rationality, the logic that leads social and economic relationships in western societies to be arranged based on context and the debates surrounding old age. Distinct modern categories such as notions of the 'sick' and 'ill patient' arose out of classifications of this rationality (Katz, 1996; Powell and Biggs, 2004).

What is defined by Giddens (1991) as 'late modernity' is a move towards a postmodern society, in which traditional institutions and routines are abandoned. In postmodernity, people are responsible for negotiating their lifestyles and making their own choices about how they want to conduct their lives; mechanisms of self-identity both shape and are shaped by the institutions of modernity, where the self becomes a reflexive project with continuously revised narratives (Giddens, 1991). These mechanisms operate on flexibilities and choices by replacing the rigidity of traditional styles. Based on Beck's (1992) conceptualisation, social change comprises three stages: a) pre-modernity, b) simple (first) modernity, and c) reflexive (second) modernity / postmodernity[5].

Reflexive / second modernity or postmodernity (c) offers the key component of individualisation as its foundation of social change. It is individualisation that largely breaks down traditional structures, such as church and village communities that existed in pre-modernity (Lash, 1994). In simple or first modernity (b), these archaic structures give way to trade unions, welfare state, class as a structure etc. by being partly influenced by the individualisation process. Two important developments can be noted for the period that coincides with the dissolution of the first (simple) modernity and gives momentum to the society to take a *somatic turn* (Gilleard and Higgs, 2014). 1) One is the significance that the society started placing on the 'embodiment of identities', and 2) the next is the extension of 'embodied practices' that served to realise these embodied identities. These practices refer to the practices of self-care and self-expression mediated by society. Further

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[5] After Jean-François Lyotard published his Postmodern Condition, there has been an ongoing discussion on the notion of modernity. "In this debate one can find several descriptions for the current changes of modernity: modernity today means 'postmodernity' (Lyotard, 1984), 'multiple modernities'" (Eisenstadt, 2000), 'second or reflexive modernity' (Beck, Giddens & Lash, 1994) or 'liquid modernity' (Bauman, 2000)" (Bonacker, 2006, p.73).

individualisation sets agency free from these social structures of simple modernity (Lash, 1994). This means that reflexive modernity separates individuals from collective structures. Ecological concerns, the crisis of the nuclear family, and the changes in the class structures of today are the results of this individualisation. Even though the dissolution of boundaries in postmodernism (referred to as 'late modernity' by some authors) leads to a recognition of multiplicities in social life, it has been argued that postmodern thought makes the view in relation to ageing narrower because it primarily focuses on flexibilities and choices while dismissing the inequalities associated with class, gender, ethnic background, etc. – the elements that continue to shape older people's lives (Phillipson, 1998).

These developments raise issues for those institutions around which old age was constructed. For example, retirement policies were formed around "a society based on mass production and mass institutions" (Phillipson, 1998, p.46). As the changes to modernity create distinct types of ageing – with respect to social relationships after the termination of work – distinct types of identities in older age are produced. In what has been described as the 'modernisation of ageing' by Featherstone and Hepworth (1989) there are three key characteristics that make ageing different in the late modernity / postmodern period: 1) the frequent occurrence of youthful images of retirement; 2) the social construction of middle age (creating a part of life known as 'mid-life'); and 3) a period of extended mid-life that includes states of complex transitional states, personal growth and development.

Although these changes in the modernity of ageing generate positive images of ageing and older people, it is debateable whether these areas can be transgressed and afforded only by people with wealth (Featherstone and Hepworth, 1989). Despite the production of affirmative social images of old age, it is argued that most older people might face the negative sides of ageing due to the disorganised and relatively insecure institutions, such as retirement, that are being broken down with the structures of late modernity (Phillipson, 1998). Such debates concerning relationships between structures and old age created in literature somewhat pessimistic views of the ways in which old age has been classified through decades. It has been stated that "the label of 'older person' has diminished rather than enhanced the lives of those to whom it is applied (…) with the welfare state actually contributing rather less to the status of older people than its founders might reasonably have hoped" (Phillipson, 1998, p.123). The language that focused on old age in the post-war and late modernity periods contributed to generating an oppressive vision of ageing, by turning older people into a marginal group. By taking into account the positive consumerist views

of old age, Moody suggests that "the rise of the nursing homes industry does not empower older people to make decisions about their lives. Instead, the elderly become a new class of consumer subject to the expanding domination by professionals in [what Estes has termed] the 'Ageing Enterprise'. Instead of freedom, we have the 'colonization' of the life world in old age, and the last stage is emptied of any meaning beyond sheer biological survival" (Moody, 1992, p.115). These views have been widely studied in critical gerontology, the field that critically approaches old age studies and traditional gerontology.

The examination of knowledge about the body as a site of power relations coincides with the rise of issues related to identities in the second half of the 20th century. As the body became distinctly embodied in the late modernity, it became an arena for self-care and for practices of self-transformation (Foucault, 1994a). What Foucault termed the 'clinical gaze' constituted the foundation of new forms of power-knowledge relations by which normal/abnormal, illness/health were defined. New forms of power by the medical sciences arise when individuals are both subjects and objects of their own knowledge (Foucault, 1975). A Foucauldian perspective on the study of ageing can be captured by replacing the word 'sex/sexuality' with 'age' in his phrases on sexuality: "[Age] appeared as an extremely unstable pathological field: a surface of repercussion for other ailments, but also the focus of a specific nosography[6], that of instincts, tendencies, images, pleasure and conduct" (Foucault, 1980a, p.67; Katz, 1996, p.7). Katz uses another statement from The History of Sexuality (Foucault, 1980a), to indicate similarities between old age and sexuality: "[Age] is not the most intractable element in power relations, but rather one of those endowed with the greatest instrumentality: useful for the greatest number of manoeuvres and capable of serving as a point of support, as a linchpin, for the most varied strategies" (p.103; Katz, 1996, p.7).

The individualisation process that has occurred as part of late modernity is echoed in the shift away from the public provision of services. This inextricably affects the identity of older people, because growing old as a collective experience is transformed into an individual one in this process. Here, emphasis on ageing individuals rather than on the social responsibilities of an ageing society becomes primary; the understanding of the crisis of ageing is associated with "how individuals rather than societies handle the demands associated with social ageing" (Phillipson, 1998, p. 119). The institutional spaces occupied

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[6] The systematic description of diseases.

by older individuals have transformed as a result of developments in late modernity, which include the identities defined through institutions of welfare, retirement, and family. With the wave of economic anxieties and concerns about the welfare state in the 1990s, the view of old age involved a particular emphasis on dependence on these institutions. It was clear that the re-definitions of old age during the post-war welfare period could not escape the view of old people as a burden, as seen in the use of labels such as 'the elderly infirm', 'the aged', and 'the frail ambulant' (Cottam, 1954, p.7). This view has carried on into subsequent decades, in the form of institutional ageism, and it has contributed to turning older people into a specifically classified group again and again.

2.1.4 Gerontology in the study of ageing

Disciplines construct the dominant discourses and representations of reality as well as provide tools and techniques through which to know, study, calculate, train, punish, and liberate people. The emergence of gerontology as the disciplinary foundation of ageing studies has resulted in the erasure of certain social realities and pluralities. Gerontology, being a product of the western world, has problematised the old body rather than the social conditions of ageing, which in return has led to the dismissal of and failure in incorporating the policies and the experiences of other cultures. The distinct gerontological analyses in non-western countries, such as India (Cohen, 1992), were largely sidetracked through organisations, books, international assemblies. In this way, western narratives of gerontology have discounted non-western historical experience and practices (Katz, 1996).

With the rise of the critical gerontological approaches, the narrow scientific methods of mainstream gerontology theorisations were challenged. This was done by encouraging stronger ties with the human sciences, endorsing reflexive methodologies, promoting political engagement, and redefining the ageing process to be amorphous and heterogeneous (Katz, 1996; Baars, 1991). The criticality around the formulation of gerontological knowledges has helped to strengthen the critical connection among fields that utilise the theories of subjectivity, discourse, and disciplinarity, such as the theories of social studies of science, feminism, poststructuralism, semiotics, etc.

One significant social science debate around the utility of the Marxist theory in gerontology paved the path for scholars to develop a framework for the political economy of ageing in

the 1980s. The gerontological lens brought selected parts of Marxism together, and political economists started seeing older people as a structured body whose marginalisation was determined by the fluctuations occurring in the history of capitalism (Katz, 1996). Due its eclectic character, the political economy of ageing expanded rapidly to embrace other conceptual approaches, such as those of gender, race, and ethnicity. With this expansion, it abandoned the more rigid theoretical conceptualisations of Marxism for a more fragmented form of Marxist ideas. Particular attention to feminism, discourse, and micro-politics has been argued to be a key component of critical studies of ageing (Phillipson and Walker, 1987). These perspectives were given a new impetus through the identification of cultural studies, a new field emerging in the 1960s, which analysed ageing and older people in the contexts of cultural history, feminism, consumer culture, and discourses. Such analyses have enriched gerontological knowledge and given rigour to the soundness of problematisations, aims, and methodological choices in the field (Katz, 1996).

Starting in the 2000s, a theoretical current named "Foucauldian gerontology" has risen. Its aim has been to understand "how ageing is socially constructed by discourses used by professions and disciplines in order to control and regulate the experiences of older people and to legitimise powerful narratives afforded to age by such groups" (Powell and Biggs, 2003). The use of Foucault's narrative in gerontology offered a novel way to problematise knowledge systems and break the taken for granted assumptions about ageing. Even though there have only been a handful of studies utilising such methods, the aspect of 'historical investigation' has gradually enabled more scholars to use history as a way to diagnose current social conditions.

2.1.5 Problematisation of old age and older people as a new kind

Problematisation, as described in a Foucauldian approach, "signifies the disciplinary practices that transform a realm of human existence into a crisis of thought" (Katz, 1996, p.9). The problematisations in the gerontological field can be characterised to be of individual adjustment and of population ageing. In critical gerontology, Foucauldian approaches are used to study the medicalisation of the body wherein the aged body is transformed into a pathological subject, and the governmentality of the population, which looks at the discursive technologies that differentiate the aged population as a special kind.

This kind is mainly characterised in political discourses by their neediness (Katz, 1996). Additionally, Foucault's lens creates a shift in gerontology by repositioning the focus from how the history and the knowledge of gerontology has problematised old age to how the subjectification of old age has enabled the formation of this knowledge possible.

From Foucault's perspective, the study of the formation of gerontological knowledge within specific power/knowledge practices and subjectivities surpasses traditional histories of progress in official knowledge production. This view asserts that the apparatuses used in gerontological human sciences - such as: surveys, theories, texts, codes, models - are disciplinary techniques that compose the knowledge and the subjects of old age. The making of the aged body and the older population into the central focus of scientific knowledges and political practices has its origins in the period when age became a regulatory theme in family, schooling, work, and retirement. Existing discourses of old age are, therefore, products of the ways in which bodies and populations have been historically problematised through the regulation of age.

The postmodern life course, as depicted in the work of Featherstone and Hepworth (1989), blurred the traditional boundaries of chronology of life and integrated the periods of life that were segregated previously. This postmodern shift from universalism to fragmentation created the 'consumer culture' (Featherstone and Wernick, 1995; Powell and Biggs, 2004). Medical indices of decline were slowly substituted with the agelessness of the 'consumers' wherein age was no longer a chronological marker. As a new group of consumers – or "gold in grey" (Minkler, 1991) - older people are characterised as a homogenous, financially secure, powerful interest group. However, this discourse coexists with another grand narrative: the older population is seen to be the dependent burden on healthcare programs, welfare and a drain of society's resources.

The biomedical model that perceives ageing as a pathological problem ties ageing to those discourses of decline, abnormality, deterioration, and dependency (Phillipson, 1998; Powell and Biggs, 2003). These master narratives of consumer agelessness, and biological decline and dependency may seem to promote contradictory narratives, yet they are interrelated. "They are contradictory in their relation to notions of autonomy, independence, and dependency on others, yet linked through the importance of techniques for maintenance (…) via medicalized bodily control" (Biggs and Powell, 2001, p.95). Biggs (2001) argues that a shift in policy interest is occurring in the UK that replaces the narrative of decline in old age

with one that promotes active and successful ageing and anti-ageism. Anti-dependency is becoming a characteristic in these policies. This change is "an attempt to shape acceptable forms of ageing whilst encouraging older people to self-monitor their own success at conforming to the new paradigm" (Powell and Biggs, 2003) through the adoption of technologies that enable self-modification and self-scrutiny. This means that the rhetoric of burden and dependency in later life finds its way in the new rhetoric of anti-dependency.

Biggs and Powell (2001) argue that the focus on medicalised bodily control and adoption of consumer lifestyles has obscured a third grand discourse on ageing, which has been strong in Europe and the UK: the discourse that associates old age with social welfare. From the nineteenth century onwards, transformations that took place concerning social welfare were associated with moral panics about the family (Jones, 1983). Professionalization of social work developed in the nexus of public and private spaces and was seen as a benevolent solution to a major problem, namely: how can the state ensure the health of family members who are dependent by promoting it as natural to care for them in the family sphere, without direct intervention into families (Hirst, 1981)? This solution situated social work between the state and the individual families. While medicine drew heavily on technical knowledge, social work started drawing from the fields of psychoanalysis and the social sciences. Social work became a vehicle through which the attributes and qualities of individuals could be managed and improved. Its legitimacy was dependent upon its relationship with the welfare state, and soon social work became prominent in the development of social regulation techniques - which can be characterised as forms of surveillance, discipline, and normalisation (Foucault, 1977; Biggs and Powell, 2001).

Even though the size of the dependent population was forecasted to remain the same over five decades from the 1970s to 2020s (Patel, 1990; Biggs and Powell, 2001), the change in the future dependent population's composition (less children and more older people) was the source of the panic. With older people as the centre of social work's agenda, social work narratives started paralleling the medicalised rhetoric of burdensome decline in old age. Intervention by professionals was increasingly allowed when the conduct of an older person was believed to be a hazard to themselves or to those around them, and the caring profession drew from psychoanalytical discourses that pathologised older age. It constructed an image of older people as 'demanding' and 'always complaining' (Irvine, 1954), and thus the narrative of old age as burden and attached notions of dependency were reinforced through social workers who were the gatekeepers to the provision of social care (Biggs and Powell,

2001). This narrative of dependency was also increasingly articulated in state policies. Biggs and Powell argue that the arrival of managerialism in United Kingdom in the 1990s marked a shift in social welfare towards control and surveillance (Biggs and Powell, 2001; Powell and Biggs, 2000). They depict it as a result of the shift from the welfare state, which created top down social policies to manage dependent populations, to the *post-welfare* and *neoliberal* state, in which social regulations depend on bottom-up structures. Powell and Biggs reflect on this change: "central control has been replaced by local power; management systems are inspired by consumer and market models; there is a reliance on risk assessment; and an increase in the discourses of a 'politics of participation' and 'social inclusion'" (2000, p.4). The management of old age through the consolidation of managerial power gave special attention to reforms in welfare apparatuses. In the UK, these reforms were backed up by alarmist arguments based on demographics, which were imposed by the central government (Warnes, 1996; Powell and Biggs, 2000). Care managerialism was a move away from direct care toward assessment and monitoring on the basis of 'the old age problem'.

The aim of such reforms is to reduce the financial burden of age on the state and on the family through economic privatisation and through turning older people into active consumers, whose empowerment through "choice" (of services) is marked as an end. It has been stated that scientific dominance, supplemented with financial narratives, has been gradually growing in relation to the provision of care; a powerful and pervasive discourse of 'old people as consumers' has been formed through the models of care management (Powell and Biggs, 2000). At the local level in the UK, the shift to a managerial model in social services has been influential in challenging the dependency of the older population by promoting empowerment through choice, and through initiating new relationships, such as the partnerships between professional service providers and older people.

The mixed economy of welfare that was introduced through increasing managerialism in care highlights the incorporation of market forces into the planning and provision of services. It embodies a multitude of political agendas in a bid to control financial resources, improve services, change how local authorities work, establish new techniques for resource allocations, and reduce public provision of services, etc. Their idealised concepts of *choice* and *empowerment* for older people have been contested because the associated changes are argued to have widened the sphere of collective control and regulation (Powell and Biggs, 2000). In the same vein, the transformation of older people into consumers can lead collective concerns to be given a backseat in favour of individual transactions. That is

because such narratives of empowerment can transform into politically neutral and individual questions of *satisfaction* with products and services, rather than an encapsulation of collective accounts (Biggs and Powell, 2001; Estes and Linkins, 1997).

This means that managerial power can have an impact on the old age identities through care policies of the state, and the processes of social service institutions, mainly at local levels. Because managerialism primarily relies on risk assessments, this model results in the intensification of the inspecting gaze. Foucault argues that when individuals are taken as 'cases', they are "described, judged, measured, compared with others" so that they can "be trained or corrected, classified, normalised, excluded" (1977, p.191). 'Assessment' as a disciplinary technique aims to describe, judge, measure and compare older people with the use of norms and by "imposing new delimitations on them" (Foucault, 1977, p.184). This type of standardisation creates an individualising effect that promotes homogeneity in the identity of old age (Powell and Biggs, 2000) by "making it possible to measure gaps, to determine levels, to fix specialities and to render the differences useful by fitting them to one another" (Foucault, 1977, p.185).

2.1.6 Summary

This section reviews the construction of old age through the knowledge production of sciences and through the state's policies. The grand discourses that problematise old age are given particular emphasis. We can summarise these narratives in the following figure:
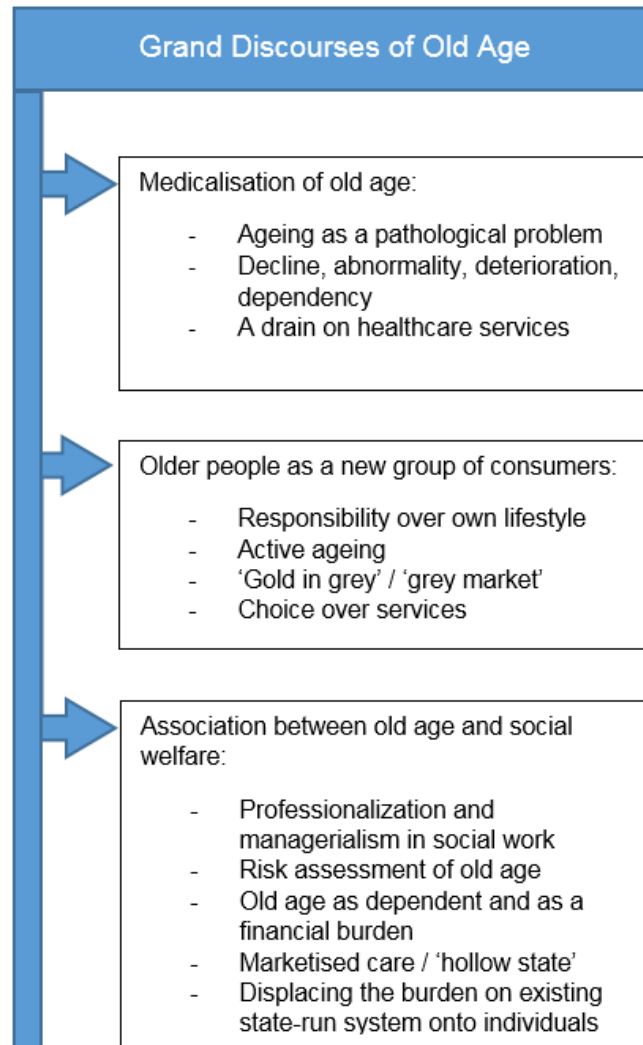
Figure 2.1 Grand discourses of old age

These grand narratives form the basis of the analysis to be undertaken in this thesis. The aim is to: 1) explore the enactments or alterations of the grand discourses of old age within the domain of telecare information systems, and 2) examine the effects that the grand discourses and other discourses of old age have on the identity of old age. In the next section, I will review research conducted on social care and telecare technologies in relation to old age. Because telecare technologies in the UK mainly target the ageing population, the studies of telecare explicitly or implicitly address the concerns of old age. Therefore, it is key for this thesis to maintain attention on old age and older people, and to always highlight the link(s) between the provision of telecare services in the UK and the identity of old age.

2.2 Telecare Technologies

2.2.1 An overview of telecare in United Kingdom

In the late 1990s, the UK government directed their initiatives toward developing wired communities in order to promote health and independence, modernising care services, and delivering value for money (Department of Health, 1998). With this idea, telecare services emerged in a network of information systems. While enabling older people to live safely and independently in their homes, telecare strategies were expected to be aligned with a wide range of health care, social care and housing-related government initiatives. After the recognition of telecare technologies in an information strategy white paper (NHS Executive - DOH, 1998), the government invested in extending the use of telecare technologies at a national level with the introduction of various initiatives.

In the UK, telecare has always been defined in relation to *community alarms*. Alarm systems have been available in the UK for over fifty years, and were originally designed for the use of older people (Miskelly, 2001). The first and second generation of community alarms have been designed for the purposes of risk management and security provision (Sixsmith and Sixsmith, 2008). First generation community alarm services were initially launched in sheltered housing to ensure the safety of people when wardens were off the premises. Community alarms were designed to offer a simple model of raising an alarm in a call centre or to alert the wardens with the push of a button or the pulling of a cord. Community alarm services widely spread over the country over the next decades; soon they were used as portable alarm units in individual homes. These systems evolved into the second generation systems in order to respond to problems that could not be recognised before. Identifying abnormal or unusual patterns in the everyday lives of older people became the motive behind this evolution that led to telecare. Telecare systems are comprised of: a) a 24-hour telecommunications link to control centres, b) records systems to monitor alerts and to log new data, c) environmental sensors (smoke, temperature, gas, etc.), d) passive sensors (bed pressure sensors, door opening sensors, etc.), and e) intelligent home unit devices to link the sensors together (Sixsmith and Sixsmith, 2008). These features of telecare have differentiated telecare services from the first-generation alarm services. They also have enabled higher volumes of data collection from the service users due to the increasing number of links with more devices and sensors. Even though community alarms and telecare

services coexist today, there has been a gradual shift towards telecare systems. The following figures show the basic structure of the community alarm and the telecare transmission/escalation cycle (Figures 2.2 and 2.3), as well as the various telecare sensors that can be linked to the home unit device which acts as a call and speaker unit (Figure 2.4).
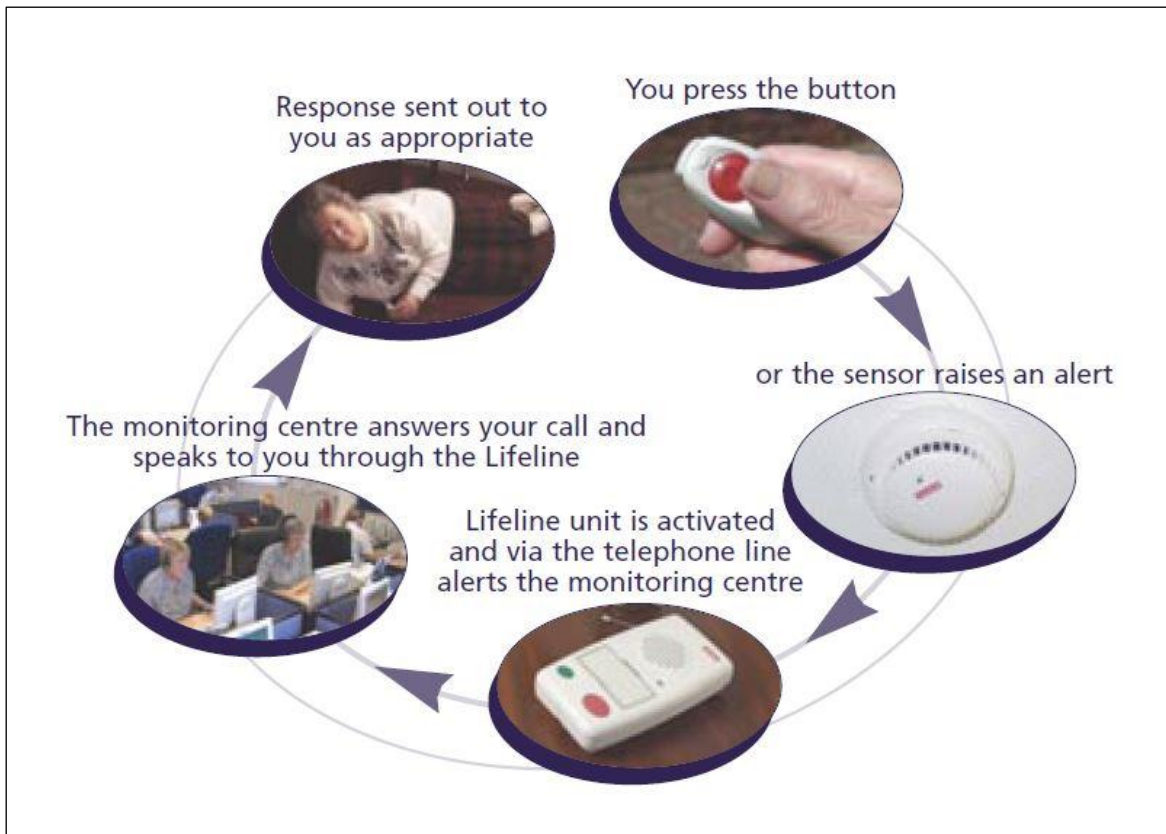
Figure 2.2 A simple representation of the telecare response cycle (Figure taken from South Derbyshire District Council, 2008). The Lifeline Unit is the name given to the home unit device supplied by the tele-healthcare solutions company Tunstall – one of the major suppliers of telecare technologies in various districts and boroughs of the UK (Tunstall UK, 2013).
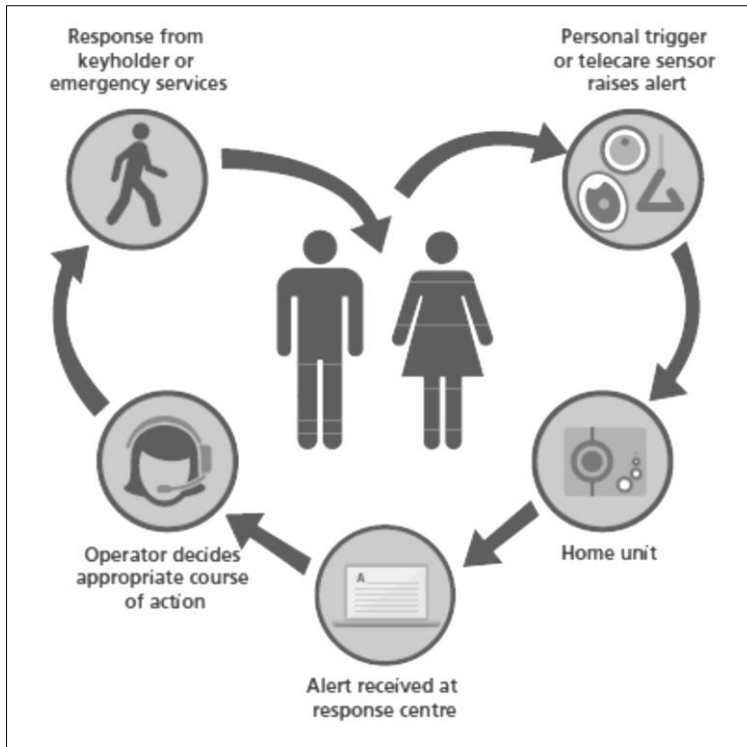
Figure 2.3 How telecare works (NHS England, 2012)

Figure 2.4 Telecare sensors wheel showing available primary sensors in Surrey (Figure taken from Surrey Telecare, 2011)

The logical shift for community alarm services in the UK has been towards more proactive forms of telecare. This includes passive alarms and sensors that offer a monitoring service and alerts the call centre automatically without the need to press a button when hazards arise (Curry et al., 2002). Improvements in monitoring systems and advancements in the development of various smart sensors and intelligent home units have been the main changes to the community alarm services over the past decade. Additionally, the subject of falls prevention has become an increasingly important area of research in the UK. As a major cause of injury in old age, falls are an expense to the healthcare system, an estimated £2.3 billion per year. Based on a National Institute for Health and Care Excellence report, people aged 65 and older have the highest risk of falling; 30% of people older than 65, and half of people older than 80 fall at least once a year in England (NICE, 2013a). The phenomenon of falling at an older age is also argued to be an indicator of larger issues that involve social support, independent living, health policy, and housing, and is often a threshold that marks the life between independent housing and hospitalisation (Katz, 2010). Preventive and monitoring-based solutions have therefore gained momentum, in line with increasing anxieties over independence and assistance and with advancements in technologies.

Telecare refers to living independently in one's own home with the application and help of ICTs. As well as assisting in the delivery of services, telecare maintains the security and safety of older people in their houses. As Loader et al. (2008) notes, there is a distinction between the two types of telecare systems: 1) one is designed for assessment and information sharing, and 2) the other is designed for risk management. However, the terminology that the Department of Health uses in their report (Department of Health, 2009) shows that the above distinctions are grouped under two separate titles: Risk management services as *telecare*; information sharing and assessment services as *telehealth*. This is how both services are described (Department of Health, 2009): the Telehealth systems allow individuals with chronic conditions such as obstructive pulmonary disease (COPD), diabetes, heart failure or a mixture of these conditions to exchange data (e.g. blood levels) with healthcare professionals using a set of products such as blood pressure monitors, glucometers and weighing scales. On the other hand, telecare systems focus on people who are in constant need for health and social care services for support and are "facing difficulties carrying their current burden of responsibilities" (Department of Health, 2009). Telecare technologies are a combination of wireless sensors and alarms that track the changes in an individual's activities and raise a call in the event of emergencies, such as a fire or a fall.

Personal alarms, temperature sensors, gas/water detectors, and bed occupancy sensors are only a few examples of the products that are used as a part of telecare services. The most important distinguishing factor between the two services is the matter of information systems: the centralised and continuously monitored systems of telecare consist of more refined forms of information storage, retrieval, and filtering, and link to several actors responsible for care at once.

It can be said that telehealth is less synchronised compared to telecare, since urgent risk management or immediate attention from control centres is not sought through these services. In the UK, telehealth activities have included extending medical care into the homes of people via remote monitoring and consultations via telecommunications links (Fisk, 2003; McCreadie, 2010); however, telehealth initiatives have not been taken up by local councils at a wide level. The scope of telehealth services has been limited to smartphone applications that monitor blood sugar levels, which have been tested on NHS patients with diabetes (BBC News, 2015).

Telecare initiatives in search for more cost-effective ways of caring for older people and people with complex long term conditions (Sanders et al., 2012) have become a bigger part of the Department of Health's agenda in passing years. These services are more relied upon to bring major implications for health and social care services by transforming the order of care and extending the reach of healthcare outside of consulting rooms and hospitals (Oudshoorn, 2011). There have been various pilot projects at local councils across the country – including notable projects in London, Surrey, Durham, and a few others – that were conducted by the social services of the related councils. In 2004, the Government introduced the Preventative Technology Grant whose aim was to initiate a change in the delivery of health and social care and housing services by investing a greater budget into telecare technologies. The grant was designed to support vulnerable older people by keeping them safe in their homes and out of hospitals (Audit Commission, 2004).

In 2008, the Department of Health (DOH) introduced their 2-year Whole Systems Demonstrators (WSD) Trial Programme, which - with over 6,000 participants selected in three UK sites (National Archives, 2010) - was to be the largest randomised control trial (RCT) of these services in the world. The aim of the trial was to demonstrate the potential benefits of integrated care as supported by telecare and telehealth services. In the UK, older people make up a very high proportion of the population who are in the need of social care

services, and many participants of the WSD project were selected from this demographic group as the primary recipients of telecare services.

After the WSD trial took place in the three UK sites, the headline findings for the telehealth programme that were published in 2011 (Department of Health, 2011a) demonstrated that there were reductions observed in mortality rates, emergency admissions, and bed days. However, based on the same success criteria, Steventon et al. (2013) who were involved in the evaluation process, reported that the telecare trial did not cause any major changes in cost, mortality rates, or hospital admissions. Henderson et al. state that evidence on the impact of telecare to support independent living is sparse, and that data on cost-effectiveness is especially limited (2014). Their study demonstrated that telecare was not a cost-effective addition to usual care (Henderson et al., 2014). Overall, WSD results were established to be 'complex' and not compelling by various scholars (Cartwright et al., 2013; E-Health Insider, 2012; Henderson et al., 2013; Henderson et al., 2014; Roehr, 2013; Sanders et al., 2012).

In 2013, the Department of Health started planning their second telecare and telehealth initiative, 3millionlives (3ML), in collaboration with the industry, in order to increase the recognition and visibility of these services in England, and thus to "alleviate pressure on long term NHS costs" as well to "improve people's quality of life through better self-care in the home setting" (3ML, 2013). The involvement of a multiplicity of stakeholders in the government's 3ML and similar initiatives implies the "crossing of organizational boundaries, changing structures and shifts in time, as well as roles and potentials for ICTs" (Klecun-Dabrowska and Cornford, 2000).

The provision and use of telecare services are not only limited to large-scale projects like WSD and 3ML, even though these projects have enabled telecare and telehealth technologies to acquire more recognition in communities "against a background of ambition and potential" (Klecun-Dabrowska and Cornford, 2002). Telecare services are provided to older people at their local boroughs and districts. According to the Community Care Statistics reports on social care activity of the councils in England for the years 2009-2014, the average number of community care service users who received equipment (i.e. community alarms and other independent living devices) is approximately 430,000/year; this data is no longer available for the years after 2014 (Health and Social Care Information Centre, 2015; 2014; 2013; 2012; 2011; 2010). In 2012, approximately 1.7 million people were using telecare

services in UK, yet it was estimated than more than 4 million people were potential telecare users in England alone (Carers UK, 2012).

2.2.2 Different approaches in social care and telecare research

Various studies that research social care and telecare have been conducted in diverse fields and disciplines in the UK. This section reviews the literature regarding different types of research conducted in social care and telecare topics, with occasional emphasis on epistemological differences. Relevant studies conducted in the IS field have also been included here. At the end of the chapter, a summary table will be provided that lists the research fields, aims, theory selections, methodology preferences, and conclusions of the studies in this section.

Social care, as well as health care, has a significant role to play in the formation of the general discourse of the state's relationship with its citizens (Lim, 2012); numerous social care programmes and refinements are mediated by the government. Social care research has been gaining momentum in the UK in the past decade, mainly on the back of the white papers published by the Department of Health (2007; 2009; 2010a; 2010b). A majority of the publications and white papers focus on old age care because older people are the largest user group of social care, and they receive the largest proportion of expenditure (Lim, 2012).

Aveyard's book *Doing a Literature Review in Health and Social Care* (2007; 2014) provides a thorough guide on literature review as a research methodology that can be applied to social care practices in the UK. Such publications have become significant because of the growing importance of evidence-based practice, which makes the literature reviews more relevant. Literature reviews offer the convenience and effectiveness of bringing together all the research about a particular topic; this prevents the practitioners from getting a misleading picture based on a few separate reports on the same topic (Aveyard, 2014). Another notable source, named *The Social Care Guidance Manual* (2013b), was published by the public body National Institute for Health and Care Excellence (NICE). It provides information on

methodologies such as systematic review[7] and meta-analysis[8] in order to be employed and interpreted by policy makers, researchers and practitioners. Systematic reviews and meta-analyses have been regularly used in health and social care research in the UK. Greenhalgh's et al.'s (2007) systematic literature review of diffusion of innovations; Parker et al.'s (2010) meta-review of interventions to support carers; Rosner et al.'s (2010) meta-analysis of interventions for bereaved children and adolescents; Weightman et al.'s (2012) systematic review and meta-analysis of social inequality and infant health in the UK; Davies et al.'s (2013) systematic review on the effect of telecare interventions on informal carers; Crocker et al.'s (2018) systematic review and meta-analysis of the impact of patient and public involvement on enrolment and retention in clinical trials; and Baxter et al.'s (2018) systematic review of the effects of UK's integrated care are only several examples.

Although systematic reviews and meta-analyses have been dominant in health and social care research in the UK, there are various studies that focused on sociological and political perspectives. For example, the alignment of socio-political objectives of the government with economic, social and personal conduct has been highlighted in the economics literature in the context of technologies and programmes of government, and political rationalities. By *technologies of government*, Miller and Rose (2008, p.32) refer to "the actual mechanisms through which the authorities of various sorts have sought to shape, normalize and instrumentalise the conduct, thought, decisions and aspirations of others". In the accounting field, Lim (2012) critically examines the government's programmes of old age care and the technologies implemented (both accounting and care technologies). The analysis shows a lack of harmony between the two groups of technologies, and Lim concludes that the 'personalisation' and 'active citizenship' claims do not necessarily lead to greater choice or control over older people's own care (2012).

Telecare lies in the nexus of several fields, ranging from medicine to economics, from sociology to technological studies. The range of traditions, trends and tensions between and within the fields that study healthcare (Williams, 2003) are inextricably linked to the epistemological presuppositions upon which they are founded. This wide range of underlying epistemologies compels a researcher to consider different theoretical

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[7] "A systematic review answers a defined research question by collecting and summarising all empirical evidence that fits pre-specified eligibility criteria" (CCACE, 2011).
[8] "A meta-analysis is the use of statistical methods to summarise the results of these studies" (CCACE, 2011).

perspectives in the analytical examination of telecare. Positivism and interpretivism are the two main overarching strands of thought that have been explicitly or implicitly informing health related research. The 'hard' data (the separation of facts from values) offered by positivist approaches mimic a natural science model for the social sciences by committing to instrumental knowledge and the observable empirical world (Williams, 2003). Interpretivist approaches distinguish between the methods appropriate for natural and social sciences, and thereby place a paramount importance on meaning making through construction processes. The strengths of these approaches can be visible in certain fields, but not so much in others. For example, in the context of technology studies, a positivist approach may offer a more technologically determinist view of the world in which technology is the cause of changes; an interpretivist approach may put its sole focus on the social shaping of the technologies without acknowledging its material agency (Hutchby, 2001).

With notable limitations in the positivist or interpretivist approaches taken in various fields, the epistemological approach of critical realism has been put forward as a generative alternative. Defined as "critical in content and realist in tone" (Williams, 2003, p.44), critical realism offers an ontologically stratified and epistemologically diverse view of the world which distances itself both from the sole focus on the actor level or on the collective level (Alvesson and Sköldberg, 2009a). Instead, it offers the notion of stratified reality in which there exist deep structures and generative (unobservable) mechanisms that are independent of the mind. Nevertheless, critical realism is arguably as open to critique as the longer-established legacies of thinking due to the ambiguity of definitions of mechanisms and structures and the grand claims that it strives to derive upon these concepts. These different flavours of study of knowledge influence the researchers' choice of level of analysis, causations, agencies and realities when constructing their research outline. Meaning making, discourse, observable/unobservable realities, and the agency of humans and artefacts are long debated notions that have been conceptualised differently with implicit or explicit guidance of these diverse epistemologies and ontologies.

Evidence-based medicine (EBM), grounded in a positivist perspective, is considered to be equivalent to 'good medicine', and as such, it is still the dominant system of decision making in healthcare since its initiation in the 1990s (Walsh and Gillett, 2011). The problematisation of evidence in EBM is intended to increase the objectivity of the practices, but it could also

obfuscate "the subjective elements that inescapably enter all forms of human inquiry" (Goldenberg, 2006, p.2626). In most studies conducted in the field of health and social care services, there has been a dominant evidence-based agenda in which quantifiable measures of care are calculated by scholars using economic evaluation models.

The most favoured method of EBM is to use evidence-based randomised control trials (RCTs), which are often referred to as the gold standard of clinical trials. In the RCTs conducted for telecare research, the two main forms of care, 1) traditional care with carer/family support versus 2) telecare, are compared based on the pre-set measures such as: a) *quality adjusted life year* (QALY), b) the proportion of individuals admitted to hospitals, c) the fall rates occurring in different contexts, and d) the cost-effectiveness of telecare services. QALY is used in cost-utility analysis of interventions, which has its roots in health economics. With similar measures like QALY, health economists seek to assess the value for money of a medical intervention; for instance, the interventions with a lower *cost to QALY saved ratio* are valued more highly than higher ratios. Cost-utility analysis is derived from the archetypal cost-benefit analysis tool. Cost-benefit analysis has been a standard answer to policy problems in the past; it posits universal laws that are claimed to be *value-free* (Goldenberg, 2006). Similar studies that quantify certain aspects of interventions tend to embody an objectivist epistemology that tends to reduce reality into variables in a positivistic and utilitarian manner.

Two factors that have contributed to the quality of research in many disciplines - 1) neutrality and 2) impartiality - have encouraged researchers to prioritise more positivist theoretical perspectives in a bid for 'scientific conclusions' (Shapiro and Schroeder, 2008). In fact, pragmatic approaches in social sciences are common due to various agendas involved in the research process. Funding bodies can have power in distorting research conducted on certain health/social care interventions, and the research might give "scientifically inappropriate but politically expedient" results (Greenhalgh, 2012, p.1). The growing relations between the private sector and the government, and the push for greater integration between health and social care services within the landscape of financial constraints are powerful sources of coercive pressure which influence telecare/telehealth research that has been carried out in the UK (Dickinson et al., 2012).

The pressure exerted by authorities to validate certain programmes tends to push forward the need for more quantitative studies with more 'obvious' results. Randomised control trials in

particular are seen as the means to this end. The RCT studies conducted in the UK based on the Whole System Demonstrator (WSD) Programme (Cartwright et al., 2013; Henderson et al., 2013; 2014; Hirani et al., 2013; Steventon et al., 2012; Steventon et al., 2013) make use of different theories in data collection, analysis, and interpretations, yet they embody similar comparison methods. Henderson et al.'s (2013; 2014), Steventon et al.'s (2012; 2013), and Hirani et al.'s (2013) studies have a strong focus on quantifiable variables of health and wellbeing. These include: a) measures of mortality rates, b) admission to hospitals, c) quality of life outcomes, and d) cost-effectiveness measures. The authors use generically defined, well-established measures of economic theories to carry out their research and contribute to the medical body of knowledge, as well as to policy making. For example, the Department of Health cited a couple of these publications in order to legitimise their next big project: 3millionlives (3ML, 2013) that aims to reach 3 million people in the UK who are in need of telecare and telehealth services. The government has been criticised for cherry-picking (Greenhalgh, 2012) the results of the studies, pre-dominantly due to differences in telehealth and telecare interventions: whereas the telehealth trial revealed 'positive' findings (based on the pre-determined criteria), the results of the telecare trial were more controversial.

The social production of telecare evidence is highly debated as "the problem of 'evidence' is not a local one": the international representation of evidence-base has become a key focus of investment with normative expectations attached to such interventions (Williams et al., 2003, p.39). The overemphasis on evaluating hardware and the uncritical assumption that telecare systems are beneficial reflect only a stratum of the telecare work done. The focus on quantitative evidence that has been created through statistical procedures needs to be understood in its wider social context, because these quantitative assessments of effectiveness, efficacy, and utility are disciplined through qualitative judgements that are fundamentally political; the objectivity that is aimed for through such measures is a result of a political construction process in the first place. This implies that evaluation (quantitative or qualitative) is never self-evident due to the construction process of new mappings and meanings in the oscillating political landscape. In the outcome-centric evaluation models, the parameters may carry uncritical assumptions about the evaluation. A study by Darking et al. (2014) proposes that a practice-centred approach to evaluation in care can complement and even offer advantages over outcome-centric approaches. Practice-based models focus on how the care practices of actors change (or do not change) when new technologies are introduced in the setting. Complementing or replacing outcome-based evaluation models in

care with "participative, capability-building evaluation methodologies" has been shown to create those conditions for patients and practitioners to realise the potential of health innovation programmes and care technologies (Darking et al., 2014, p.1).

In addition to the dominant majority of quantitative studies, various qualitative studies of telecare technologies have been undertaken in the past decade. These have benefited from overarching ethnographic, hermeneutic, and exploratory methodologies, as well as various middle-range theories and frameworks. Some of these middle range theories include: the normalisation process theory (May et al., 2011), various ethical frameworks (Eccles, 2010; Eccles, 2013; Mort, 2011), and information systems theories such as the organising vision (Klecun-Dabrowska and Cornford, 2002) and user acceptance/resistance theories (van Offenbeek et al., 2012; Cook et al., 2016; 2018).

Various scholars have identified barriers to participation and adoption of telecare services, and explored the effects of perceptions on the identity formation of the individuals (Mort et al., 2007; Sanders et al., 2012). These studies have contributed to an understanding of expectations, concerns and values of the individuals in their evolving cycle of care. This is because studies that utilise economic models are argued to consider the technology users as 'bodies' whose health has been quantified, rather than an individual with a voice who expressed themselves (Mort et al., 2007). In a study by Yusif et al. (2016), the researchers look at the barriers to adoption to assistive technologies, such as telecare, and conclude that the 'stigmatising symbolism' contained within the technologies may prevent older people from adopting them. Cook et al. (2018) explore the factors that impact the decision to use telecare services, from the perspective of family care-givers. They conclude that family care-givers are positive towards telecare and have an influential role in the adoption and retention of these technologies. The intended effects gained through telecare, such as increased feeling of safety, are dependent on users' individual needs, abilities and contexts; therefore "telecare works differently in different situations, and thus leads to different outcomes" (Berge, 2017, p.1). If telecare systems are not adjusted to match the contextual needs of telecare users, this can pose as a barrier to participation and adoption.

Not all qualitative studies in health and social care focus on individuals. While political and industrial pressure might cause repercussions for research and narrow down its focus (or magnify certain parts of the phenomenon), many explorative, ethnographic and hermeneutic qualitative studies attempt to see how this power is exercised over an industry, academia or

over the wider society in general. The discussion of political influences and power relations is present in a substantial number of qualitative studies. This is especially the case for research on areas of health and social care services in which reductionist and patriarchal forms of medical practice are still dominant and less amenable to evolve at the same pace as other sectors/industries. The vision for health and social care technologies embrace a wider community of stakeholders with distinct perspectives; these include: professionals, patients, carers, government, third sector organisations, sponsors and researchers, as opposed to other industries where the technologies embrace the values of smaller groups, such as: designers, vendors, and suppliers only (Greenhalgh et al., 2012).

Having in-depth interviews with managers, practitioners, suppliers and health/social care professionals is a central method for ethnographic or exploratory case studies that adopt organisational analysis frameworks (Hendy et al., 2012; May et al., 2005). This is important in order to understand the innovation process which does not only include the telecare users, but also other actors who have vested interests in these technologies. Studying multiple stakeholder groups in the same context reveals the links between policy and practice, and helps identify which areas need to be strengthened in the relationships. At the level of the design and delivery of telecare services, scholars have observed a struggle with uncertainties for different actors involved in telecare provision (May et al., 2011). It has been suggested that introducing a negotiation process could make the operationalisation of telecare services less arduous in practice because a lack of communication with service users poses a barrier to the widespread uptake and integration of these services (May et al., 2011).

Hermeneutic exploration, which is sometimes confusingly referred to as phenomenology in healthcare related fields (Dowling, 2004), has been an invaluable perspective in looking at the widely accepted meanings of a certain innovation. It has been defined as a theory of the interpretation of meaning by various scholars, and as a methodology with certain philosophical underpinnings by others (Butler, 1998). The hermeneutics approach can offer the researcher a lens through which to look at policy papers by actively using the knowledge of the organisational context that the researcher has accumulated through their interactions. It provides an understanding of how a certain innovation is imagined and endowed with meaning, and how the discourses present in policies may influence the future of the innovation (Klecun-Dabrowska and Cornford, 2000). This approach can be an additional tool used along with various middle-range theories, such as the organising vision of the information systems. The interpretation, legitimation and mobilisation activities that present

themselves in the emergence of an information systems innovation may provide insight into the visibility of innovation. In their research, Klecun-Dabrowska and Cornford studied the visibility of telehealth services, and concluded that these technologies were anticipated to be more visible due to the intensification of interpretation and legitimisation processes, and by rendering telehealth's compellingness less tentative than before (Klecun-Dabrowska and Cornford, 2002). The critical study by Klecun-Dabrowska states that telehealth will always have several ambiguous meanings due to competing rationalities, and reflects that transformation of these technologies will be a difficult process of negotiating between conflicting interests (2003).

The explanatory *acceptance/resistance frameworks* of IS – such as the Technology Acceptance Model (TAM) by Davis, 1989; the Interaction Model by Markus, 1983; the Equity-Implementation Model by Joshi, 1991; the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al, 2003; the model of resistance by Lapointe and Rivard, 2005 – could benefit the telecare research in understanding the changing dynamics of the two 'ambivalent behaviours' of use and resistance (van Offenbeek et al., 2012). Van Offenbeek et al.'s telecare study (2012) provides a description of telecare user behaviour in which *use* and *resistance* are not taken as rigid opposites of a continuum: they point to a state of fluidity, which involves multi-dimensional (cultural, social and political) elements. Cook et al.'s (2016) qualitative study of users and 'non-users' (those who have withdrawn/declined) explores the decision-making process to adopt and engage with telehealth and telecare services. Using the UTAUT theory, they find out that the referrers have an influential role in decision-making, and emphasise that the key barriers to adoption of telecare services can be overcome with a customised approach for each individual, in which collaboration and dialogue between the referrers, users, and healthcare providers are essential in improving user experience and the rates of engagement (Cook et al., 2016).

In the work of Mort et al., the EFORTT framework (Ethical frameworks for telecare technologies for older people at home) puts forward the idea of participative citizens' panels that "facilitate a more horizontal approach to research" and "create spaces in which participants can not only learn about a specific topic, but also question, and express doubts, agreement and differences" (2011, p.9). The aim of these panels has been mainly to explore the views of older people who are the prominent users of telecare technologies. This exploratory study of Mort et al. makes use of ethnographic and *deliberative* methodologies, where the deliberative implies a hybrid between consultation and research that involves the

public in decision-making (2011). It is concluded that: a) all actors who revolve around telecare services actively shape/adapt technologies and visions into their daily lives; and b) telecare should not be assumed to be a universal solution but conceptualised as a situated one instead. This micro-level analysis of the telecare phenomenon points the researchers' focus toward the formation of appropriate ethical frameworks for future development and practice.

Generating a common vocabulary through which ideas can be articulated, and "establishing cross-sector learning communities in which different points of departure, priorities and accountabilities are made explicit and acknowledged" (Greenhalgh et al., 2012, p.1) can help to build progress towards a common vision. The macro-level study of Greenhalgh et al. (2012) – which is based on the organising vision theory and the qualitative discourse analysis of policy documents, academic papers, industry reports and local protocols concerned with telecare/telehealth technologies – concludes that a single vision would not suffice to capture the complexity and diversity of this innovation in the UK. The vision of these technologies is more compelling than it was in the past (Klecun-Dabrowska and Cornford, 2002), though more inter-sectoral and interdisciplinary dialogue is recommended in order to: a) achieve a 'zone of agreement' (Allen, 2009) between different stakeholder groups, and b) make technologies more embedded and sustainable where possible (Greenhalgh et al., 2012).

To approach the process of sociotechnical change with a common vocabulary, Petrakaki et al.'s study (2010) argues that it would be reductionist to only study the static pre- and post-implementation impacts of healthcare technologies (the focal points which seem to dominate the healthcare studies). To address the complex process of change, they propose an approach that opposes essentialism and the dualisms of 'before' and 'after', and rejects the assumption that "the technology is out there, ready to be adopted, configured, implemented, and evaluated" (Petrakaki, 2010, p.29). Gibson et al. (2018) argue that telecare technologies are dependent upon an often ordinary yet complex set of socially situated arrangements, and that technology uptake is subject to the 'little arrangements' that form the practice of care. This is contingent upon the ability of users and carers to act as 'bricoleurs' by engaging creatively with the technologies. The concept of *bricolage* stands for "the habitual and practical knowledge of devices built up over many years and preserved within both memories and bodily habits; as such some of these abilities can be retained well into a person's illness" (Gibson et al., 2018, p.13). It is important to highlight that future telecare service redesign

could benefit from placing bricolage and personalisation at their core, by creating a shift away from standardised technology services, in order to reflect everyday telecare use in practice.

2.2.3 Sociological and Foucauldian approaches in the research of ageing and care technologies

There are various studies that utilise sociological and philosophical lenses to study ageing and care technologies. Most of the studies presented here are particularly influenced by Foucault's school of thought, and reflect on issues around governmentality, control, surveillance, and ethics. These studies encapsulate some important concepts, which are to be explicated in the following Conceptual Framework chapter.

The government's dominant and official narrative in social services has been shifting towards the use of words such as 'personalisation' and 'putting people first' (Lim, 2012). Carr defines personalisation as "starting with the individual as a person with strengths and preferences, (…) [with the idea] that people can be responsible for themselves and can make their own decisions about what they require, but that they should also have information and support to enable them to do so" (Carr, 2008, p.3). The vocabulary of personalisation, as built throughout the discourse of personalisation, has been widening to include *personal choice* and *control* as important catchwords. Various policy makers, non-governmental groups and policy implementers are involved in the construction of a framework which aims for an older person to be turned into an empowered individual who is responsible for certain tasks that have been previously recognised as a responsibility of other bodies, or have not been recognised as a responsibility at all. This is referred to as 'responsibilization' in the governmentality literature (Wakefield and Fleming, 2009; Lim, 2012).

Sorell and Draper's research (2012) studies the debate on whether telecare devices are evidence of a 'surveillance society' or a 'surveillance state' that is developing in the UK. They argue that it is not the intrusiveness on private life or the undesirable paternalism of the telecare services that causes this charge about its Orwellian nature, but that the danger lies where telecare leads to further isolation for the service users. They see it as problematic if these technologies are taken up for the sole purpose of decreasing healthcare spending, and argue that this problem is linked with the eroding welfare state (Sorell and Draper, 2012).

There are ways that can more readily address the privacy and independence concerns of telecare users; however, the issues around personal isolation can be more difficult to address. The authors suggest that the notion of independence can be further discussed on the back of policies that support telecare as a complementary service, rather than a replacement of the care professionals found in the social network of older people (Sorell and Draper, 2012).

It has also been stated that telecare technologies "are first introduced in seemingly benign ways" (Guta et al., 2012) and then become the standard by their general deployment. Telecare technologies can cause dangers to those vulnerable people whose "health status locates them at the intersections of medicine, public health, and the law" (Guta et al., 2012), such as to those who are living with HIV and individuals with mental illnesses. As the governmental spending on telecare services increase, some concerns are raised about the concept of internalised surveillance through fear becoming a reality. The treatment adherence can quickly become an aspect of the services by reporting on those who "fail" to adhere to the government-imposed treatments.

In this way, the freedom to choose one's own surveillance (chosen versus imposed surveillance), as suggested in Sorell and Draper's paper (2012), becomes a 'freedom' that is under question (Guta et al. (2012). The technologies that are made acceptable through their productive capacities can, at the same time, become dangerous for those whose identities are stigmatised. Moreover, the freedom to choose, by itself, is stated to be a technique of governmentality that makes the actors accept responsibilities in the form of rational choices (Guta et al., 2012). With a lens of Foucauldian scepticism, Guta et al. conclude that telecare technologies might be viewed warily or ambivalently, even deemed to be dangerous due to how the techniques of surveillance will apply to these technologies in the future. Even if certain important needs are met and gaps are filled through their widespread adoption, there is a chance that particular individuals would be targeted more than others.

For an ethical standpoint regarding the future of telecare, Schermer's study on telecare and self-management asks the question: "compliance or concordance?" (2009, p.690). She identifies two factors that point to a strict enforcement of compliance. First, advancement in technologies will enable more rigorous and pervasive monitoring of health-related behaviours through which the compliance to medically advised lifestyles is monitored, promoted and enforced. It will become difficult for service users and patients to deviate from regimens, ignore medical advice or be non-compliant without being noticed. Second, is an

argument that comes from a 'principle of justice'; "Because the society shares the medical costs, patients have a duty to do everything in their power to reduce these costs, and therefore they should be compliant" (Schermer, 2009, p.690). The normative level of compliance is promoted as a moral good, meaning that people should have a responsibility to live as healthily as possible; otherwise it would be seen as unfair to other people.

Schermer argues that the future use of telecare systems in such compliance-promoting ways can create a Big Brother management, in which telecare systems enforce an authoritarian health regime that is legitimised by the morality around distributive justice (Schermer, 2009). To change such a paradigm, it is important to recognise that awareness by telecare developers and medical professionals about the normative ideas of empowerment, concordance, compliance, and self-management plays a role. These normative ideas are embedded in the functionalities of telecare and can be restrictive. Schermer states that creation of more collaborative forms of self-management can empower telecare users' own viewpoint, and also raise awareness of professionals (2009).

Several Foucauldian gerontological arguments claim that medical power should be regarded as a 'dangerous' extension of power and surveillance that spreads into the lives of older people (Katz 1996; Biggs and Powell, 1999; Powell and Biggs 2000; Biggs and Powell, 2001). Powell and Biggs reflect that the increasingly medicalised view of old age is linked with the professional specialisation in bio-medicine, through domination of older people by medical experts (Powell and Biggs, 2000; 2004). Through the use of a Foucauldian narrative, they explore three areas shaped by the self's own consciousness and by medical experts to critically examine the relationship between ageing and self-care. It is concluded that, with the technologies involved in the maintenance of good health, the use of counselling narratives, and bodily enhancement in old age, the existing discourses on the ageing self are overcome or are destabilised (Powell and Biggs, 2004).

The dominance of biomedicine and care technologies creates a dominant narrative of self-responsibility that posits humans as responsible selves (Rose, N., 2001) who look after their own health and social care needs. Powell and Biggs make a critique of the notion 'healthy old age' which is the "result of prudent self-care (…) that one has lived a 'moral life' that has not only its own rewards, but relieves others of any obligation to care" (Powell and Biggs, 2004, p.20). They continue with the opposite side of this ideal and echo that "becoming unhealthy approximates being undeserving. One is unwell because one is

unhealthy, and one is unhealthy because the proper steps of self-care had not been taken in the past" (ibid, p.20). The notion of self-responsibility therefore can become dangerous when passed through the image of health because it becomes a covert form of moral judgement, on which decisions are based.

On the subject of being responsible for choices, ethnographer Annemarie Mol argues that good care has little to do with the *logic of choice*, in which patients make individual choices that concern their wellbeing; instead, good care relies on *logic of care* that grows out of collaboration to attune knowledge and technologies to complex bodies and lives (Mol, 2008). Contrary to the *logic of choice,* which gives numerous choices in technologies and treatment plans that individuals can choose from for their own health, Mol argues that the simplistic relationship between a technology choice and its direct consequences is not very representative of the real-world logic of care. She argues that caring is a way of "tinkering with bodies, technologies, knowledge and with people" (Mol, 2008, p.12), and that creating more opportunities for people to make choices about their care will not improve health and social care.

2.2.4 Summary

Section 2.2 provided an introductory literature overview of telecare information systems in the UK, and presented a review of studies conducted in the nexus of telecare, social care, and ageing, to investigate diverse approaches, theories, and methods. The following table summarises those studies that have been reviewed in this chapter. A few points will be highlighted at the end of this chapter regarding the influence of the reviewed studies and where the aim of this thesis lies.

Study	Research Field	Research Aim	Theory Selection	Methods and Analysis	Conclusions and Contributions
Van Offenbeek et al., 2012	Information Systems	To propose and evaluate a framework that offers a new connection between acceptance and resistance of telecare technologies	Acceptance and resistance theories, review of theories	Meta-analysis of IS studies which use acceptance and resistance theories	Ambivalent behaviours such as 'use and resistance' are not rigid binaries and may change over time. The IS adoption literature can benefit from linking the two research streams.
Klecun-Dabrowska and Cornford, 2002	Information Systems	To explore the meanings telehealth acquires, and to understand how compelling this vision is	Organising vision	- Interviews with IT managers, health and social care professionals, researchers -Secondary data analysis of local and national policy and strategy documents	Without results from larger-scale projects based on RCT, many stakeholders will not be persuaded of the benefits of telehealth. But the visibility of telehealth is higher than before.
May et al., 2011	Health Services Research	To identify factors that constrain the implementation and integration of telecare systems	Normalization process theory	- Interviews with key informants, task-groups, and workshops - Framework analysis of qualitative data	Problems of adoption are not caused by slow and uneven implementation. Incomplete understanding of the role of telecare systems and its context contributes to these problems.

Darking et al., 2014	- Health Services Research - Social Policy	To evaluate a regional programme of Electronic Patient Records and telemedicine, with a practice-centred evaluation model of health information systems	Action learning	Questionnaires, system usage evaluations, and interviews with participants that include clinicians, technology specialists, and patients	Evaluating complex programmes of technology-enabled service innovations with the practice-centred and participative approach can have advantages over outcome-centric evaluations, in terms of contributions to patient care
Berge, 2017	- Care Research - Applied Social Science	To provide a nuanced approach to telecare evaluations by looking at various contextual elements	Realist evaluation	Sequential interviews	The study shows how and why telecare works differently in different situations, which leads to different outcomes. It is important for telecare systems to be correctly adjusted to match the user's contextual needs, which enables the user to feel safe and remain in their home.
Yusif et al., 2016	Medical Informatics	To review the barriers to the adoption of assistive technologies by older individuals and to find areas of concern	Evidence-base theories (implicitly stated)	4-step systematic review	The "gerontechnologies" that specifically target older adults contain stigmatising symbolism which prevents some people from adopting them.
Cook et al., 2016	- Health Services Research - Information Systems - Psychology	To explore the factors that influence the decision to adopt and engage with telehealth and telecare services	The unified theory of acceptance and use of technology (UTAUT)	- Semi-structured interviews - Framework analysis of qualitative data	The referrers of telehealth and telecare services are influential in the adoption and retention rates by users. Improving the culture between the users, referrers, GPs and healthcare providers is essential to work collaboratively, by employing an individually tailored approach.

Cook et al., 2018	- Health Services Research - Information Systems - Psychology	To explore factors that impact the decision to use telecare, from the perspective of family care-givers of older people	A variation of the technology acceptance model (implicitly stated)	- Semi-structured interviews - Framework analysis of qualitative data	Family care-givers and telecare users had positive experiences with telecare devices which were viewed as functional, easy to use and useful. Family care-givers have an influential role in the adoption and retention of telecare technologies.
Eccles, 2010	Gerontology	To evaluate whether there are suitable ethical frameworks in care technology policy implementation	Ethics theories	Policy analysis	Ethical engagement in research with older people around ICT needs to be revised.
Lim, 2012	Accounting	To describe the mobilization of technologies relating to personalisation of care	Critical theory (implicitly stated)	Discourse analysis of white papers and publications	A better understanding of the alignment/dis-alignment between elderly care programmes and technologies of government is provided.
Klecun-Dabrowska and Cornford, 2000	Information Systems	To explore how ICTs in health acquires meanings through a policy process	Hermeneutics as a theoretical perspective	Hermeneutic exploration of four UK health policy documents	Telehealth is not a given that can be taken for granted in the policy debate. It is an evolving concept with changing meanings over time.
Klecun-Dabrowska, 2003	- Information Systems - Business Research	To offer an alternative perspective on telehealth, that focuses on different rationalities and conflicting legitimisation processes	Critical theory, Information society theories	A three-layer approach is adopted: policy (macro layer), local strategies (meso layer), and individual projects (micro layer)	There are competing rationalities influencing telehealth, and conflicting knowledge claims that legitimise telehealth.

Petrakaki et al. 2010	Information Systems	To explore a conceptual approach to the complex process of sociotechnical change	Sociotechnical theory	Critical overview of sociotechnical studies in healthcare	For a better understanding of change, we need to engage the actors who are experiencing change, capture people's practices of doing, and their perceptions of technology through time, rather than just before and after implementation.
Eccles, 2013	Applied Social Sciences	To explore the ethical complexities raised by the use of telecare monitoring and surveillance equipment	Critical theory (implicitly stated)	Interviews with practitioners who assess for, and interact with, telecare technologies	Telecare practice is uneven in the way it addresses complexities. The ways in which technologies are discussed and utilised should be better understood.
Mort, 2011	Sociology	To develop an empirical ethics of care technologies at a European level	Ethics theories, social theories, gender theories (implicitly stated)	- Ethnographic and deliberative methodologies - In-depth qualitative research methods	The team develops a grounded, critical ethical framework to assist European policymaking about care systems.
Cartwright et al., 2013	Medicine	To assess the effect of telehealth on health-related quality of life, anxiety, and depressive symptoms in patients with long term conditions	Psychology theories, evidence-base theories (implicitly stated)	Pragmatic, cluster randomised trial nested within the WSD trial	Telehealth in the WSD trial did not improve quality of life or psychological outcomes for patients with chronic obstructive pulmonary disease, diabetes, or heart failure.
Henderson et al., 2013	Medicine	To examine the cost effectiveness of telehealth in addition to standard support, compared with standard support	Economic evaluation theories (implicitly stated)	- Pragmatic, cluster randomised controlled trial nested within the WSD trial - Cost-utility analysis	Telehealth is not a cost-effective addition to standard support and treatment.

Henderson et al., 2014	Medicine	To examine the costs and cost-effectiveness of telecare	Economic evaluation theories (implicitly stated)	- Pragmatic cluster-randomised controlled trial with nested economic evaluation	Telecare is not a cost-effective addition to usual care.
Hirani et al., 2013	Health Sciences	To examine the effect of telecare on health-related quality of life, anxiety and depressive symptoms	Psychology theories, evidence-based theories (implicitly stated)	- Pragmatic, cluster randomised controlled trial nested within the WSD trial - Participant-reported questionnaires	Telecare may afford relative benefits on some psychological and health-related quality of life outcomes compared to users who only receive usual care.
Steventon et al., 2012	Medicine	To assess the effect of telehealth interventions on the use of secondary healthcare and mortality	Economic theories, evidence-base theories (implicitly stated)	Pragmatic, multisite, cluster randomised trial comparing telehealth with usual care	Telehealth in the WSD trial leads to lower mortality and emergency admission rates.
Steventon et al., 2013	Health Sciences	To assess the impact of telecare on the use of social and health care	Economic theories, evidence-base theories (implicitly stated)	Cluster randomised trial comparing telecare with usual care	Telecare in the WSD trial did not lead to significant reductions in service use.

Sanders et al., 2012	Health Services Research	To explore barriers to participation and adoption of telehealth and telecare	Acceptance and resistance theories (implicitly stated)	- Qualitative study nested within the WSD trial - Interviews with people who declined or withdrew - Observations of home visits	The disruption of interventions and withdrawals go beyond more common expectations about privacy and dislike of technology.
Mort et al., 2007	Science and Technology Studies	To examine discourses about how telehealth and telecare technologies assume certain forms of patients	Social identity theory (implicitly stated), actor network theory	- Secondary data analysis of ethnographic studies - Pilot study: Citizen panel discussions	Citizens, clinicians, patients, designers, and developers can all be seen as co-constructors of the technologies. Local improvisations play an important role at the level of practice.
Greenhalgh et al., 2012	Medicine	To explore how different stakeholders understand telehealth and telecare technologies	Argumentation theory, political economy theories (implicitly stated)	Discourse analysis of publications and field notes	Different stakeholders hold different assumptions, values and world views that can hinder the implementation of technologies. More inter-stakeholder dialogue needed for compellingness.
Hendy et al., 2012	Health Services Research	To investigate organisational factors influencing the implementation challenges of telehealth and telecare	Sense-making theory (implicitly stated)	- Qualitative case studies - Interviews, observations and document review - Organisational analysis	Simultaneously gathering evidence from large-scale RCTs and the implementation of remote care services can create confusion. Local incentives must be taken into account from the very beginning of implementation.

Dickinson et al., 2012	Health Services Research	To review academic policy and practice literatures in order to establish the existing state of knowledge of third sector in delivering social care in England	Critical theory (implicitly stated), systematic review of theories	- Document analysis - Complementary interviews with individuals from academia, policy and practice	There is a lack of robust research unfolding the role of third sector organisations in delivering social care services. Comparative study of third sector delivery is needed to inform policy and practice.
Gibson et al., 2018	- Ageing Studies - Science and Technology Studies	To explore how people with dementia and their carers use telecare to manage care	Critical theory (implicit), bricolage framework	- Semi-structured interviews - Thematic analysis - Constant comparative method	The concept of bricolage is found to be important in showing how telecare use is situated within the everyday routines. Instead of standardised telecare solutions, individualised provision of telecare should be prioritised.
Powell and Biggs, 2004	- Critical Gerontology - Sociology	To provide a critical assessment of ageing, and to examine the relationship between ageing and self-care in three domains.	Foucault's theoretical toolbox, critical theory	- Critical overview - Meta-analysis	It shows how subjectivity can be explained as a core concept in understanding ageing and bio-medicine.
Sorell and Draper, 2012	- Bioethics - Sociology	To address the critique that telecare technologies are an extension of the "surveillance society"	A form of ethical theory (implicit)	- Meta-analysis	They refute the Orwellian nature of telecare, and argue that the dangers of telecare can be found in the uptake of these technologies to decrease health care spending, which complements the ongoing erosion of the welfare state.

Study	Research Field	Research Aim	Theory Selection	Methods and Analysis	Conclusions and Contributions
Guta et al., 2012	- Bioethics - Sociology	To make a critique of Sorell and Draper's (2012) analysis on telecare	Critical theory (implicit), Foucauldian hermeneutics of suspicion (explicitly stated)	Critical analysis	They find it redundant to reject the "surveillance society". Instead they question the ways personal "freedom" is evoked, and how choosing services serves as a technique of government that requires actors to make rational choices and accept responsibility to improve themselves.
Schermer, 2009	Medical Ethics	To identify different types of self-management, and to investigate compliance logics embedded in the telecare systems.	A form of normative ethics theory (implicit)	- Critical overview - Meta-analysis	Telecare promotes forms of self-management in which compliance to medical knowledge is central. A plea and recommendations are put forward to develop concordant and collaborative telecare systems in order to empower the user.
Mol, 2008	Medical Sociology	To contrast the two dominant logics of dealing with disease and care	A new social constructionist theory is presented	Ethnographic methods	Patient choice by itself does not improve care. Technologies and other human actors play comparably important roles as the individual who is the focus of the care.
Study	**Research Field**	**Research Aim**	**Theory Selection**	**Methods and Analysis**	**Conclusions and Contributions**

Table 2.1 A summary of ageing and telecare related studies investigated in this chapter

As is evident from the literature review, telecare research has a wide scope of application in several fields and disciplines, including information systems. Being informed by the theories and approaches given in this chapter is invaluable, because with a thorough review of various frameworks, this thesis can be placed in a domain with the most appropriate framework. I am informed by the social care research approaches in IS research. I also reflect that the use of a sociological approach, alongside the knowledge of information systems, can assist me while I explore the formation of old age discourses, and sustaining and/or altering of grand discourses of old age in relation to telecare technologies.

IS research has been historically adopting sociological approaches. With the assumption that the function of a sociological approach is to reveal social problems and to study the functioning of society, it is applicable for this thesis to adopt such a lens. In particular, the knowledge of old age studies, and the frameworks of Michel Foucault will be predominantly taken as guidelines in order to answer the research question that has been constructed on the back of this literature review:

- How is the identity of old age constituted in relation to telecare technologies?

The aim in this thesis is, therefore, to link the forms of old age construction and its main narratives with telecare technologies, and identify how telecare contributes to this construction process. These narratives are based on normalised forms of certain ways of being, doing, and speaking (Foucault, 1969), and certain normalised forms of knowledge and truth. This thesis acts on the assumption that these forms of knowledge and *ways of being* are historically variable; it therefore delves into the exploration and explanation of how a specific version of old age identity is constituted in the presence of technologies.

2.3 Conclusion

As reviewed in this chapter, the creation of 'old age' as a separate group in the UK appeared as a product of the late nineteenth century. Old age became recognised as a social issue in the early 1900s, one that needed attention with new social policies. It was mainly constructed around poverty and dependency until the post-war welfare state era in the 1940s. Along with the establishment of the NHS, the modern government took the central responsibility over

older people through developing a moral framework. The construction of ageing went on to gain more nuances over time.

The idea of 'active retirement' emerged, and, in the 1980s, themes of youthful retirement, fulfilment in life, and active lifestyles became a part of the understanding of ageing. Thus, with the 'modernisation of ageing', old age in late modernity took on a different meaning. But in the 1990s, when anxieties around the equitability of the welfare state arose due to a series of financial constraints, old age started to be seen as an economic burden on the state. These uncertainties destabilised 'old age' by transforming the institutions - such as: welfare, retirement, and family - through which older people's identities have been defined. Because the crisis of old age is increasingly associated with the ways in which individuals - rather than society as a whole - handle the demands of ageing, the 'moral framework' of the state has been shifting to a completely new domain.

This domain has been defined by the principles of postmodernity, in which traditional structures -such as: trade unions, class, and the welfare state - are being abandoned. People are increasingly put into the position of holding responsibility for negotiating their lifestyles and making their own choices about how they want to conduct their lives. Linked to this, increasing levels of separation between government and the services that the government funds has created a so-called 'hollow state'[9] (Estes and Linkins, 1997), which has been observed since the late 1980s. The period during which the private spending in health and social care services has increased in the UK coincides with the period of growing societal anxieties about the future of the provision of services by the state.

The making of the aged body and the older population into the central focus of scientific knowledges and political practices has its origins in the period during which age became a regulatory theme in family, schooling, work, and retirement. The existing discourses of old age are, therefore, products of the ways bodies and populations have been historically problematised through the regulation of age. These narratives can be subsumed under 3 overarching categories:

1) The medicalisation of old age
2) Older people as new group of consumers
3) The association between old age and social welfare

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[9] The hollow state typically contracts outs its provision to private sector, and keeps for itself the monitoring and inspection responsibilities (Estes and Linkins, 1997).

As aforementioned, the provision of telecare services is predominantly for the use of older people. Due to the challenges presented by ageing populations and the increasing demand on health and social care services, technological care has seen a global rise lately. In the past decade, the UK Government has been consistently advocating the widespread adoption of telecare services, and the technology industry has been presenting new technological innovations to enhance wellbeing and health as the population ages. On the back of these changes, telecare information systems occupy a greater part of public social care policies, and thus they create a new domain in which the old age narratives can find their place. This is because information systems form an organised system through which the collection, storage, organisation and communication of information takes place. Older people are the primary actors of telecare information systems who interact with technologies and other telecare actors; and are also processed, interpreted, classified, and organised within this system.

The practices of legitimising telecare services and the process of handling information about older people via telecare technologies entail the knowledge of what is known about old age and ageing. This knowledge is embedded in policies, institutional practices and functionalities of telecare, in various ways. Thus, this thesis aims to investigate the enactments and redefinitions of this knowledge (in the form of discourses of old age) in relation to telecare services. The following chapter describes those frameworks through which this investigation can be achieved. The research question, as specified in this chapter - "How is the identity of old age constituted in relation to telecare technologies?" - will be refined into further questions in the light of conceptualisations and analytical models.

3 Conceptual Framework

Based on the previous chapter's review of the problematisations of old age, narratives of ageing, and of the relations between technologies and an older population, we can devise a general research question for this thesis:

- How is the identity of old age constituted in relation to telecare technologies?

In this chapter, concepts and theories will be discussed that can help with the investigation of this question. These analytical frameworks include: critical theory, discourse analysis, genealogical method, and modes of objectification, with the use of such concepts as: discourse, governmentality, identity, and power/knowledge. As is evident in the Literature Review chapter, narratives of old age have been reviewed from a predominantly constructionist perspective by utilising the knowledge of critical gerontology, old age studies, and sociological perspectives. Michel Foucault's concepts and frameworks have been influential in most of this work due to the use of techniques for historical and genealogical investigation, power and discourse analysis, and the formation of identities.

The aim of this thesis is to investigate: a) how professionals study and classify individuals in the context of telecare, b) how governments and institutions discipline, divide, and regulate old age groups, and c) how the identity of old age is constituted in ways that are linked with those techniques. These scientific classifications and dividing practices constitute the modes of objectification, which will be explicated in detail in this chapter. Using the modes of objectification constructs a significant premise for this thesis, because as well as describing the modes of objectifying the old age subjects, they reveal the power relations, which bring forward discussions of power/knowledge and governmentality. In this chapter, a combination of approaches will be discussed that can help with the investigation of the objectives above. These theoretical models and frameworks include: a) critical theory, with examples given from information systems research; b) Foucauldian Discourse Analysis; c) selected guidelines from primarily Fairclough's Critical Discourse Analysis approach; and d) other frameworks and concepts of Foucault.

The chapter is divided into four parts. 1) Critical theory's history, approaches and contributions will be revealed. 2) The benefits of employing the techniques of discourse analysis will be discussed. 3) Relevant Foucauldian frameworks and concepts will be elaborated on, with a specific focus on modes of objectification. 4) The primary concepts

and constructs will be brought together. In the final section, relationships between the concepts will be laid out, and the main research question will be divided into a new set of refined research questions in the light of the frameworks and concepts identified.

3.1 Critical Theory

3.1.1 History of Critical Theory

Social scientists associated with the Frankfurt School - such as: Habermas, Adorno, Fromm, Marcuse, and Horkheimer - are the originators of the tradition of critical theory. Sometimes referred to as 'critical hermeneutics', critical theory has been characterised as having an emancipatory interest in knowledge (Alvesson and Sköldberg, 2009). The ways in which researchers view social phenomena are open-ended in their historical contexts. Critical theory subjects the ideological and political dimensions of social research, such as asymmetries of power and interests, to deeper analysis and reflection.

With the emergence of the Frankfurt School in the 1930s, positivism and traditional views on science were criticised, and a substantial amount of work was put forward to develop social theories that were politically significant. The Frankfurt School drew attention to contradictions inherent in the functioning of the society, its institutions and modes of thought. Among this, the restrictions of modern capitalist society was regarded as a major research subject. The School took Marx, Freud, Weber, Kant, and Hegel as sources of inspiration, and was powerfully influenced by the political environment of Germany and the Soviet Union with the rise of Nazism and Stalinism in 1930s. Research with psychological depth became more visible. Adorno's and Fromm's work reflected upon the effects of authoritarian upbringing in society, which creates authoritarian relations in the socialisation process and furthers people's compliance with self-subordination (Alvesson and Sköldberg, 2009).

Along with critiquing totalitarian societies, the proponents of this critical theory took commercialisation, mass society, and marketing - guided by technological rationality - as dangers to freedom of thought. Critical theorists reflected that the continuous transformation of people into objects of manipulation makes the subjects vulnerable to control; individuals are in danger of turning into passive, uncritical objects, adapted to mass production and

consumption (Alvesson and Sköldberg, 2009). Despite taking a cultural pessimist view of society, social scientists of the Frankfurt School such as Habermas, Marcuse, and Fromm produced work that contains positive, optimistic elements: their critical works study the possibilities for emancipation from repressive authorities, institutions, and ideologies. Especially after the student rebellion of 1968 in Europe, the works of critical theory - including An Essay on Liberation by Marcuse (1969) - focused on the mobilisation of social forces that enable people to question the dominant social order. This paved the way for marginalised groups who would resist standardisation in later decades; feminists, environmentalists, and, more recently, anti-consumerists, have been the main opposition forces who challenge the dominant logic.

The technocratic ideology of politics uses science and technology administered by experts to solve societal problems (Habermas, 1971). These issues are problematised because the narrow positivist views of science that are utilised in these problem-solving endeavours tend to neglect ethical and political reflections on societal realities. The ways in which experts continuously confront every fragmented part of individuals' lives characterises the human existence with impersonal forces, and can have a destructive effect on the formation of personality. Along with this line of thought, Habermas - unlike members of the early Frankfurt School - states that the legitimation of ideas, traditions, and norms is not only an effect of a dominant ideology; active legitimation happens through the use of argument.

The early critical theory of the Frankfurt School and Habermas's subsequent theory of communication converge at the point of interest in emancipation. The tradition of the theory perceives the modern individual to be a manipulated, passive, and objectified unit within the dominance of rationality. Yet it simultaneously depicts the modern individual as having the potential to be autonomous, critical, and self-reflexive. The critiques of technocracy and positivism put forward by several critical theorists are varied in perspective and approach (e.g. Adorno and Horkheimer's polemical style is no equivalent of Habermas's systematisations). Nevertheless, they all share an interest in emancipation, democratisation, and autonomy (Alvesson and Sköldberg, 2009).

3.1.2 Critical application of Critical Theory

In its potential role as a research position, critical theory is open about targets of critique; it does not solely focus on grand targets such as capitalism, patriarchy, consumerism, and so on. Just as revolutionary groups who successfully reject authorities still have the potential to adopt the same authority models, researchers can often unwittingly reinforce existing patterns by using the taken-for-granted concepts that dominate the status quo in sciences (thereby perpetuating the status quo). With the aim to avoid this occurrence, the problem-identifying aspect of critical theory focuses on counteracting unconscious re-enactments and reinforcements of society's existing modes of thinking. In empirical research, the emancipatory purpose of critical theory is limited; a researcher would therefore be wise to be more concerned with and critically reflective of the means through which they may prevent the work produced from contributing to dominance than how to overcome the dominance directly (Alvesson and Sköldberg, 2009).

Possible actions that a critical and reflective researcher can take for this are: a) to consider the historical and social contexts of phenomena, and b) to interpret empirical work with a social constructionist stance. For example, instead of asking questions such as, 'Why don't workers work harder than they do?', 'How can we maximise our profits?', or 'How can we achieve our goals?', the independent critical researcher can respectively ask instead: 'Why do workers work as hard as they do?', 'Why does anyone go in for maximising their profit?', 'What drives the operations behind the goals?' (Alvesson and Sköldberg, 2009). In this way, the researcher can aim to avoid adopting a one-sided or narrow approach to the problem of productivity, and to avoid being under the influence of dominant institutions.

Critical interpretations work in a dialectic way; in other words, alternatives to the dominant misleading, distorted, and/or one-sided interpretations of certain issues are realised in the presence of a tension between the established existing order and its meaningful contrasts. The constant use of negations is an important element of critical research. However, while making the familiar foreign (problematising what appears to be natural and seeing things as arbitrary), the critical researcher faces the risk of ending up with a utopian alternative for a future reality. This is rarely the goal of research. Most critical work to date has encompassed the elements of *insight* (revealing the less obvious meanings of a social reality), and *critique* (problematising these meanings by pointing at the material arrangements). But it has not

always encompassed the third element, *transformative re-definition* (undermining the above meanings, and encouraging alternative constructions of reality) (Alvesson and Deetz, 2000).

The highly theoretical stance that critical theory adopts makes its application in empirical research difficult; the methods as to how to handle the interpretive process are left unclear in critical research (Denzin, 1994). The realism behind the concept of undistorted communication is called into question when a post-modernist perspective guides the research. Poststructuralist forms of discourse analysis and Foucauldian genealogy form the basis for the wider application of criticality in research. These theories and techniques will be explicated in Sections 3.2 and 3.3.

3.1.3 Critical Theory in information systems

The various approaches of critical research in social sciences – critical accounting, critical ethnography, critical management studies, critical operational research etc. – are all subject to the connotations within their disciplines (Mingers, 2000); however, they share the commonality of being dependent on the Frankfurt School's critical theory (Howcroft and Trauth, 2004). As well as being influenced by the school of thought of the Frankfurt School, critical research in the above disciplines have been historically guided by Marxist, feminist, Foucauldian, and Heideggerian lenses, as well as the works of Latour (Actor Network Theory), Bourdieu, and other postmodernist scholars.

The study of the role of technology in sociology has been minimal and never a central theme before the rise of the Frankfurt School (Richardson et al., 2006). In Weberian, Marxist and Parsonian notions, technology was noted to have an instrumental role to attain an economic end. With the emergence of Frankfurt School ideas, technology became a site for the critique of modernity, and was viewed as a tool that is used by the state to subjugate masses. As it has been argued, the tightly coupled links that build networks between people and things and allow systemisation in modern societies give rise to technical disciplines and hierarchical formations (Feenberg, 2003). The study of control and power are of particular interest here. In later decades of the 20th century, several sociologists - including Habermas, Bourdieu, and Foucault - developed a more nuanced critique of control, power and domination, which also expanded the scope of the lens through which the societal role of technology could be studied.

Critical research in the domain of information systems has been adopted by a growing number of scholars over the past three decades. Creating alternatives to managerialist and functionalist approaches to IS as a reactionary ambition was key in the development of critical approaches (Richardson et al., 2006). Critical theories of technology take technologies to be not separate from society, hence from specific political or social systems, and see information systems as historically evolving in alignment with other aspects of society (Feenberg, 2003). The application of critical theory in information systems asserts an approach which uses the theories that do not solely follow the traditions of the Frankfurt School (Klecun, 2004); the main examples of these theories include: Foucault's genealogy, Derrida's poststructuralist deconstruction, postmodernist interdisciplinary discourse of Lyotard, the social constructivist concepts of Latour, Callon and Law, and 'late modernity' sociology, such as the work of Giddens (Avgerou, 2000).

3.1.3.1 Changing paradigms in IS Research towards Critical IS

This section includes a discussion on the emergent thread of critical research in information systems, in which the previously discussed Frankfurt School tradition - in particular, the Habermasian approach – has had a dominant effect. Formerly, the subject of information systems development (ISD) was studied with a positivist lens wherein the system itself is the 'icon/embodiment of rationality' that supports managerial practices (Howcroft and Trauth, 2004). Interpretive research emerged as an alternative to positivism in the IS field in the 1980-90s with several streams/frameworks (Avgerou, 2000; Klecun, 2004). Then, in their seminal piece, Orlikowski and Baroudi (1991) shed light on the scarcity of critical IS research. From this point onwards (towards the 2000s) the IS community has observed an upsurge in critical research (Howcroft and Trauth, 2005). We will now explore this development in greater detail.

Gradually, starting in 1990s, IS research saw a shift from the technical to the social, and likewise from measurement-oriented methods to meaning-oriented methods (Pozzebon, 2004). The most appropriate method for conducting IS empirical research was stated to be the in-depth case study (Walsham, 1993). The interpretation of actors, and the social construction process of information systems by these actors, became the foci of interpretive IS research, in which the inherent meaningfulness of the social world is emphasised

(Mingers, 2004). Several streams of interpretive studies started unpacking the black box of the ICT artefact during this period, which was largely neglected by technological determinists, and also by social constructivists (Richardson et al., 2006). The sociotechnical perspective and approach – which focused on material and social constituents of information systems and their interrelations - gained increasing popularity in this field.

However, there were still some vital social points being neglected in IS research. For example, even though the ETHICS (Mumford, 1995) and Soft Systems Methodology (Checkland and Scholes, 1990) approaches (both interpretive approaches) take user participation to be integral, they force the dichotomy of good versus bad systems. Interpretivism, like positivism, relies on a regulation theory of a society (Burrell and Morgan 1979), and neglects some aspects of social context - such as: relations of power, dominance of certain interests, regulation and legitimisation of social meanings. Even though interpretive research often recognises societal influences, the methods used within interpretive research may prove to be inadequate to question these influences due to a lack of problematisation of political behaviours, and a lack of attitudes towards the ICTs (Avgerou and McGrath, 2005).

At this stage, it is also worthwhile to claim that the reflexivity of the researcher is as important an element as the choice of research methodology in studying the political problematisations of the world. The rhetoric of interpretivist research versus positivist research that has long dominated information systems journals poses the danger of promoting "unhelpful schisms among scholars" (Weber, 2004); being critical also invites IS scholars to reflect on and revisit some views on positivism and interpretivism that may no longer be useful to evaluate research.

With the emergence of critical research, the aforementioned limitations of the IS field's long-established traditions and methods of positivist and interpretivist research started to be overcome. In theoretical terms, this corresponded to the rejection of a unitary model of organisations and systems development, and the creation of contextual awareness to analyse the relations of power. Before the issue was raised in Orlikowski and Baroudi's paper in 1991, critical studies did not exist in the four major outlets of IS (Walsham, 2005), namely: 1) Communications of the ACM, 2) MISQ, 3) Management Science, and 4) ICIS. Orlikowski and Baroudi identified four deficiencies in interpretive IS research, with critical points that studies did not: 1) examine the conditions prior to meanings; 2) look at the unintended

consequences of actions; 3) take society's structural conflicts as a focus; or 4) offer explanations for the historical changes through which the current social order has been set (Orlikowski and Baroudi, 1991).

The need for criticality essentially stems from the asymmetry in the world with respect to the power to act, wealth, and access to resources (Walsham, 2005). Critical research in IS gained new momentum, with research attending to themes of power, domination, conflict, contradictions, and the hidden mechanisms and structures that engender domination (Cecez-Kecmanovic, 2005). This called for researchers with critical approaches to downplay potential interpretations of particular issues/conflicts in the world, and produce interpretations and a critique based on their particular cause, among which environmentalism, feminism, and development economics can be seen as a few of the leading foundations (McGrath, 2005).

The socio-technical approach that was developed in the late 1970s falls under the 'social democratic view' (McGrath, 2005), which supports the ideal of human action and these ideals being integrated into the design of systems through objective assessment of the environment. This approach focused on working life in a democratic industrial society rather than on the transformation of society. The socio-technical design was abandoned in the commercial world due to changes in economics legislations, labour rights, etc.; however, its ideal of objectivity and rationality was quickly absorbed into the managerialist discourse within the IS.

Organisational culture theorists, Smircich and Calas, argued in the late 1980s that the interpretivist approaches in organisational culture research, which were born out of opposition to mainstream theories, had then been absorbed into the managerialist discourse (Smircich and Calas, 1987; McGrath, 2005). Opposition came from scholars who adopted a more reflexive and critical post-modernist stance within organizational culture. McGrath (2005) argues that IS might have followed a similar timeline, and suggests that there are several stances that were adopted and several shifts that took place within these views.

The second type of shift happened in research with an 'emancipatory view'[10]. This view's main significance lies in its criticality towards the status quo as a means to transform society for the better. Habermas' work was seen as the most promising in critical information

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[10] The next section looks at the emancipatory principle in more depth.

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systems research in the 1980s, and was compared to the work of his Frankfurt School contemporaries (McGrath, 2005). He worked on the conditions required for ideal speech, and refined his methodological approach more comprehensively than his colleagues. However, this methodology was perceived to be inadequate in analysing power relations that were the source of the distorted communications in the first place.

Criticism of social democratic and emancipatory views calls for complementary work in critical IS research that incorporates other approaches, such as Foucauldian ideas. It was studied in the early 2000s that such an eclectic critical view can address power relations, context, and asymmetries in IS innovation on global scale (McGrath, 2005; Walsham, 2001; Avgerou, 2002). Alvesson and Deetz's work in 2000 laid out three concerns for good conduct of critical research – 1) insight, 2) critique, and 3) transformative redefintion - which have attracted substantial engagement from IS scholars (Howcroft and Trauth, 2004).

The first guiding element, *insight*, proposed in Alvesson and Deetz's work (2000), is about looking at the less obvious layers of social reality and understanding the means through which knowledge in its specific forms is sustained. The investigation starts at the local level to understand the conditions that would frame how the researcher produces meaning out of the data. In this approach, the researcher is metaphorically compared to a *lens* rather than a *mirror*, as the researcher is active and positioned in critical research. Competing discourses are produced through shifting the focus from situations and individuals to systems of relations.

In the second task, *critique*, the assumptions, ideologies, and discourses that surround the IS phenomena are challenged. The privileging of certain discourses by certain groups is linked to repression, social asymmetries, ideology, and power constraints at a larger global level than *insight*'s focus on the local. The macro focus on labour and managerial processes could further enhance the understanding of the organisational level (Alvesson and Deetz, 2000).

The third task, *transformative redefinition*, relates to the development of knowledge that is a) relevant and b) critical; it is the most difficult task for this reason. However, Alvesson and Deetz stress that "transformative redefinition should not dominate empirical research. Texts dominated by this tend to be utopian, and this quality is not salient in studies with research ambitions" (Alvesson and Deetz, 2000, p.153). For the task of transformative redefinition, the critical researcher aims to create a different view of the world that suggests positive change, and meanwhile tries to minimise the risk of co-optation; what is initially criticised

can sometimes become the primary logic that dominates the research (Howcroft and Trauth, 2004).

For this third task, defining the target audience for the production of specific knowledge is clearly needed. Since local action and practice are important aspects of critical research, the person(s) with whom the researcher engages becomes a point of consideration; for example, giving advice to management would be contrasted against giving the people who are on the receiving end of decisions access to the researcher's insights. In IS research, the definition of transformative redefinition can extend to the publication of work; critical publications in various academic and practice-oriented outlets can be enlightening in the way that they have the potential to encourage the development of transformative insights (Alvesson and Deetz, 2000; Howcroft and Trauth, 2004). These additional insights can be useful whilst looking into recurring IS problems - for example: IS failures, conflicts between users and developers, user resistance, etc.

Such guiding elements of how to conduct critical research and new foci of criticality emerged with the expansion and changing nature of critical IS. Gaining momentum in IS research were concerns regarding: a) the issues of in-depth investigation of IS at local levels, b) the development of practical understanding as an enabler of changing practices in organisational settings, and c) the critique of taken for granted meanings and interpretations (Mitev, 2005).

3.1.3.2 Frankfurt School and Habermasian approaches and IS

As previously mentioned, there is some notable compatibility between the traditions in IS research and critical research; for example, the choice of the unit of analysis is taken as to be a single unit in both the IS tradition and in critical research (a single unit is thought to enable a good implementation of the emancipation principle in critical research). It is thus not a matter of methodological distinction that exists between interpretive and critical research; since critical research borrows much from interpretive research – e.g. the methods of historical analysis, critical ethnography, action research, field research, text analysis, etc. – the distinction lies instead in the presence/absence of a critique of the status quo (Pozzebon, 2004).

Critical research critiques the ideology and interprets its underlying meanings, with an emancipatory aim at the end. For this reason, critical IS researchers believe that the status quo is too readily accepted by the interpretive research; they deem it to be too passive for confirming the established ways – as a 'facilitator of views' (Lincoln and Guba, 2000) – rather than challenging them (Cecez-Kecmanovic, 2005). A good critical analysis is one that offers new alternatives to social action while creating new understandings of the same social reality (Alvesson and Sköldberg, 2009). Therefore, it can be stated that, in theory, the motivation of critical research is that of activism when compared to interpretive and positivist research. Critical IS research has mainly attempted to give voice to groups who are the marginalised users of IS, and to assist these stakeholders in their emancipation by creating situated knowledge.

Critical theory is an amalgamation of loosely linked principles by the early Frankfurt School, and then by second-generation theorists, out of which the best known in information systems research is Habermas. His approach took social order at a macro level, while concerning itself with sociological concepts at the micro level. Overall, there is little discussion on the role of societal discourses in the IS literature, and the Habermasian approach and its ethics have been considered to be a solid framework for the understanding of distortions that occur in communications, as well as their betterment through practice (Cukier et al, 2004). However, after the oversaturation of the IS field with Habermasian analyses (Brooke, 2002), limitations in this approach have been highlighted (Doolin and Lowe, 2002). During this period of oversaturation, critical ethnography, critical hermeneutics, and critical interpretivism were put forward to broaden the focus of criticality. This was because the use of the Habermasian approach in IS research was not very successful in extensive theorisation of preconditions and causes of power constraints and self-interests in IS research (Mitev, 2005). Therefore, IS remained as an untouched territory by the poststructuralist critique (Mitev, 2006).

Because critical IS research draws from the concepts of critical social theory, then appropriates and models them for the IS field, critical IS researchers need to create a broader view – historically and politically – of the field itself for greater reflection (Cecez-Kecmanovic, 2005). Emancipation discourse (liberating others) in IS research has been critiqued for being totalising in nature, which establishes yet another form of domination (Wilson, 1997; Cecez-Kecmanovic, 2005).

It has consequently been suggested that these emancipatory principles of the Frankfurt School could be 'diluted' with the pluralistic use of mainly poststructuralist theories to guide empirical research in IS (Klecun, 2004; Mitev, 2006). Critical theory has historically been silent on the techniques of investigation and on empirical work in the study of ICTs. Not only have critical theorists been criticised for neglecting more praxis-oriented research approaches; criticism has also been made about critical theory not providing prescriptions for design. The combination of critical theory with other theoretical frameworks and methodologies have been proposed by the scholars to add value to critical information systems research, by bringing distinct epistemological and ontological assumptions together in a methodologically pluralistic fashion.

3.1.3.3 Postmodernist [11] approaches and IS

Several of the pluralistic approaches that emerged out of an amalgamation of critical theory and poststructuralist theories were: ANT (Klecun, 2004); critical discourse analysis (Pozzebon, 2004; Alvarez, 2005); the postmodernist Machiavellian view of power (Silvia, 2005); Foucauldian genealogy and his concept of power (Avgerou and McGrath, 2005; Humphreys, 2006; Peszynski and Corbitt, 2006; Willcocks, 2006; Klecun, 2004); postmodernist approaches (Mitev, 2006); the study of Feenberg's postmodernist work (Klecun, 2005); the social shaping of technology and social construction of technology (Mitev, 2005).

As the nature of criticality has changed over time, authors of critical research are more inclined to argue against a "universally desirable state of affairs" (McGrath, 2005; p.90). This encourages them to draw upon an eclectic mix of theoretical resources. The study of the historical and cultural constitution of actors can provide some key questions for researchers with a critical approach.

History is often emphasised in postmodernist work to analyse how cultural concepts have transformed over time. Postmodernist traditions can be taken up in IS alongside the critical theory for extensive theorisation of power, particularly by focusing on the use of language/discourses. While critical theory follows a rational process to overcome

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[11] *Postmodernism* is used as an umbrella term to refer to a number of theoretical views developed since the second half of the 20th century, and is inclusive of the *poststructuralist* work of the French school of thought.

exploitation, postmodernism sees the process of rationalisation to itself be problematic. Alvesson and Deetz (2000) see the critical theory of the Frankfurt School to be reactive and elitist in its approach, and simplistic in its resolutions. Postmodernism adds a sophisticated critique to research by undermining the principle of emancipation, and by reflecting on totalising emancipatory discourses. Although it can come in various forms, the central principle of most postmodernist work is *discourse*. This builds on the idea that objects are constituted through the power of language, which was initially put forward through the linguistic turn by various scholars of French structuralism (Mitev, 2006). Both critical theory and postmodernism fight the claims of objective truth and essentialism with their constructionist stance, while paying attention to the social politics of experience at the local level (the person is always social). The criticality element of postmodernist work highlights the reality that the structure of experience is distorted when the array of interests is narrowed, limited or excluded when being represented by certain technological designs (Feenberg, 2005).

The methods that are primarily employed by postmodernist approaches are: hermeneutics, deconstruction, resistance reading, and genealogy. These methods enable the researcher to create a framework with which they can analyse the development of knowledge that is historically located, and expose the social practices that are historically and culturally defined by a plurality of rationalities (Lyotard, 1984) in a contingent environment (Foucault, 1977; Avgerou, 2000). As defined in Alvesson and Deetz's (2000) aforementioned concerns[12] for critical researchers, *1) insight*, arises from a hermeneutic understanding of the social reality; 2) *critique* arises from the use of methods of deconstruction and genealogy; and both these concerns can sometimes give rise to a 3) *transformative redefinition* of engagement with the social world in novel ways (McGrath, 2005).

3.1.3.4 Critical IS research

Feenberg (2003) states that technical codes are biased, dependent on the values of the dominant actors who are involved in the development process of systems. Critical theory of technology mainly seeks for the traces of social bias that show up in various forms of technical rationality through "the social content of technical choices" (Feenberg, 2003). With

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[12] Details given in Section 3.1.3.1.

critical theory, researchers see technologies "not as autonomous but as an instrument of social control placed in the hands of the 'vested interests' which control society" (Klecun-Dabrowska, 2003, p.39). Critically approaching technologies means that the social values embedded in the design and use of technical systems is investigated to reveal the ambivalent processes between different possibilities. Klecun-Dabrowska reflects that "technology is not a destiny but a scene of struggles" (2003, p.39). This view summarises the approach of the critical studies in IS.

Klecun's (2005) critical analysis of telehealth information systems in the UK within the framework of competing rationalities highlighted and identified two kinds of rationalities: 1) scientific-medical, and 2) economic-managerialist. The strongest sign of rationality in medical approaches is that of randomised control trials (RCT), known as the gold standard in evidence-based medicine. Some health care projects in the UK are regarded as political imperatives, meaning that evaluation is not of necessity when this is the case. In Klecun's study (2005), it was found that telehealth is societally legitimised through policy documents, more specifically through the image of an 'empowered population'. The British Prime Minister Tony Blair's speech in 1998 about the vision of nationwide, centralised access to health care records (Greenhalgh et al., 2008) is one example of this type of legitimisation. These organisational and national policies, as well as the decisions of funding bodies, embed technical rationality about the ICTs, and portray a simplistic view of the technologies.

Humphreys' analysis of the consumer as a Foucauldian object formulates the consumer in a similar way to the prisoner (Humphreys, 2006). Humphrey's study is based on Amazon.com, through which the technologies of surveillance and individuation that take the form of 'wishlists' and cookies are analysed. The liberatory postmodernist approach adopted by Humphreys looks at: a) the formation of the consumer subject, b) the shaping of consumer agency, and c) the dialectical construction of ontology that is constituted both by the consumers and the marketers.

Peszynski and Corbitt's study (2006) deconstructs the system selection implementation process to expose the dominant role of policy, the nature of resistance and power relations, and the formation of organisational culture. The influence of discourse at two levels – 1) the low level denoting the system selection process, and 2) the high level being the arena of politics that runs simultaneous to the low level – has been analysed through the case of a learning management system (LMS) that was introduced at an academic institution. The

political nature of the process was examined through the notion of discipline (Foucault, 1977), which was imposed through text as policy and enforced by the reporting requirements in the case studied.

Doolin's Foucauldian study (1998) of power relations takes the case of the deployment of a hospital IS. When the roles, processes, and practices gradually shifted to novel forms after the introduction of the system, the information in this information system "became the currency of debate" through which control and legitimacy claims were processed (Willcocks, 2006, p.283). This was because the clinicians internalised the values and norms that were reproduced by the particular discourses in which the IS was grounded. Besides this internalisation and normalisation, it has been argued that the new discursive space created paths of resistance. That is because the clinicians manipulated the information of the system, and diverted the practices based on their agenda, for more resources (Willcocks, 2006).

In her paper that looks at the history behind critical IS research, McGrath analyses Avgerou's (2002) and Walsham's (2001) critical IS work, and concludes that both authors contextualise, attend to multiple viewpoints, and have a strong theoretical focus to their work (McGrath, 2005). Walsham examines issues at organisational, societal, inter-organisational, group, and individual levels, and uses broad commentary from the research subjects to represent through the theoretical concepts. He believes that there are moral considerations that we should be concerned about, and that for the transformation towards a better world with IT, being passive is not an option (Walsham, 2001). Case studies are used in Avgerou's work to address the marginalisation of certain groups in the course of organizational change and ICT innovation (Avgerou, 2002). She focuses on the global socio-economic order to understand the restrictive conditions of it and highlights the importance of contextual analysis in the study of innovation, which can challenge our assumptions about emancipation and economic development (Avgerou, 2002; McGrath, 2005).

3.1.3.5 Discussions of Foucauldian research within IS

The critical approach that stands out the most in postmodernist work is that of Foucault, which, in concise terms, provides "a micro approach [through which] we can learn about the macro order" (Knorr-Cetina, 1981; Klecun, 2004). Concepts such as knowledge and power,

'regimes of truth'[13], net-like organisation of power and truth can be considered key to IS research. Brooke (2002) argues that Foucault's power/knowledge can be used to go beyond the Habermasian analyses employed in early critical-theory-influenced IS research. This is where Foucauldian knowledge poses a challenge for the critical theory: it argues that relations of power are not something that one must be emancipated from (Willcocks, 2006). As much as the human subject is placed in relations of signification and production, they are also placed in very complex power relations (Foucault, 1982). The production of knowledge would always be susceptible to the creation of contradictory outcomes between different stakeholder groups. Power is not a relation that is only repressive, but it is also productive; this logic renders the premise of the Frankfurt School's emancipation difficult to implement in research.

Dreyfus and Rabinow (1982) state that Foucault's critique of how subjects are constituted is not driven by a hermeneutic quest for deep meanings, does not invoke universal classifications, and disregards essentialist leanings - for instance any essentialist theory on human nature (McGrath, 2005). In the Foucauldian version of postmodernist constructionism, both discourse and practices are conveyed and practised through text and speech. Discourses constitute systems of thought (meanings) that inform material practices, and these practices in turn enact the formation of subjectivity, both linguistically and practically, through specific techniques of power (Mitev, 2006).

Power is internalised and regularised to attain traditional norms in society, and is embedded in routinised, everyday social practices (Silva, 2005). What is integral to the understanding of this disciplinary power is the *panopticon*[14] metaphor that is deeply rooted in normalised practices. In this regard, IT can be seen as an electronic panopticon (Zuboff, 1988) through which technological power is internalised. IT in an organisational setting enables the avoidance of in-person contact between employees and managers (e.g. substituted with email

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[13] Regimes of truth are "socially constructed power-constituted determination of what is rational" (Avgerou and McGrath, 2005).

[14] Panopticon is a type of prison architecture planned by the British philosopher and social reformer Jeremy Bentham during the industrial revolution. The aim of the architecture was to implement a system of surveillance over the prisoners, and its design included a tower in the centre encircled by a building of cells that accommodate prisoners all of which face the tower. This system allows permanent surveillance and a state of consciousness of the inmates, even when a guard is not present in the tower, because of creating a sensation within prisoners that surveillance is on-going. The result is the creation of disciplinary power. More details on the panopticon will be given as part of the discussion about the *modes of objectification*.

communications), while highlighting the work practices through which subordinates can be evaluated by their supervisors, but not vice versa.

Despite the fact that one of the seminal pieces in ICT studies, Zuboff's *Age of the Smart Machine* (1988)[15], was largely influenced by Foucault's work, much information systems research has neglected Foucauldian ideas (Willcocks, 2006). In other words, even though Zuboff's work has been widely influential in IS, this has not led a Foucauldian school of thought to emerge within the IS community. The application of Foucauldian ideas in critical research may have provided new paths to conceptualise things for scholars, but there are several points of critique put forward that can help us to understand the level of take-up. Firstly, understanding and utilising Foucault's concept of power can be problematic in empirical research due to the double dimension of power, which implies that power is evident in its effects, yet obscure in its nature. The Foucauldian view of power can be difficult to define and to make sense of for the researcher because of the difficult and mysterious concepts of unowned power, anonymous knowledge, and 'discourse with a life of its own' (Hacking, 2002; p.81).

Moreover, Foucault's work has been analytical, rather than theoretical, which has created an open ended interpretation and some difficulties as to how a researcher can construct their research. Willcocks (2006, p.275) reflects that "it is important to stress the provisionality of Foucault's ideas and the fact that Foucault himself was far from being a systematic thinker". Willcocks explains this by referring to the "discipline anxiety" of IS as "a relatively immature discipline crying out for applicable theory" (Willcocks, 2006, p.279). Hirschheim and Klein reflect that the field is still facing questions about its legitimacy (2011). Because it is a relatively new area of study and an amalgamation of various disciplines - such as: computer science, management studies, economics, etc. - the path to gain intellectual respectability in the IS field has been through looking to an accepted reference discipline "for already approved methods, procedures, and standards, for definitions of what qualifies as knowledge and truth" (Willcocks, 2006, p.279). This led the IS community to adopt methods and approaches in a less critical manner.

However, there are strong cases made in IS for wider application or incorporation of Foucault's work. Examples of IS literature that use Foucauldian approaches include:

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[15] Zuboff's contribution to IS was through demonstrating in a novel way the relationship between information technology and work; that "technology is not neutral, but embodies intrinsic characteristics that enable new human experiences and foreclose others" (Zuboff, 2015).

Introna's (1997) use of Foucault's power/knowledge, Clegg's (1989) conceptualization of circuits of power in the study of ICT implementation, and Brooke's (2002) discussion of being critical in IS and moving beyond the Habermasian framework. Foucault's lens has been compared to Actor Network Theory (ANT), the preferred theory in IS with ideas that are comparable to Foucault's position. It has been noted that ANT "might not offer sufficient explanations as to why the actors under study take particular actions and why some actors are excluded or marginalized from the innovation process, e.g. from the development and implementation of an IS" (Klecun, 2004, p.259). Therefore, a need has been identified in the critical agenda of IS research, which calls for a process of enrichment in such a direction to answer those questions. Willcocks (2006) also reflects that the growth of technological capabilities cannot be disconnected from the intensification of power relations, especially in an era of rising incursion of ICTs into all aspects of life. Foucault may have not privileged material technologies by studying the ICTs directly, but he did privilege the "the behavioural and social technologies encoded and imbedded in material technologies" (Willcocks, 2004, p.289).

With Foucault's knowledge, we can assert that there is no inevitability/fundamentality that is inherent in the trajectories of technologies in the social world; there exists only the gaps between intentions (Foucault, 1996) as to why and how these technologies are deployed in the way that they are (Willcocks, 2006). This indeterminacy needs to be acknowledged. Things could have been otherwise; no trajectory is "determined by the nature of things" (Hacking, 1999, p.6), and what technology we have and how it is being used is not something inevitable (Richardson, 2003). The normalisation of workplace practices at an organisation entails the internalisation of certain dominant intentions and logics. Likewise, the development of a particular information system – and the making of the technical code – also reflect the presence of social biases, dominant stakeholder interests, and various paths to discipline.

3.1.3.6 Issues in Critical IS research

In IS research there exists a point of divergence as to what classifies as 'critical'. Social constructivism, which was adopted by science and technology studies (STS), has influenced the IS field too, and this approach was seen as an enabler of criticality in research. In the

same vein, Berger and Luckmann's (1966) social construction of reality, Hacking's (1999) inevitability focused constructivism, actor network theory, social shaping of technology, social construction of technology (SCOT), and critical social theory have been taken up by IS researchers over time.

As McGrath (2005) examines in her paper, two texts by two IS scholars, Avgerou and Walsham, follow distinct paths to critical research, yet both make substantial empirical contributions to critical IS literature. Even though the field of IS accepts different definitions of being critical, the contributions have mainly been conceptual in the past. This emphasis on conceptualisation and abstraction may render researchers insensitive to the richness of empirical data. It has been observed that there exists a level of inadequacy between theory and practice informing each other whilst doing critical research (McGrath, 2005).

In general, critical theory has been criticised for being intellectually elitist, too esoteric, and too theoretical (Boudreau, 1997; Richardson et al., 2006). There is also a lack of field experience in the IS field because of narrow exposure to the theory in IS research (Richardson, 2003). There are manifold reasons as to why critical IS research has stayed behind critical management research in the timeline: The IS researchers' location within engineering or computer science departments in various institutions often entails less contact with social scientists making up a greater portion of this lag. IS has a more recent origin with a history of around four decades, during which time the IS community has stayed somehow isolated with constant internal debates that have revolved about the boundaries of the field (Mitev, 2006). Organisation studies, as part of critical management research, has a longer history of critical research in the UK; when the government was closing down social science departments in the 1980s, social scientists were only employable by management schools (Grey and Willmott, 2002), and therefore more intellectual capability was absorbed in organisation studies, the field which embraced these social scientists. In this regard, IS is in its early maturity period compared to other management fields, both in terms of the construction of its own knowledge boundaries (Mitev, 2006) and with regard to the production of extensive knowledge on critical theory.

Critical management research (CMS) has also been criticised for its production of knowledge *for* management instead of *about* management; criticisms often refer to the way that CMS is taught in business schools (Walsham, 2005). CMS has also been stated to run the risk of becoming too inward looking and self-regarding due to its existence in isolation

from management studies (Grey and Willmott, 2002). There are parallel criticisms over this kind of isolation in IS research. For example, operating independently from more conventional work may not effectively complement the expansion and development of knowledge, and vilifying stakeholders - such as managers in organisations or non-critical researchers in the same field - may be detrimental to the integrity of the field (Walsham, 2005).

3.1.4 Conclusion

In this section, the emergence of critical theory and its historic foundations have been reviewed. The history and debates surrounding critical research within the information systems field have been identified. As part of these discussions, poststructuralist and social constructionist critical research stand out. Foucauldian approaches have been deployed in IS research, although not widely, yet they have been recognised as a valuable tool. Zuboff's (1988) analysis of the un-neutrality of technology, and Willcocks' (2004) assertion that the behavioural and social technologies are encoded within the material technologies create powerful premises for the use of Foucauldian approaches in IS.

The next two sections deal with the descriptions of Foucauldian concepts and techniques, which will illuminate the analysis conducted in this thesis.

3.2 Discourse Analysis

Language is the medium in which we conduct our social lives and through which the creation of our symbolic existence happens (Alvesson and Sköldberg, 2009). Interest in language concerns a wide variety of micro linguistic units and larger textual units. The study of discourses has been a key theme in social sciences, and discourse analysis (DA) can deepen such study (Alvesson and Sköldberg, 2009). Discourse analysis looks at the construction of reality through language in action. Utterances are context-dependent statements that are meaningful in their private or public settings. This implies that utterances are influenced by what has been said earlier, by the same or by a different person, and hence contain variation. The same phenomenon can be described in different ways by different individuals, and also

in different ways by the same individual. Language always presents reality from a specific perspective through these utterances.

Discourse analysis seems to show similarities with poststructuralism in the way that people are taken to be inconsistent, and in the notion that there is an indeterminable gap between a reality out there and the use of language. However, DA differs from poststructuralism with its empiricism and the avoidance of philosophising characteristics of poststructuralism. Nevertheless, DA's use of empirical material does not make it into an approach that uses realist methods, i.e. DA is not concerned with finding an underlying reality, and the discursive level is the main interest of DA. Discourse, as the object that undergoes discourse analysis, can include kinds of language use, in oral (utterances) and written forms (documents) (Potter and Wetherell, 1987), simply "talk and texts as part of social practices" (Potter, 1996, p.105). Variations in language use and in accounts of the same event are emphasised, in which language is regarded to be constructive, as well as constructed.

Discourse analysis studies interview statements, conversations, and other linguistic materials, which all establish the context of the accounts. In DA, these empirical sources are not used "as a machinery for harvesting data from respondents. They can be viewed as an arena for interaction in its own right" (Potter, 1997, p.149). In this arena, the focus of interpretation is not directed towards straightforward patterns; instead, vagueness, contradictions, and nuances are noted. Inconsistencies and variations are as interesting as consistencies.

The capacity of language use and speech acts can be deemed to be too narrow when looking at issues in a certain context; the exclusion of foci other than linguistics could yield to trivialisation of the research, and to the disappearance of certain important issues. This is reinforced by its functionalist methods, which only take notice of utterances and of their effects at the expense of intentions and psychological content lying behind texts and speeches. To an extent, utterances can be only treated as utterances. Nevertheless, they can be used as starting points for wider interpretations of other phenomena. Remaining reflective, critical, and uncategorical when regarding the use of language can help in such endeavour of creating a narrative for other phenomena. In turn, such phenomena contain two separate elements: 1) conceptions (ideas, values), and 2) objective conditions.

Overall, the empirical materials collected by the researcher – e.g., interviews, documents, talk during participant observations, and so on – are interpreted on three levels: 1) discursive,

2) ideation and 3) action and social conditions (Alvesson and Sköldberg, 2009). At the *discursive* level, language does not stand for something else, but only itself, as the object of study. The object of study is merely the language; the states of mind and external conditions are not used for interpretation at this level. However, at the level of *ideation*, the researcher looks at values, beliefs, ideas, meanings, and conceptions for the interpretation of utterances. Finally, at the level of *action and social conditions,* the language and its interpretations are linked to relations, events, social patterns, behaviours, and structures, which refer to something beyond merely the 'subjective conceptions' of the studied individuals or groups (Alvesson and Sköldberg, 2009, p.236). Put simply, this three-layered process starts with descriptions, goes onto interpretations, and then onto explanations; in this way, it moves from the micro textual/discursive level to the macro social level.

In the following section, two modes of discourse analysis will be explained, whose components have guided this research.

3.2.1 Critical Discourse Analysis

When discourse analysis is undertaken in a critical way, it gains an 'attitude' (van Dijk, 2001, p.96). Critical Discourse Analysis (CDA) looks at the role of discourse in the production and reproduction of power and domination. Fairclough describes CDA as:

> to systematically explore often opaque relationships of causality and determination between (a) discursive practices, events and texts, and (b) wider social and cultural structures, relations and processes; to investigate how such practices, events and texts arise out of and are ideologically shaped by relations of power and struggles over power. (1995, p.132)

In the framework of Fairclough, discourse is made up of three dimensions: 1) text, 2) discourse practice, and 3) social practice. According to Fairclough, textual analysis looks at presences as well as absences in texts that are as "significant from the perspective of sociocultural analysis" (Fairclough, 1995, p.5). With this model, the aim is to carry out the discourse analysis at the levels of: economy (such as of the media), politics (e.g. the characteristics of the market in which the mass media are operating, and their relationship to the state), and culture (e.g. values) (Sheyholislami, 2001). Fairclough's analysis of discourse practice focuses on processes of text production and distribution because "analysis of texts should not be artificially isolated from analysis of institutional and discoursal practices

within which texts are embedded" (Fairclough, 1995, p.9). Social practices imply those hegemonic processes in the institutional or social context in which the discourse partakes; when connected together in a certain way, they establish a social order. Fairclough and Wodak (1997), see language as a social practice and reflect that:

> Describing discourse as a social practice implies a dialectical relationship between a particular discursive event and the situation(s), institution(s) and social structure(s), which frame it: The discursive event is shaped by them, but it also shapes them. That is, discourse is socially constitutive as well as socially conditioned – it constitutes situations, objects of knowledge, and the social identities of and relationship between people and groups of people. It is constitutive both in the sense that it helps to sustain and reproduce the status quo, and in the sense that it contributes to transforming it. Since discourse is so socially consequential, it gives rise to important issues of power. (1997, p. 258)

These concepts will help in the uncovering of ideologically mediated themes within the data collected. The aim here is to define social power in terms of discipline and control, and to think of power as not being absolute. Specific groups in society may accept, resist, comply with, legitimise, or find such power as natural. The power of dominant groups finds itself in laws, norms, and rules, and is exercised through a variety of taken for granted everyday life actions (van Dijk, 2003). In the circle of discourse-power, van Dijk states that controlling the most powerful discourse gives those groups more chances to control the actions and minds of others (van Dijk, 2003). The following question from van Dijk's CDA framework may align with the objective of this thesis to an extent:

- How do powerful groups control public discourse?

In this thesis, some elements and principles of critical discourse analysis will be employed to complement the investigation of Foucauldian discourse. Fairclough, van Dijk, and other scholars who employ discursive approaches are chiefly concerned with studying language, power, and society. They often use Foucault as an influence in explicitly and implicitly stated ways. Fairclough's approach draws especially heavily upon Foucauldian understandings of discourse, in particular from the Order of Discourse lecture by Foucault (1970). It is often not possible to read a literal meaning directly off verbal and visuals signs, and the CDA approach helps to look at those indirect and also absent meanings (Janks, 1997). In Fairclough's version of CDA, the socio-historical conditions that govern the processes through which objects are produced are highlighted. The emphasis on *absent* themes is also another powerful approach that can be employed in this research. It is therefore justified to

be informed about the principles of certain CDA approaches while approaching the old age topic in this thesis.

3.2.2 Foucauldian Discourse Analysis

Since this study aims to conduct an analysis through a Foucauldian framework, and to touch upon the notion of governmentality in discussions, the guidelines of the critical discourse analysis will be well suited for the purposes of thematisation, interpretation, and explanation. However, the Foucauldian Discourse Analysis itself consists of some specific components that are worth being elaborated on. Based on Diaz-Bone et al.'s analysis of the field of Foucauldian Discourse Analysis, "the structure of the field of Foucauldian discourse analysis - or of forms of discourse analysis that are strongly influenced by the works of Foucault - is not an internationally integrated field" (Diaz-Bone et al., 2007). However, in the studies they have identified that employ the Foucaldian discourse analysis approach, the authors always clarify those key concepts like practices, institutions, power, and subjectivity, almost in an obligatory way (Diaz-Bone et al., 2007).

It is important to point out that Foucault's concept of power does not have a top-down design. Power is not seen to be exclusively located in the state, but it rather is exercised throughout the population, and is present at every level of the social body. Therefore, discourse is not something to be controlled only by privileged groups, even though all forms of power relations refer to the state in certain ways. Nonhoff (2017) states that van Dijk's analyses are mainly centred on actors, who have explicit intent to dominate, and that his work mostly focus on dominance and social power that is held by certain groups, elites, or institutions, allowing them to sustain social inequalities. Even though van Dijk's notion of power might not reflect entirely the power of concern in this study, the elements of his approach to CDA are still useful when asking the question of how certain discourses can be more powerful through certain voices.

Sovereign power, which involved a central authority, has been slowly taken over by disciplinary power since the eighteenth century. Foucault argues that modern society is a disciplinary one, in which power is mainly exercised through disciplinary means through a multiplicity of institutions such as schools, prisons, hospitals, etc. (Foucault, 1977). His

concept of governmentality involves those techniques that have been designed to govern the conduct of the social body, both at population and individual levels.

For Foucault, *discourse* is described as a certain 'way of speaking' (Foucault, 1969), and also as "historically variable ways of specifying knowledge and truth" (Powell and Biggs, 2003), which function as sets of rules. It refers to those groups of statements that are effective in structuring the way we think about things – how the world is understood – and the ways in which we act on that thinking – how things are done in this world (Rose, G., 2001). Foucault's analysis is concerned with those techniques that make particular ways of doing and speaking normalised. His attention is on the social practices and power relations that give rise to the different institutional regimes, forms of power/knowledge, and logics of subjectification (Foucault 1977; Howarth, 1998). The dual concept of power/knowledge indicates those myriad ways in which mechanisms of power produce different forms of knowledge, and how then this knowledge feeds back into the exercise of power - meaning that they are continuously reinforcing and legitimising each other. This imbrication between knowledge and power is not solely constructed upon the notion that "all knowledge is discursive and all discourse is saturated with power" (Rose, G., 2001, p.138), but, more importantly, it indicates that the most powerful discourses – in terms of their social effects – depend on the claims and assumptions that their knowledge is true.

For Foucault, discontinuities and continuities in history reflect the fact that things are no longer perceived, classified, and known in the same way as before (Foucault, 1994b). For him, discourses are discontinuous practices; however, some of the discourse would be continuous over time, until society establishes the new form of truth based on the steady accumulation of knowledge. Overlaps, disruptions, and discontinuities occur with the reconfiguration of this new norm/rationality/truth. Foucault's genealogical method is concerned with the "historical limits and conditions" of discourses, which have the capacity to "direct and distort the personal and institutional narratives that can subsist within them" (Biggs and Powell, 2001, p.6).

Foucault states that "It is not enough to say that the subject is constituted in a symbolic system. It is not just in the play of the symbolic that the subject is constituted. It is constituted in real practices – historically analyzable practices" (Foucault, 1997, p.227; Olssen, 2014, p.34). Although, not explicitly stated in Foucault's work, Foucault conceptualisation of "the discursive as an ontologically autonomous domain which interacts with the practices of the

non-discursive" (Olssen, 2014, p.36) has been under scrutiny, and it has been observed that the materiality of the discursive systems is emphasised in his statements (Olssen, 2014). Another argument of Foucault establishes that "there is nothing to be gained from describing this autonomous layer of discourses unless one can relate it to other layers, practices, institutions, social relations, political relations, and so on. It is that relationship which has always intrigued me" (Foucault, 1967, p.284; O'Farrell, 2005, p.80). This marks the recognition of other objects than discourse, although their relationship with the discourse is primary. It is important to highlight that Foucault avoided the traditional idealist/materialist division or cause and effect relations in his work. "It is not a matter of dividing history into two levels, the airy level of ideas (or discourses) and the earthy and 'real' level of 'material' occurrences" (O'Farrell, 2005, p.81). For example, economics does not constitute the material infrastructure, and theory the frivolous superstructure; or that an idea does not cause a social event to occur, or vice-versa.

One of the material components of the discursive system in this thesis is the telecare ICTs and their practice in connection with older people. These practices contribute to the discourses of old age, and so do the discursive components of the government policies. In light of the information in this section, I can state that the focus of this thesis is not to detect the coercive ways with which the government and institutions are implementing their IT strategies and initiatives; the emphasis is rather on those discourses that are formed through various power/knowledge mechanisms of governmentality. It is also important to pay attention to those old age discourses that might be enacted or undergoing changes in a new context. This new context in this thesis refers to the presence of telecare technologies, and their related narratives, as part of old age care related policies.

3.3 The Foucauldian Toolbox

In the previous sections of this Conceptual Framework chapter, the contribution of critical theory and discourse analysis approaches has been discussed. In this section, the elements that define and describe the production of subjectivities and identities will be reflected upon. Firstly, I will start with a justification of why Foucault's approach contributes to this thesis. Then I will move forward to the explanation of the frameworks, concepts and their embedded

analytical methods that are employed in this study. The relationships constructed between concepts will be elaborated on in Section 3.4.

Why Foucault?

Foucauldian thinking is concerned with the historicity of the link between power and knowledge, and evidently how certain strata in society came to be as they are. Versions of postmodernism, critical theory, and hermeneutics are encompassed by Foucault's writings. His power analysis and discourse analysis are distinct in their capacity to avoid objectivistic claims about the world (Alvesson and Sköldberg, 2009).

Foucault's work contributes to the analysis of old age in the following ways: Firstly, his analysis of disciplinary techniques as well as his analysis on the relationship between madness and medicine have parallels with the societal perceptions of old age and older people. In his work, he describes "how the 'elderly', 'criminals', and the 'mentally ill' are constructed through disciplinary techniques such as the 'gaze'" (Powell and Biggs, 2000, p.6). Secondly, the historical critique approach of Foucault enables the destabilisation of taken for granted assumptions about ageing, and helps to diagnose current social arrangements (Powell and Biggs, 2003). And finally, Foucault's approach makes it possible to analyse both the discourses embodied in social policies and those functioning within society.

Foucault worked on diverse topics and problematised such issues as deviance, madness, illness, criminality, and sexuality (1967; 1977; 1980a). Because these issues are conceptualised as socially constructed problems, Foucault in return has problematised "the role of the 'expert', social institutions, social practices and subjectivity that seem 'empowering' but are contingent socio-historical constructions and products of power and domination" (Powell and Biggs, 2000, p.6). His theories are relevant to old age because he recognises that social practices "define a certain pattern of 'normalization'" (Foucault, 1977, p.72). These social practices are mediated by 'experts', such as managers, who interpret older people through a process of 'assessment'. Care managers can be seen as one part of the panoptic technology (Foucault, 1977) who scrutinise and normalise judgement on older people through several discourses, such as older people as service users, as clients, or as consumers. Because the ageing bodies and individuals are located in a network of normalising discourses, the power relations in this political field aim to render ageing

individuals as docile as well as productive subjects (Smart, 1985). For example, the regular assessments and resource management processes conducted by care managers are part of these power relations.

Powell and Biggs (2003) reflect on the three methodological tools that are fundamental to Foucauldian research: 1) archaeology, 2) genealogy, and 3) technologies of self. These tools are key in the investigation of social aspects of ageing because they can be used "to disrupt history at the same time as giving history a power/knowledge reconfiguration" (Powell and Biggs, 2003, p.1). Archaeology includes the systematic method of investigating and tracing statements in the historical archive, such as official statements and policy documents (Powell and Biggs, 2000). Genealogy, on the other hand, puts archaeology to practical use, links historical data to the current context, and investigates discontinuities. Through this investigation, the ways in which human beings are made subjects by power/knowledge practices are revealed.

3.3.1 The genealogical method

In its approach to discourse, genealogy distinguishes itself from archaeology because it focuses on the study of processes within the web of discourse (Powell and Biggs, 2003). With a genealogical approach, researchers can look at which discontinuities and continuities exist in a given context (Powell and Biggs, 2001). Discontinuities and inconsistencies have been a part of Foucault's work in which the origins of discourses were tracked in the form of *epistemes* – "the ordered fields of knowledge (...) which are common to the discourse of a whole epoch" (Alvesson and Sköldberg, 2009, p.250). In Foucault's own words, genealogy is "a form of history which can account for the constitution of knowledges, discourses, domains of objects, etc., without having to make reference to a subject which is either transcendental in relation to the field of events or runs in its empty sameness throughout the course of history" (Rabinow, 1984, p.59). By getting rid of the subject itself as an analysis theme, the historical – and contextual – constitution of the subject can be accounted for by the genealogical analysis. This happens as a contrary strategy to referring the subjects back to a constituent object such as criminality, madness, and so on.

"Genealogy", as Foucault continues, "does not pretend to go back in time to restore an unbroken continuity that operates beyond the dispersion of forgotten things; its duty is not

to demonstrate that the past actively exists in the present (…) Genealogy does not resemble the evolution of a species and does not map the destiny of a people. On the contrary, to follow the complex course of descent is to maintain passing events in their proper dispersion; it is to identify the accidents, the minute deviations - or conversely, the complete reversals - the errors, the false appraisals, and the faulty calculations that gave birth to those things that continue to exist and have value for us; it is to discover that truth or being does not lie at the root of what we know and what we are, but the exteriority of accidents" (Rabinow, 1984, p.81). The genealogical method looks at the power relations through oppositions to the power strategies; for example, investigating 'insanity' to find out what is meant by 'sanity' in society, or how the field of 'illegality' creates the meaning for 'legality' (Foucault, 1982). Also, what we can derive from the statements above is that the search for origins is not the aim for the genealogical method, but the search for discontinuities and oppositions is.

Foucault used discourse to analyse diversity in configurations, assumptions, claims, categories, and so on, which makes the use of the word 'discourse' somewhat different to the one used in discourse analysis. Discourse, in the Foucauldian sense, is a logic of reasoning that permeates the social world, and forms its objects systematically, rather than being a mere use of language in social contexts. Foucault's interest lies in the constitution of objects and subjects through discourse, rather than in the specifics about language use in social situations.

Power has always been present in Foucault's work. It was at first subjugated to discourse analysis, and later was subordinated to genealogical methodology. In genealogy, the origins of discourses, as well as their regularities, randomness and discontinuities, are studied. Foucault's work started with its archaeological phase that studied the forms of discourses with isolated discursive descriptions. It continued with a genealogical phase that studied origins of discourses, incorporating a critical engagement with power. In the first period, the archaeological method was used to disregard statements of truth, map out systems of thinking, and write a history of the present; which processes have led to what we are today. The archaeological approach can be seen as a method through which to manage and organise forms of knowledge and determine similarities and differences among them. Similarly, the genealogical method uses the same substrata of knowledge; however, the object of interest sways from the silos of knowledge to the mechanisms of power, which have historically provided the grounds for the construction of certain dichotomies - such as normal and deviant, true and false, and so on (O'Farrell, 2007). For this to be achieved, Foucault looked

at non-discursive practices in addition to the discursive ones; such social institutions as sexuality, prison, psychiatry and so on.

Foucault offers a different way from the Frankfurt School in investigating the relations between rationalisation and power. In the construction of 'power', Foucault disregards the use of conventional concepts - such as ideologies, structures, individuals, etc. - as well as any definition or abstraction of power. Foucault's disinterest in 'who possesses power' creates an understanding of power that is un-localised and changeable, and, in theory, everywhere. There is no clear theoretical formulation of power by Foucault, as a theoretical order would have delimited or defined power.

Therefore, it would be proper to say that power is a mode of action upon actions; that power relations are rooted in the social networks of the society; and that power relations are not constituted above the societal level. It would be an abstraction to suggest an existence of a society without power relations; to be a part of a society makes the mode of action upon actions an ongoing process. This is precisely why the analysis of power relations in a given society is politically critical of their history, the formation of strategies, and of the conditions necessary to transform and abolish some actions (Foucault, 1982).

"The genealogy of the modern subject" (Rabinow, 1984, p.7) looks at and analyses the parts of discourses and practices that deal with knowledge, power, and the subject. Studying the problematisations of the subject, of power/knowledge, and of government aligns with the general aim of Foucault. This aim has been to discover the points in history at which particular practices were moulded into reflective techniques, and at which points particular discourses emerged out of these techniques, and were rationalised to reflect objective truths. For example, Powell and Biggs' study states that genealogy of old age disrupts narratives of 'choice' – the language that has been embedded in social care policy in the UK (Powell and Biggs, 2000).

The next section focuses on the construction of subjectivities and identities, modes of objectification, bio-power and governmentality to further understand the elements of the genealogy of the modern subject.

3.3.2 Construction of subjectivity

Subjectivity can be demarcated as a core concept to understand ageing (Powell and Biggs, 2004). Foucault's work focuses on subjects that are "caught in various webs of discipline, power and modes of liberation" (Katz, 1996), and asserts that "subjectivity itself must be denounced as a principle of domination" (Dews, 1984). The Marxist philosopher Althusser's positional subjectivity asserts that we live in a concrete world as well as a symbolic one in which "we pattern our subjective experiences in ways that reproduce concrete relations" (Katz, 1996, p.11). For Althusser, subjectivity is fabricated as a part of deeper reality and that it is a material process which constructs itself upon the mechanisms of ideology (Althusser, 1971); however, for Foucault, the material manifestations of subjectivity represent an aspect of reality that is systematically formulated by discourses. In the Foucauldian analyses of micro-levels of culture, local politics, and marginalised groups, one can find rich discursive, social and historical layers wherein relations of power and knowledge outlie the processes of economic exploitation and labour.

Individual subjects are both social agents and social constructions. Foucault states that "it may be that the problem about the self does not have to do with discovering what it is, but maybe has to do with discovering that the self is nothing more than a correlate of technology built into our history" (Foucault, 1993, p.222). The organising of social relations is mediated through the potential of a belief/category; the more idealised this belief/category is, the greater its potential. For example, 'the aged' is a subject category, a category of social construction, which becomes meaningful through relations of power with the articulation of self-reinforcing institutions, practices, and ideologies (Riley, 1988). Dominant ideologies secure their hegemony in a context-dependent way. In the temporality of ideologies and subjects, the same ideology can both operate to secure or resist the hegemony, and the same subject to embody both resisting and dominant strategies. This asserts that no one subject position or no system of meaning (ideology) can stay permanently in power (Katz, 1996).

Foucauldian subjectivity has theoretical alliances with structuralism, Weberianism, Parsonianism and Marxism. The comparison to Weber reflects the predominant analyses of modern social order that is governed by experts, specialists and bureaucrats, in which the control is maintained via rationality, calculations and categorisations (Rabinow, 1984; Turner, 1992). The production of subjectivity within normalising environments, such as clinics, is the exploration arena for both Parsonian and Foucauldian analyses. Poster also

reflects that the Foucauldian theorisation of state aligns with the Marxist focus on *rituals of normalisation* and the politicisation of the body (Poster, 1982). In the same vein, Foucault's work was influenced by some aspects of the structuralist tradition in the 1960s, which puts structure over event, and discourse over individual subjectivity (Katz, 1996). What distinguished Foucault's case studies from structuralist studies was that they reflected discursive formations, which are historically contingent. His works have been seen as belonging to post-structuralist and critical schools (Klecun-Dabrowska, 2003).

3.3.2.1 Identity

One concept that is visible in the scholarly discussions of subjectivities is *identity*, such as the ageing identity that is used in this thesis. Concepts of subjectivity and identity are sometimes used interchangeably, although their differences are highlighted in some studies. It can be said that identity has its roots in the modernist tradition, whereas subjectivity is founded on post-structuralist and postmodernist thought, and focuses on the making of the subject and the making of identity. To conceptualise the relation between subjectivity and identity, cultural theorist Weedon offers a definition: "Identity is perhaps best understood as a limited and temporary fixing for the individual of a particular mode of subjectivity as apparently what one is. One of the key ideological roles of identity is to curtail the plural possibilities of subjectivity inherent in the wider discursive field and to give individuals a singular sense of who they are and where they belong" (2004, p.19).

For example, 'assessment' can be considered a central technique that makes an individual into an old age object of power/knowledge (Foucault, 1977). In assessments, an ageing body is established in relation to normalised standards of risks, which render older people as objects of economic, social, and psychological narratives that address 'frailty', 'financial resources', and required levels of 'supervision' (Powell and Biggs, 2000). This "indicates the appearance of a new modality of power in which each individual receives as his status his own individuality, and in which he is linked by his status to the features, the measurements, the gaps, the 'marks' that characterise him and makes him a 'case'" (Foucault, 1977, p. 192).

In this thesis, the assumption is that older people are socially positioned in specific ways and this positioning creates a particular identity. This identity that older people occupy is actively

constructed in discursive contexts, such as national policies, and practices at social service institutions. Identities in general are constructed through public discourse, and they occur in association with each other, including age, gender, race, sexuality, disability status, etc. Although, in a particular context, certain identities are prioritised (Fealy et al., 2012). The social care policies and telecare institution practices that will be analysed in this thesis generate a context in which the identity of old age has been foregrounded.

Older people are constructed as a particular social category (NCPOP, 2009); the identity of old age arises from the categorical label 'old age', which "might appear natural and obvious" (NCPOP, 2009, p.8). However, this categorical label is "contingent, unstable and the product of particular historical circumstances" (Ainsworth and Hardy, 2007, p.269). The social construction of older people is often with reference to the utilisation of health and social care services, and therefore an identity of dependency is constructed through this (Ainsworth and Hardy, 2007; NCPOP, 2009).

The creation of identities constitutes a complex process in which power and subjectification overlap. The sociologists Dagg and Haugaard (2016) analyse this complex process through Foucault's work, 'The Subject and Power' (1982), in which he elaborates on the relationship between the creation of social subject and power:

> This form of power applies itself to immediate everyday life which categorizes the individual, marks him by his own individuality, attaches him to his own identity, imposes a law of truth on him which he must recognize and which others have to recognize in him. It's a form of power which makes individuals subjects. There are two meanings of the word subject: subject to someone else by control and dependence, and tied to his own identity by a conscience or self-knowledge. Both meanings suggest a form of power which subjugates and makes subject to. (1982, p.212)

In this quote, Foucault argues that subjectification constitutes a process that categorises the individual; the individual becomes a carrier of meaning (Dagg and Haugaard, 2016). With this, the individuality of the person is marked, giving them a particular identity, a particular way of being. This identity does not only socially position the person for others, but also constitutes an own sense of identity. However, this is not an arbitrary social construction, but a representation of the regime of truth[16], the truth that highlights the normalising effect

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[16] Foucault describes regime of truth as follows: ''Each society has its regime of truth, its 'general politics' of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the

of all discourses. Through this social construction, an interactive process is formed in which the individual recognises their position as perceived by others; "in this act of recognition they become subject to someone else's normalising judgement, which constitutes a form of dependence upon another as a validator of that subject identity and, consequently, that other imposes upon them a form of control" (Dagg and Haugaard, 2016, p.397). This 'external validation' becomes a form of self-knowledge and comes to define the individual's perception of self. In other words, the individual becomes both a subject and an object of knowledge. As an object, they are subjected to the evaluation of others, and this establishes their subject position in society (Dagg and Haugaard, 2016).

The elements of this external knowledge formation form the basis of this thesis. Although the creation of a social subject happens through a complex system of power and subjectification processes, the aim here is to focus on those practices of power/knowledge that constitute a form of dependence upon individuals as a validator, and impose upon them a form of control. Therefore, from this point on, the construct of *old age identity* in this thesis will refer to an *abstraction of an old age identity*, which is represented through the medium of telecare policies and practices. I intently define *identity* to comprise the power/knowledge formations that impose a form of control structure upon old age subjects. The public texts and institutional practices reveal explicit and implicit ways of positioning older people that bestow on them particular old age identities.

The construct of *identity* also resembles the concept of *human kind*, to be explained in the next section. Hacking introduces the mechanism of *looping effects* in his discussion of human kind, which details the iterative processes between knowledge production on objects and formation of self-knowledge (1995; 1999).

3.3.2.2 Human kinds

Philosopher Ian Hacking draws inspiration from Foucault in relation to the production of knowledge. Hacking's *human kinds* (1995) – or *interactive kinds* (Hacking, 1999) – means "kinds about which we would like to have systematic, general, and accurate knowledge; classifications that could be used to formulate general truths about people; generalizations

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techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true" (Foucault, 1980b, p.131).

sufficiently strong that they seem like laws about people, their actions, or their sentiments" (Hacking, 1995, p. 352). The conceptualisation of a human kind, as opposed to natural kinds, assumes that a human kind primarily classifies people and their behaviour.

Social sciences classify the interactive kinds (Hacking, 1999). Calling the person A with the human kind H may make the society treat A differently, as much as making a difference to A because the human kind H would possibly be loaded with moral connotations. Creating kinds to classify people affects how individuals think of themselves, their self-worth, and how they remember their past too. This is how a 'looping effect' is generated, because people of a certain human kind behave differently, and the kind changes constantly. Each change creates a new field of causal knowledge for the sciences, wherein the old knowledge about the kind is updated. This new way of sorting again changes the behaviour and self-conception of the people classified; "kinds are modified, revised classifications are formed, and the classified change again, loop upon loop" (Hacking, 1995, p.370). It is not the case that wholly new human kinds are devised continuously; rather, it is about the reorganisation: building on the old kinds.

There is a regular tendency to strip human kinds of this value/moral content by biologising and medicalising them as part of the instrumental human sciences, which are named by Hacking as "the great stabilizers of the Western post-manufacturing welfare state" (Hacking, 1995, p.364). The studies conducted in human and social sciences to detect law-like regularities generate acceptance, intervention, and consensus, thereby becoming what we take the knowledge to be, and forming the system of government. As part of this system of governing, oftentimes the causal connections between kinds are taken to be more comprehensible at a biological level, as opposed to the connections operating at a social or psychological level (Hacking, 1995). The word *biological* stands for "biochemical, neurological, electrical, mechanical, or whatever is the preferred model of efficient causation in a given scientific community or era" (Hacking, 1995, p.372).

The concept of *identity,* as explicated in Section 3.3.2.1, resembles the concept of a human kind. In a way, by theorising the concept of human kind, Hacking creates a nuanced version of identity, in terms of the iterative processes between external and internal knowledge formations. In this thesis, it is assumed that the ageing identity undergoes looping effects, therefore it is inevitably a human kind. The reason why this concept is important is because the identity formation, as integral to this study, does not occur either just by external (to the

individual) knowledge formation or just by self-knowledge. Even though the scope of the thesis is limited to the investigation of the discourses of ageing in telecare policies and practices, it is still essential to be reminded that the knowledge itself is not just the product of the state or the institutions. The social positioning of a certain *kind* of people through governmental policies and institutional practices can generate looping effects. This is because people classified interact with the classifications, and thus, by implication this means all the more reason to reveal these classifications.

3.3.3 Modes of Objectification

As subject-constructing disciplines, gerontology and old age studies provide an arena for the exploration of the use of modes of objectification. The three modes of objectification that transform humans into subjects were studied in The Subject and Power (Foucault, 1982). These are 1) the processes "that categorize, distribute, and manipulate; [2] those through which we have come to understand ourselves scientifically; [3] those that we have used to form ourselves into meaning-giving selves" (Rabinow, 1984, p.12). These three modes of objectification can be referred to as: 1) *scientific classification*, 2) *dividing practices*, and 3) *self-subjectification*. The first mode is the mode of inquiry and of *scientific classification*, which is reflected on the status of sciences. The second mode, *dividing practices*, divides the subjects either within themselves or divided from others. The example of objectivising the subject as 'mad' versus 'sane', or 'sick' versus 'healthy' belongs under this mode of objectification. The third mode studies *self-subjectification* – the process of a human being turning themselves into a subject.

Scientific classification practices transform people into kinds of subjects and have been used as invaluable techniques for the production of knowledge in the human sciences; e.g., in disciplines such as sociology, psychiatry, and criminology. These practices offer ways to study, organise, define, and codify human attributes based on the grand categories of the *normal* and the *deviant/pathological*. Foucault's The Order of Things (1994b) studies the production of subjects as objects of knowledge. It asserts that the Renaissance's *epistemes*[17]

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[17] "I would define the episteme retrospectively as the strategic apparatus which permits of separating out from among all the statements which are possible those that will be acceptable within, I won't say a scientific theory, but a field of scientificity, and which it is possible to say are true or false. The episteme is the 'apparatus' which makes possible the separation, not of the true from the false, but of what may from what may not be characterised as scientific" (Foucault, 1980b, p.197).

of the enlightenment later developed into scientific discourses of the West. Examples include the objectification of the speaking subject in linguistics; "of the subject who labours, in the analysis of wealth and of economics"; and "of the sheer fact of being alive, in natural history or biology" (Foucault, 1982, p.777). One of these subject positions is the aged subject. In the same tradition as in other human sciences, the sciences of geriatrics[18] and gerontology that arose in the late 19th century produced new knowledge based on this new subject.

Maintaining social stability by separating, categorising, normalising and institutionalising populations entails the use of *dividing practices*. Historic examples include the segregation of lepers from the non-diseased, the mad from the sane, and the criminals from the good people. The rise of psychiatry in modern times and its application in prisons, hospitals and clinics is another example of dividing practices in action, as well as the modern process of stigmatisation, regularisation, and medicalisation of sexuality mainly in Europe. The rise of modern programmes of rehabilitation and reform, and the convergence of liberal humanism with disciplinarity, gave space for the birth of the prison (Foucault, 1977). With dividing practices, the subjects are given a social and personal identity by which they are socially objectivised and categorised. Exclusion through scientific mediation is the main mode of manipulation of the dividing practices through which groups are formed and given an identity. Put simply, this mode looks at how institutions objectify human subjects.

The coexistence of *classification* and *dividing practices* entails that, while professions study and classify groups, the governments and institutions discipline, divide, and regulate these groups. The mode of subjectification by which a person turns themselves into a subject, *self-subjectification*, includes *technologies of the self* - "techniques that permit individuals to affect, by their own means, a certain number of operations on their own bodies, their own souls, their own thoughts, their own conduct, and this is in a manner so as to transform themselves, modify themselves, and attain a certain state of perfection, happiness, purity, supernatural power" (Foucault and Sennett, 1982). For example, the discourses of sex, as part of self-understanding, gained momentum in the nineteenth century; it was followed by an obsession around sexuality, own health, and the growth of medicalised discourses of sexuality (Rabinow, 1984). The study of technologies of self in The History of Sexuality (Foucault 1985; 1986), reflects that one's ideas about oneself are merely the recurring consequences of the self-subjectification practices of the Western society. Classification and

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[18] The branch of medicine that focuses on health care of older people.

dividing practices, when combined with self-subjectification practices, construct modern subjects. To continue with the example of sexuality: Human sciences classify problems and experiences of sexualised subjects; the systems of power stratify and institutionalise the kinds of sexual subjects; and the *technologies of the self* give reflexive means to individuals to problematise their sexualities. Dividing practices and subjectification can be combined to analyse the historic processes, however these two modes are still distinguishable on the analytical level.

When applied to the study of old age, this theoretical framework focuses on the analyses of the techniques that are used to problematise ageing subjects, rather than focusing on the conventional formulations and analyses of ageing. In the example of old age, three technologies have been identified through which the ageing self has been reshaped by medical experts (technologies for self) and by the self's own consciousness (technologies of self): 1) good health management, 2) bodily enhancement, and 3) the use of counselling narratives (Powell and Biggs; 2004).

In this thesis, the two modes of *scientific classifications* and *dividing practices* will be taken as the basis of analysis, through which conclusions will be drawn on old age identity. This is largely because the aim of this research lies in investigating how professionals study and classify individuals, and how governments and institutions discipline, divide, and regulate old age groups. Therefore, the 'technologies of regulation and collective control' (Powell and Biggs, 2000) – or as depicted in Section 3.3.2.1, the external validation and knowledge formations – will be given a preference, and the construction of old age identity will be investigated through the lens of public policies and institutional practices. Since these mediums form discursive systems of power/knowledge through which discourses are enacted and normalised, the aim will be to reveal the explicit and implicit ways they position older people. Section 4.4.2 under the Research Design chapter also elaborates on this subject.

3.3.4 Governmentality and bio-power

Since the rise of the state in the sixteenth century, a new political structure and form of power developed. Pastoral power, a power technique originating from Christian institutions, is a historical predecessor to the regime of bio-power. The element of individuality, which serves a function in religious institutionalisation, has come to be part of pastoral power and of the

modern state in its new form. The *state* is therefore manifested through a new kind of pastoral power and modern individualisation techniques (Foucault, 1982). As opposed to the religious expression of salvation – which relates to a different world – the modern version of salvation manifests through well-being, security, health, etc.

What marks the beginning of the era of bio-power is a collection of techniques that can achieve the control of the population and of the body; the development of disciplines, universities, schools, and the emergence of research and policies regarding public health, birth rate, housing, and migration. Bio-power mechanisms heavily depend on explicit calculations; categories such as species, population, and fertility become "the object of systematic, sustained political attention and intervention" (Rabinow, 1984, p.17). Government and medicine became components of the medico-administrative regime that resulted from the 18th and 19th century health crises. The spread of normative rationality of bio-power reinforced the reliance on statistical methods and judgements that divide the population into healthy & unhealthy, normal & pathological, and living & dying, to calculate and monitor the health of the population. The apparatuses of normalisation make possible the normalisation of the law through the addition of principles of psychiatry, medicine, and social sciences as part of legal discussions. "The law operates more and more as a norm, and (…) is increasingly incorporated into a continuum of apparatuses (medical, administrative, and so on) whose functions are for the most part regulatory" (Foucault, 1980a, p.144).

Bio-power enables the policies to have impact on biological health, and it enables the state to govern individuals through influencing their biological frameworks. For example, the aged body became the centre of social and scientific discourses about old age in the 19th century. Through the disciplining of aged bodies, the disciplining of knowledge about old age was made possible. Technologies of bio-power come together and make the objectification of the body possible. The disciplinary technologies in diverse institutional settings - such as in schools, hospitals, prisons, etc. - aim to create docile bodies through different methods. Training of the body, standardisation of actions, and control of the space enforces continuous disciplining and supervision to enable certain objectives in those settings. These objectives could include examples such as: facilitating productivity in a factory, ensuring orderly behaviour in a school, and controlling epidemic diseases in a population (Rabinow, 1984).

Foucault's notion of "power in knowledge" (Deetz, 1992, p.77) plays an important role here. It emphasises the inseparability of the concepts of power and knowledge. The intimate relationship between the development or deployment of specific knowledge and the exercise of power is formed through classifying, measuring, calculating, and standardising in institutionally controlled environments. While knowledge makes possible the exercise of power, this exercise in turn also creates knowledge, in its both repressive and progressive forms.

Political rationality lies in the centre of disciplining and regulating, which binds the subject and power together. The most popular example as given by Foucault to represent a framework of a disciplinary technology is the aforementioned model of the *panopticon*, as devised by Jeremy Bentham in the late eighteenth century. Besides being a model of functioning, the panopticon organises spatial arrangements and humans in particular ways as a visual cue to the functioning of power. The rationality behind the panoptic model could, at first, be predicted to be that of productivity and efficiency; yet the aspect of normalisation is the key. Norms organise, and they are also the results of controlled orderings around which individuals are systematically distributed. This normative ordering forms the key component of *bio-power*, the regime of power by the state, in the form of a government that is concerned with fostering life and the care of the population by measuring, qualifying, hierarchizing, and distributing around the norm. Human sciences that regulate and create, directly or indirectly, the modern body serve as the knowledge base for the exercise of disciplinary bio-power.

The notion of *government* does not only refer to the management of the state or to political structures, but rather a designation to direct by which the conduct of individuals is made possible (Foucault, 1982). The specific forms of government in a given society are manifold in the way that they overlap, cross, cancel one out, and reinforce each other. In modern societies, the state does not pose as only one form of exercise of power any longer; rather, all other forms of power relations do refer to it in a certain way. When these power relations come under further state control, they are increasingly "governmentalized, that is to say, elaborated, rationalized, and centralized in the form of, or under the auspices of, state institutions" (Foucault, 1982, p.793). For example, the *governmentalization of living* has been progressively happening through the contribution of a series of new scales, such as the measure of quality-adjusted life-year (QALY). This type of governmentalization makes "social and personal consequences of living with disease (…) an object of political concern",

and the living "knowable, calculable and thereby amenable to various strategies of intervention" (Wahlberg and Rose, 2015, p.1).

The study of the body through advanced information technologies that enable scanning, mapping, imaging etc. has provided ways to categorise and make visible functional and dysfunctional conditions (Rabinow, 1996; Katz and Marshall, 2004). Functional measurements are made transparent through technologies and flow with ease between bodies, individuals, and populations. Unlike in the historical binary of the normal/pathological in medical sciences, the dysfunctional states in the postmodernity can be adjusted and enhanced through therapy, experiments, lifestyle, diet, and drugs. This situation enables the creation of a web of data that connects scientific and online communities, population statistics, research studies, and marketing. What comes next after the transparency and visibility of functional/dysfunctional states is the development of bio-identities that rely on these states – 'biological citizenship' (Rose and Novas, 2005). People know themselves based on the ways their biosocial lives are deemed worthy; their biology becomes improvable and manipulable. Bio-citizenry embraces an element of curiosity by the individuals about life choices and decisions, besides the larger mobilisation of lobbies and groups around the issues of pharmacological research, reproductive rights, health, and environment (Katz, 2010).

Foucault's specific interest was in neoliberalism as a form of governmentality because of the ways in which it involves individuals in the process of governing, and how this governing becomes embodied. Neoliberalism emphasises the dominant doctrine since the 1970s that takes market exchange as a guide for all human action. It reconstructs the state's powers by minimising economic interventions by the state, and by diminishing the obligations to provide for the welfare of its citizens (Harvey, 2007). This means fewer social services provided by the state, and wider privatisation in these services. Rose and Fukuyama use Foucault's governmentality to explain processes of neoliberal economics today, and study how neoliberalism's main function is to self-govern (Rose, 1999; Fukuyama, 1996). This is because the individuals are in charge of their own access to social services rather than the government providing these services for them. Neoliberalism's continuous efforts to shrink state services necessitates individuals to manage their own access to social services (Maskovsky, 2000). Therefore, the governmentalization of the state is principally about "the continual definition and redefinition of what is within the competence of the state and what is not" (Foucault, 1991, p.103).

3.3.5 Criticism and implications of Foucault's work

Foucault's micro focus has been criticised on grounds that some crucial phenomena escape from the Foucauldian view - for example: power relations of the state, power in the economic relationships, etc. The idea of power having no essence or a centre makes the concept too wide, which is argued to result in losing some sight of gender relationships, social class relationships and so on (Newton, 1998). In the same vein, critiques have suggested that anything could be analysed with the terms of Foucauldian research, and it would be difficult to think of a phenomenon negating the Foucauldian power (Alvesson and Sköldberg, 2009). These points could be counter-argued with the fact that Foucault's aim was not to be politically correct; and he was interested in the micro context, and in specific forms of power. For example, capitalism is not the focus of his work; the political rationality that binds the subject and power together is the concern here (Rabinow, 1984).

Another point of criticism is about the pessimistic view of knowledge that does not distinguish the positive effects of advances in areas such as technology and medicine (Dreyfus and Rabinow, 1986). Because everything is 'problematic' in Foucault's work, there is no hierarchy created which could separate what is especially worth critically scrutinising compared to what is less problematic (Dews, 1987). This potentially creates an apolitical viewpoint for the research. This criticism can be contested with the idea that the intention to problematise all power-knowledge relationships was consciously taken by Foucault. He described his own position to be, not one of apathy, but of "hyper and pessimistic activism" (Rabinow, 1984, p.343). With his interest in micro resistance, Foucault states that "everything is dangerous, which is not exactly the same as bad. (…) I think that the ethico-political choice we have to make every day is to determine which is the main danger" (Rabinow, 1984, p.343). This reflects the importance of trying to observe and resist the main danger in any specific time and context, and "to choose the least dangerous of several dangerous alternatives" (Alvesson and Sköldberg, 2009, p.258).

Foucault's radical constructivist stance - as evident in the statement: "Discipline makes individuals" - (Foucault, 1977) has also been criticised by scholars for depriving human subjectivity of its agency (Minson, 1985). In the later work of Foucault, during the ethical phase of his research, his epistemology gave more space to individual agency than before. Foucault claims the individual subject, who is a construction of power/knowledge relations, can loosen their conditions of ruling by becoming an agent of resistance. The activism in

Foucault's work is not linked with attacking institutions or persons; the main objective is rather to question a technique, a form of power. In a series of oppositions to the power of men over women, psychiatry over people with mental illness, medicine over population, etc., the struggle is not for or against the individual, but rather against the "government of individualisation"[19] (Foucault, 1982, p. 781), and against the privileges of knowledge. The ways in which knowledge circulates and functions and its relations to power (regime of truth) are the things that are examined in Foucault's work. This government of individualisation categorises the individual, attaches them to an identity, and imposes a law which they themselves and others must recognise in them. Put simply, this technique makes individuals subjects.

The originality in Foucault's work comes from its refusal of traditional categories in social sciences; these were replaced by new conceptualisations. Foucault's genealogy turns our gaze from one type of historicity and reveals multiple versions of the history of the same reality. Because power is intricately intertwined with knowledge, Foucauldian thinking asserts that there is no 'innocent' knowledge, and it dismantles the notion of neutral, rational, and progressive research. The knowledge that comes with emancipatory claims can also contribute to certain forms of subjectivity due to defining the conceptions and the ideals of its claims that are linked with 'normality'. Even progressive poststructuralist research can include a dimension of power that creates a desirable state of subjectivity and is deemed more playful and fluid; nevertheless, the monitoring and normalisation processes might still be in play in those researches, only in a more flexible form (Alvesson and Sköldberg, 2009).

3.4 A Conceptual Framework to Explain the Construction of Old Age in Relation to Telecare

In this section, a conceptual framework is developed that aims to explain: a) the construction process of an old age identity, and b) the techniques through which the discourses surface, in terms of modes of objectification (as specified in Section 3.3.3). First, key concepts are identified that have been prominent in this chapter. Then links and assumptions are formed

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[19] "Everything which separates the individual, breaks his links with others, splits up community life, forces the individual back on himself, and ties him to his own identity in a constraining way" (Foucault, 1982, p.781).

between these concepts. At the end of the chapter, a refined version of the initial research question is presented that can guide data collection and data analysis in a more focused way.

Firstly, to clarify this thesis' understanding of telecare information systems, it is important to elaborate on how I define information systems. In its simplest form, information systems are formed of the components in Leavitt's Diamond (Leavitt, 1965) which has been a historically popular model in the IS field. It encompasses the sociotechnical aspects of information systems, and views change through the interlinked relationships between four components, as indicated in Figure 3.1. The *structure* in this model refers to the ways individuals are grouped within the work unit.
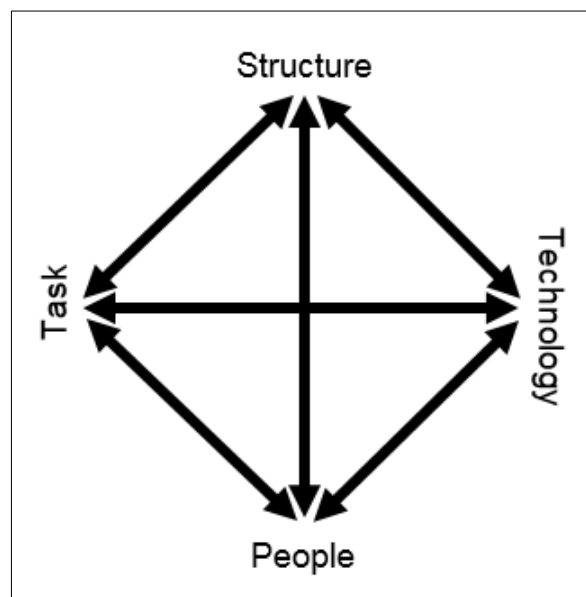
Figure 3.1 Leavitt's Diamond, adapted from Leavitt, 1965

The sociotechnical nature of information systems is a given in this thesis. I conceptualise information systems as sociotechnical *assemblages* (Kitchin, 2014), by expanding from Leavitt's conceptualisation. A sociotechnical assemblage is a complex system composed of many entangled "technological, political, social and economic apparatuses and elements that constitutes and frames the generation, circulation and deployment of data" (Kitchin and Lauriault, 2018, p.3). This definition of a complex sociotechnical system fits very tightly with this thesis' conceptualisation of information systems. Based on Kitchin's (2014), and Kitchin and Lauriault's (2018) conceptualisations, I am very specifically choosing to employ the concept of sociotechnical assemblage, amongst other possible variations in the literature

of sociotechnical systems. This is because the emphasis on the governmentalities in Kitchin's definition refers directly to the Foucauldian school of thought, which is at the core of this thesis. Kitchin classifies the apparatuses and elements which affect technologies as systems of thought, finance (business models), political economy, governmentalities, infrastructures, organisations and institutions, and so on (Kitchin, 2014).

Conceptualising information systems as sociotechnical assemblages is similar to Foucault's concept of apparatus – more commonly referred to as *dispositif* (Kitchin and Lauriault, 2018). He defines it as a "thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions – in short, the said as much as the unsaid" (Foucault, 1980b, p.194) which maintain the exercise of power within society.

3.4.1 Key concepts

After the conceptualisation of information systems in the previous section, this section now introduces definitions for the most pertinent concepts and constructs taken from the Literature Review and Conceptual Framework chapters. They have been contextualised in view of this thesis' objectives and the main research question, and are utilised in the construction of an explanatory model.

Concept	Definition
Discourse	A historically variable, yet certain in context, way of speaking or writing to specify how the things are, and how they are done
Dividing practices	The mode that divides the subjects, either within themselves or from others, through such processes as: regularisation, medicalisation, and exclusion through scientific mediation; the means through which institutions objectify the human subjects
Governmentalization / Governmentality	The way in which the state exercises control over bodies and the population. It also refers to the way in which people are taught to govern themselves, through shifting

	power from a centralised authority - like a state or institution - and dispersing it among a population (MedAnth, 2010).
Grand discourse	The overarching narrative that comprises multiple and distinct perspectives, and usually continuous over a specific time frame
Human kind	Group of people about which we have systematic and general knowledge through law-like generalisations about them, their actions or sentiments
Identity	A limited and temporary fixing for the individual. In this thesis, identity refers to the abstraction of an identity, normalised and represented through policies and institutional practices.
Information	Data of service users that is digitally stored in information systems
Information and communications technology (ICT)	Collection of hardware and software within the telecare information systems
Normalisation	Construction of an idealised norm of conduct; the processes through which ideas and practices become taken for granted
Old age	There is no definite biological stage for old age. The most common form of referring to old age is on the basis of chronological age. However, this is a normalised construction, because 'old age' as a categorical label appears natural and obvious (NCPOP, 2009). The construction of old age varies culturally and historically; the pension age (65 years in the UK in 2017) is usually the threshold for old age for governmental and administrative purposes.
Power	A repressive and productive relation that is omnipresent in all levels of social relations. Each type of power - such as: sovereign, pastoral and disciplinary power - consists of a "particular set of techniques, rationalities and practices designed to govern or guide people's conduct" (O'Farrell, 2007).
Power/knowledge	Mechanisms of power produce knowledge by collecting information on the activities and existence of

	individuals. These types of knowledge reinforce further exercises of power and further knowledge gathering.
Scientific classification	The ways to study, organise, define, and codify human attributes based on grand categories of the *normal* and the *deviant/pathological*, often using the status of sciences and financial justifications

Table 3.1 List of key concepts and constructs in this thesis

3.4.2 Relationships between theoretical concepts

In this section, the relationships between concepts will be given in the form of a list. These relationships highlight the elementary assumptions and abstractions of this thesis. They take account of old age as a constructed identity, and implementation of telecare technologies as a new context. In the Analysis and Discussion chapter, I will reconceptualise the aspects of Findings to show how they represent the relationships below. In addition to forming relationships, a simple illustration is presented below that links the elements of this thesis together.

1) Old age discourses surface through scientific classification practices.

2) Old age discourses surface through institutional dividing practices.

3) Policies and institutional practices socially position older people.

4) The old age identity reflects on old age discourses.

5) Grand discourses of old age are enacted and altered through policies and institutional practices that relate to ICTs.

6) Telecare information systems are sociotechnical assemblages.
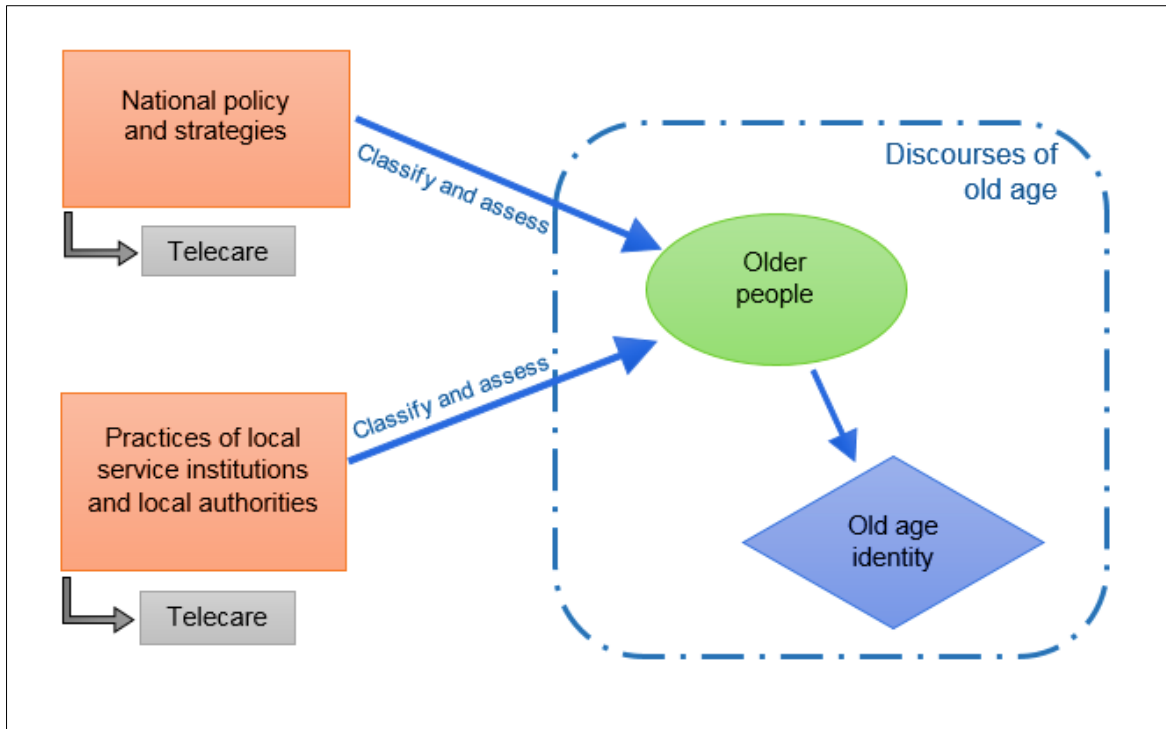
Figure 3.2 Production of knowledge about old age and the formation of identity (Own illustration)

In the diagram, telecare is depicted as a subset that provides a context for the national policies and local practices through which knowledge about old age is produced. Old age identity is not solely reproduced by telecare related policies or practices, but the modes of power/knowledge in the presence of telecare may enact, change, or expand old age discourses.

3.4.3 Research questions

This chapter has defined the conceptual and analytical frameworks that will be employed to answer the main research question. In light of the analytical models, conceptualisations, and inter-concept relationships introduced, the initial query "How is the identity of old age constituted in relation to telecare technologies?" can be divided into 3 parts for more refined research questions:

RQ1: Through which scientific classification practices do old age discourses surface in relation to telecare?

RQ2: Through which institutional dividing practices do old age discourses surface in relation to telecare?

RQ3: How do social care policies and practices of telecare service institutions enact and change the grand narratives and the identity of old age?

For the first 2 questions, mapping out those practices from the case study data is essential. This entails a more descriptive account of the data whilst applying the framework of Modes of Objectification, as identified in Section 3.3.3. The third research question deals directly with the construction of an identity for old age, which is constituted in relationship with discourses. The grand discourses that relate to these questions have been presented in the Literature Review, under Sections 2.1.5 and 2.16.

Mapping out the scientific classifications and institutional dividing practices (in RQ1 and RQ2) will elaborate on those practices that produce knowledge, enact certain discourses, and socially position individuals in certain ways. The third question calls for explanations that take into account the ageing discourses enacted and generated in relation to telecare, and links them with the current identity of old age.

The next chapter on Research Design elaborates on the case study conducted and on the techniques of data categorisation applied in order to reach the explanations sought via the research questions. It will demonstrate the steps between describing and explaining data.

4 Research Design

4.1 Introduction

The conceptual framework developed in the previous chapter has helped with the creation of specific research questions for this thesis. The general overarching question was developed to be: "How is the identity of old age constituted in relation to telecare technologies?" For further specificity, this question can be broken down into various sub-questions:

> **RQ1:** Through which scientific classification practices do old age discourses surface in relation to telecare?

> **RQ2:** Through which institutional dividing practices do old age discourses surface in relation to telecare?

> **RQ3:** How do social care policies and practices of telecare service institutions enact and change the grand narratives and the identity of old age?

For the creation of the main research question, Alvesson and Sandberg's *gap-spotting* typology (2013) has been influential. The table below shows the basic modes of gap-spotting, which generally guide the construction of research questions and research design of studies. One of the modes of gap-spotting, namely *application spotting*, is used as the dominant mode in this thesis.

Basic gap-spotting modes	Specific versions of basic gap-spotting modes
Confusion spotting	Competing explanations
Neglect spotting	Overlooked area
	Under-researched
	Lack of empirical support
	Lacking a specific aspect
Application spotting	Extending and complementing existing literature

Table 4.1 Basic modes of gap-spotting and their specific versions, adapted from Alvesson and Sandberg (2013, p.29)

The 'application spotting' mode searches mainly for a lack of particular perspectives in a specific research area, and claims that the literature can be extended or complemented with different perspectives. In the Information Systems literature, there has not been a wide range of interactions with the field of gerontology, sociology of old age, or ageing studies. Critical social theories, including Foucauldian analytical frameworks, are widely employed in critical IS research. However, the use of these frameworks has been rarely extended to social care information systems in ways that can explain the practices of governmentality and bio-politics. In a similar fashion, concepts in and frameworks for ageing, cultural, and gender studies have not been widely disseminated in intersection with the knowledge of information systems. This indicates under-researched areas in the study of technologies that are mainly targeted at a certain demographic and/or minority group identities. In this study, this demographic is the older people.

Since this study also employs the principles of critical theory, a wide range of critical IS studies were investigated in the Literature Review chapter. Mitev argues that, "The use of Habermassian critical theory in management studies has been criticised for tending to propose a modernist grand narrative whose seemingly emancipatory discourses can be, or become, a form of normalising, disciplinary domination" (Mitev, 2003, p.10). She reflects on how various critical social and power theories have been used by IS researchers since the 1990s, including Foucault's concept of power/knowledge; institutionalisation; power and rationality; structuration theory; social shaping of technology; and gender theories (Mitev, 2003).

Alvesson and Sandberg emphasise that it is not uncommon to have combinations of different modes working together (2013). Looking closely at their 'gap spotting' modes, we can observe that this thesis can fall also under the *under-researched* version of 'neglect spotting'. To give an example, Fox (2011) uses the mode of 'neglect spotting' in an under-researched area about boundary objects and technology adoption, and reports that, despite a growing body of research, his area of interest "remains sociologically under-theorized" (Alvesson and Sandberg, 2013, p.32). He constructs his own research questions by claiming that, "while existing literature raises important questions about 'which objects might perform such functions … more needs to be known about how they function and what makes them effective'" (Fox, 2011, p.73; Alvesson and Sandberg, 2013, p.32). This thesis entails a similar approach: while the existing information systems literature informs us of the impacts of technologies on everyday life in terms of experiences, more needs to be known about how

technologies can have impacts on certain group identities by disrupting, expanding, or magnifying the discourses around them.

Engagement with these critical discussions was highly influential in the development of the aforementioned set of three specific questions (as derived from the primary general question: "How is the identity of old age constructed in relation to telecare technologies?").

4.2 Case Study

To answer these specified research questions, this thesis takes a case study approach. The rationale behind this choice is that case studies are the preferred method of doing qualitative social science research when: a) the research questions are posed by asking "why" and "how"; b) the investigator does not control the events studied; and c) the focus is a contemporary topic in a real-life context (Yin, 2009). A case study is also relevant when the study requires an in-depth description of the social phenomenon studied.

Contrary to some common preconceptions, case studies are not only used for exploratory research, but can be used for three purposes: namely, a) exploratory, b) descriptive, and c) explanatory. The conceptual framework of this research aims to develop explanatory statements for the end analysis, when the concepts of the conceptual framework are transformed to comprise a theoretical framework.

METHOD	(1) Form of Research Question	(2) Requires Control of Behavioral Events?	(3) Focuses on Contemporary Events?
Experiment	how, why?	yes	yes
Survey	who, what, where, how many, how much?	no	yes
Archival Analysis	who, what, where, how many, how much?	no	yes/no
History	how, why?	no	no
Case Study	how, why?	no	yes

Figure 4.1 Relevant situations for different research methods, taken from Yin, 2009 (p. 35)

As shown in Figure 4.1, case studies focus on contemporary phenomenon. Telecare and the effect of the technologies on the discourses of old age are good examples of contemporary events; these technologies have an ongoing impact on society as a whole, mainly on the older population in an intergenerational way (i.e., all younger generations will be part of the older population with time). As the aim of this thesis is to explain how telecare information systems expand and magnify discourses of old age, an explanatory case study model has been adopted.

There are similarities between the methods applied in case study and those used in historical study. However, unlike a conventional historical study, a case study can handle a variety of evidence - which includes documents, interviews, observations, and artefacts - at the same time. It is encouraged to use multiple sources of evidence in case studies in order to develop "converging lines of inquiry, a process of triangulation and corroboration" (Yin, 2009, p.133). Qualitative studies mainly include interviews as the primary source of evidence, however, as Walsham states, "interviews *should* be supplemented by other forms of field data" (Walsham, 2006, p.323). These forms can include such forms as media and other publications, internal documents, direct observation or participant observation, web-based data from e-mails or websites, and for multi-method studies (qualitative and quantities methods used together), surveys.

4.2.1 Research design

A research design is the blueprint for any research; it deals with four problems or decision points on: 1) the questions to study, 2) which data is relevant, 3) which data to collect, and 4) how to analyse the findings (Yin, 2009). Justifying a case study method requires a specific, real-life case instead of an abstraction, such as an argument or a topic.

In the design part of research, theory development is essential to see how the use of case study serves the purpose of developing or testing a theory. In this thesis, the case study will help to show how the status of sciences, governmental language, and the classification of older people in the presence of technologies and of information systems strategies affect what is already generally accepted about old age.

The appropriate theory for this research is an explanatory one. That is to say that the purpose of this explanatory effort and the topics that are likely to be the essence of the explanation

are important elements to focus on (Yin, 2009). The simple blueprint of the study requires theoretical propositions that create "a story about why acts, events, structure, and thoughts occur" (Sutton and Shaw, 1995, p.378). The theoretical propositions in this research include assumptions that: a) discourses affect identities constantly, and b) dominant conceptualisations of old age are malleable and susceptible to change through the implementation of technologies as well as the language surrounding technologies.

In this thesis, the relevant theory of analysis is societal. Although a common theme for case studies is to evaluate publicly supported initiatives (e.g., local programmes), the objective of this particular study is not evaluation. Instead, the focus is to aggregate data in order to be able to infer societal impacts and generate useful conceptualisations and conclusions. By acknowledging this, the answer to the question of 'how a certain public programme is supposed to work' is not key to the design of this research.

4.2.2 Case study design

This thesis adopts a single case design, which is illustrated in the first column of Figure 4.2. As Yin states, "[A single case] can confirm, challenge, or extend the theory, (…) [and] determine whether a theory's propositions are correct or whether some alternative set of explanations might be more relevant." (Yin, 2009, p.93). One of the rationales for a single case is that of the representative case, for which the aim is to capture the conditions and circumstances of a commonplace situation. In this study, the pervasive adoption of telecare technologies in publicly supported and local-authority-led programmes creates an everyday situation for the use of telecare systems by older people, whose data are aggregated and used through monitoring centres. These services are recommended to people, mainly of old age, not only by the Adult Social Care teams attached to the authorities, but also by hospital discharge units, general practitioners, health and social care professionals, family members, and by other telecare users, making telecare an embedded part of life.

This case study is holistic in nature because a single unit of analysis (as illustrated in the first row of Figure 4.2) will be analysed. However, the scale of the study can be split into three analytical levels, subsumed under: 1) the macro level (national policy), 2) the meso level (local government and telecare partnership), and 3) the micro level (telecare monitoring centres). These levels do not serve different outcomes for the end analysis; rather, each one

of them concretises the other two levels. The holistic design is used because "the relevant theory underlying the case study is itself of a holistic nature" (Yin, 2009, p.60).
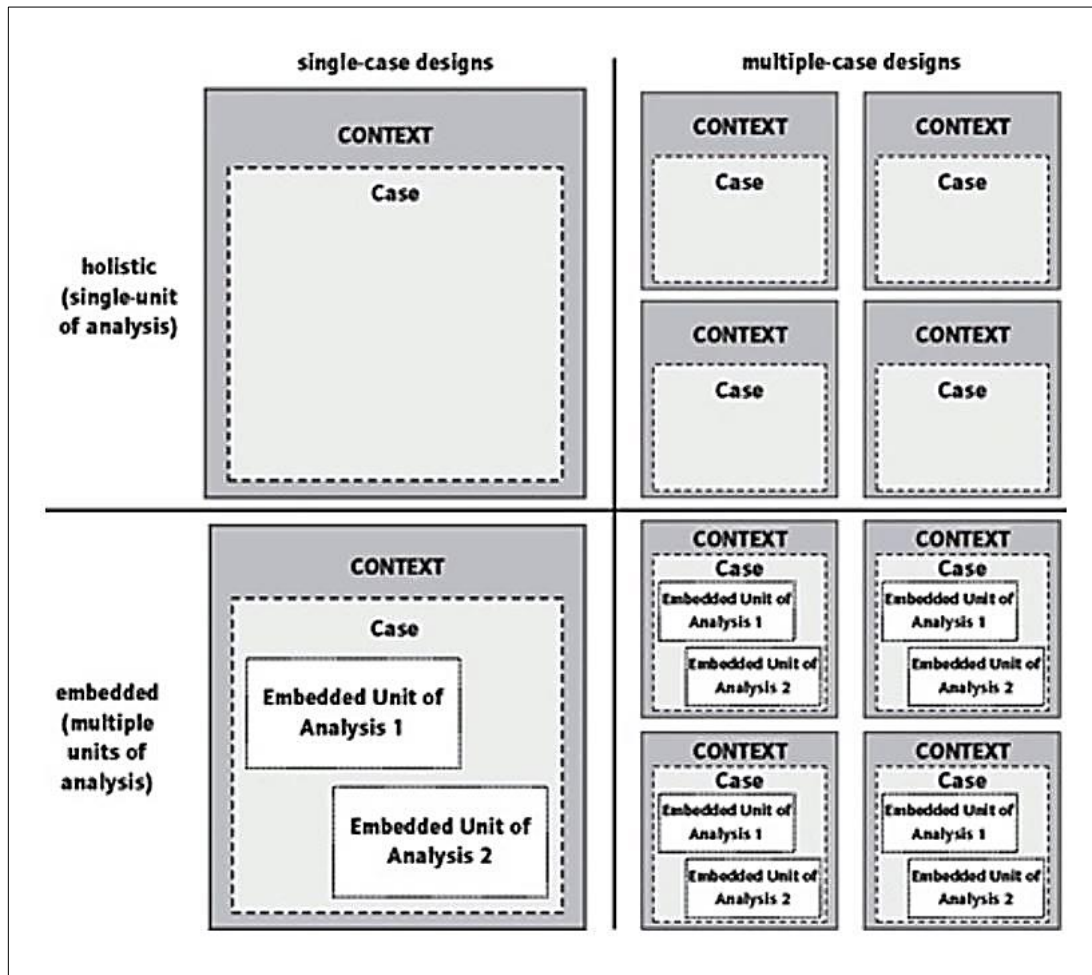
Figure 4.2 Basic types of design for case studies, taken from Yin, 2009 (p.92)

The unit of analysis in this thesis is the policies and strategies of government, and the practices of social care authorities in relation to the ageing population within the domain of telecare information systems. The Surrey Telecare initiative forms the empirical part of the study. The objective is to link the language and enactment of policies and procedures with the discourses of old age, while using the concepts as defined in the Conceptual Framework chapter. The use of principles of discourse analysis is the same for each analytical level (macro, meso, micro) of the case study, while the Foucauldian modes of objectification create the premises for a holistic analysis. In the end, the inferences of the study will be made with reference to a societal/national level; hence the documentary information - as explained

in the next subchapter, Data Collection - will be an important source of evidence as well as the inception point of data clustering.

The preliminary theoretical framework for the case study design corresponds to the conceptual framework chapter of this thesis. Multiple sources of evidence – namely: documentary information, archival records, interviews, and observation – are employed, which all contribute toward increasing the construct validity of the case study. Finally, a *chain of evidence* is presented to increase the reliability of the information. The principle of the chain of evidence is to help other researchers "to follow the derivation of any evidence from initial research questions to ultimate case study conclusions", and "to trace the steps in either direction" (Yin, 2009, p.139). Yin's diagram has been modified in Figure 4.3 to reflect how each element in the chain of evidence corresponds to a part of this thesis.

Yin's chain of evidence	Chain of evidence in this thesis
Case Study Report	Analysis and Discussion (Chapter 6)
↕	↕
Case Study Database	Documents collected during case study, interview audio files, observation notes, archival data from government websites and other online resources. Stored in fieldwork notebooks/folders, on Mendeley Reference Management Software, and on physical drives
↕	↕
Citations to Specific Evidentiary Sources in the Case Study Database	Quotes from interviewees and local documents, as given in Findings (Chapter 5)
↕	↕
Case Study Protocol (linking questions to protocol topics)	The use of a case study protocol which indicates what data were to be collected, given in Research Design (Chapter 4)
↕	↕
Case Study Questions	The objectives presented in research questions, and the interview questions, given in this and previous chapters

Figure 4.3 Chain of evidence

4.2.3 Case selection

In this section, I will discuss the context for the case study and for the empirical choice of Surrey Telecare Partnership. As a site for the exploration of telecare services and for gathering insights into user data aggregation technologies in action, a locally implemented telecare initiative was required for the actualisation of this case study. The local telecare partnership called Surrey Telecare is funded by the local authority in Surrey. Because the local authority represents localised government, one can draw parallels to macro level data with the data collected during case study. Due to the initiative's large-scale implementation within the county for at least a year before the case study and its close proximity to London, the case proved to be valuable.

Surrey Telecare is an initiative set up in 2011/12 by the service providers of Surrey's district and borough councils, Surrey County Council, and NHS Surrey to collaboratively raise awareness of telecare services and support the residents within the county. It is a partnership programme that involves 11 borough and district councils governing at the local level[20] and the overarching Surrey County Council that administers major local services in the county of Surrey.

At the top level, Surrey Telecare is commissioned by the Adult Social Care department of Surrey County Council, who are responsible for caring for and protecting "the most vulnerable people in the community, as well as providing information and advice to all Surrey residents" (Surrey County Council, 2017). The commissioning process entails identifying, buying and monitoring those services that are needed by the residents; such services include: mental health services, telecare, housing, meals on wheels, and so on.

As a student researcher, I got in touch with the Head of Community Support Services, and the senior managers of Adult Social Care Commissioning of Surrey County Council in August 2013. After receiving an affirmative reply in October 2013, I was invited to discuss my proposal with the Commissioning and Telecare Lead team in November 2013. Field

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[20] The borough and district councils of Surrey are as follows: Elmbridge Borough Council, Epsom and Ewell Borough Council, Guildford Borough Council, Mole Valley District Council, Reigate and Banstead Borough Council, Runnymede Borough Council, Spelthorne Borough Council, Surrey Heath Borough Council, Tandridge District Council, Waverley Borough Council, and Woking Borough Council. These boroughs and districts have their own dedicated community alarm and telecare teams (apart from Mole Valley District Council, and Reigate and Banstead Borough Council, which are the regions with a single mutual dedicated team) that operate under Surrey Telecare (Surrey Telecare, 2012).

access was only granted in summer 2014 after meetings and negotiations that took place between commissioners, telecare leads, and research, consultation managers, and me as a researcher. These introductory meetings took place at Elmbridge Borough Council Civic Centre in Elmbridge, Surrey. The field access into two telecare control rooms (monitoring centres) was made possible after this period. Please see the section on interviews and observations for further information on the timeline.

Figure 4.4 Borough and District Councils of Surrey, taken from Surrey County Council (2013). The introductory meetings and the field access negotiation took place at the Elmbridge Borough Council Civic Centre in Elmbridge.

4.3 Data Collection

In this section, the methods and the sources of evidence employed in the study will be discussed. The two main methods of data collection have been through documents and interviews. The other methods used were direct observation (along with the interviews), and archival records (along with the documents).

4.3.1 Documentation and archival records

Documentary information is relevant to almost every case study (Yin, 2009), and it can take many forms. This means that data collection plans are necessary to carry out the best data collection from documents. In this case study, publicly available information and guidance documents by the UK government, policy papers (white and green papers), and social care related industry and research reports have been chosen as the main sources of data collection. Administrative documents, such as internal records and local information documents, were also collected during the fieldwork and used alongside the public documentation. Please see Appendix F for a comprehensive list of references of all documents that have been collected and used as sources in the Findings chapter, as well as those key documents selected for the data thematisation process.

Health and social care publications of the NHS, UK Government, Department of Health, Surrey's local authorities, and of industry bodies in England were systematically searched on the Internet, mainly using the official sites of the aforementioned authorities. The themes of care technologies and/or old age were the main topics looked for in the documents to classify them as evidence for the case study. Those documents that presented information on care in old age, and those that offered telecare and other care technologies as solutions, were prioritised while forming the evidence base for documentation. Some documents offered archival data, such as statistical data, made available by state or local governments.

In the next chapter, the findings are firstly organised and clustered around the preliminary themes that emerge out of these macro level documentary and archival evidence. Then the findings for meso and micro levels generate additional themes. Administrative documents collected during the fieldwork have also been utilised in data thematising and analysis stages. Some of these documents included archival data such as survey and performance data. These documents will be used to support interviews.

4.3.2 Interviews and direct observations

Qualitative interviews are one of the most important sources of data collection, which pose as "guided conversations rather than structured queries" (Yin, 2009, p.122), and "a powerful research tool" that has been extensively used in IS research (Myers and Newman, 2007,

p.23). Even while pursuing a consistent line of inquiry, the stream of questions in a case study interview seldom stays rigid, and rather becomes fluid. Interviews and observations in this case study presented the context at a) the local authority level where the planning and commissioning of telecare services take place (meso level), and b) the telecare monitoring centres where the installation planning, administrative work, interactions with technology and with the telecare users take place (micro level). Meso and micro level interviews and observations form the complementary base for the macro level data, as explicated in the previous section.

The use of interviews can involve a set of limitations like any other qualitative data collection method. Gaskell (2000), and Becker & Geer (1957) point out these potential limitations of interviews: the 'local language' may get lost on the interviewer because "the connotation of some ordinary terms may be quite different" (Gaskell, 2000, p.45); the taken for granted details might be omitted by the participants, which could contain important information; and the accounts are limited to the sometimes biased view of the participant. At the same time, transcribing interviews itself is an act of construction, and reflects preconceptions of the researcher.

It is not suggested that these limitations invalidate the method of interviewing (Becker and Greer, 1957); but rather these potential shortfalls are pointed out "for consideration to sensitize researchers to the problems and to act as a catalyst for better interviewing skills" (Gaskell, 2000, p.45). This thesis reflects on these limitations by the use of techniques such as not taking any account as the last version of a situation, and by attentively enquiring for more detail than the participant may offer as their first response to a question. In this way, active interviewing can be achieved.

Myers and Newman's (2007) model for the conduct of qualitative interviews in IS research offers invaluable recommendations for better interviewing skills. The guidelines followed in this thesis were:

- *Situating the researcher as actor:* This point refers to the identity of the researcher and how they situate themselves in the research. The interviewees received detailed emails about my research, my affiliated institution and department, and what sort of questions they can expect in an interview. Prior to this, during the period of negotiations for access into the field, the first contacts (commissioners, team leaders

and managers) were given longer descriptions of the project and information about the projected timeline.

- *Minimise social dissonance:* This point refers to minimising anything that may make the interviewee feel uncomfortable. To minimise social dissonance, each interviewee was asked at the beginning of the interview whether they would prefer to talk in the absence of a voice recording device. All interviewees, except one, were comfortable with voice recording. To conduct interviews at the telecare monitoring centres, I had contacted the manager of the centre, who later introduced me to the centre's operators. Moreover, before contacting the manager, I had been referred by the commissioners with whom I negotiated the fieldwork. Therefore, at each step, the actors in the structurally higher hierarchy of the Surrey Telecare initiative acted as buffers against potentially high levels of dissonance that might have occurred. Finally, appropriate language/jargon was used during the interviews, due to having studied information available on Surrey Telecare and on telecare technologies in general, prior to the first interviews.

- *Represent various voices:* Interviewees consist of people with different responsibilities in the local authority and at the local centres, from call centre operators to the manager commissioners. This is to encourage triangulation of subjects, and to reduce elite bias by preventing only one senior voice to emerge. Besides, data aggregation takes place at the monitoring centres, and this task is carried out by the call operators, who represent one of the most important voices.

- *Use mirroring in questions and answers:* "Mirroring is taking the words and phrases the subjects use in constructing a subsequent question or comment: mirroring their comments" (Myers and Newman, 2007, p.17). This practice prevents the researcher from imposing their language on the subject. Asking open-ended questions is one way of allowing space to use mirroring in subsequent questions and answers, which was practised during the fieldwork. Also, my role as an interviewer involved prompting, encouraging, listening, and directing the conversation, e.g. when moving from general to specific points.

- *Flexibility:* Semi-structured and unstructured interviewing requires openness and improvisation on the researcher's part. During the fieldwork, I reacted to answers in a flexible manner, e.g. by improvising new questions to ask based on the previous answers given, before moving on to the next planned question. I was also prepared to explore further and discover interesting and surprising lines of research. The interviews with the operators took place in the main control room, while they were carrying out their duties in front of the terminals. The call operators who were present in the closest terminals from the interviewee occasionally joined in to make quick remarks when the interviewee asked their opinion on a certain question that I had asked. These quick collaborations made the interviews richer and more interesting.

The focused interviews and observations at Mole Valley Control Room, Runnymede Control Room, and at the Surrey County Hall took place between August 2014 and February 2015. The interviews were tape-recorded, and therefore, I have kept "a truer record of what was said" (Walsham, 2006, p.323). Recording proved to be useful "for picking out direct quotes when writing up" (Walsham, 2006, p.323). Direct observations were made throughout a field visit, in those occasions during which other evidence (interviews) was being collected. Each focused interview did not exceed two hours, and observations took place during these day visits. For detailed information on interviews and observations, please see Table 4.2.

Date & Duration	Location	Interview with	Observation of
7 August 2014, One day	Mole Valley Control Room	The site manager, and a call operator	The setting, terminals, operators, their interactions with telecare users, interactions with the technology
21 August 2014, One day	Mole Valley Control Room	A call operator, and two other operators joining in during the interview	Operators, their interactions with telecare users, interactions with the technology

24 September 2014, Half day	Mole Valley Control Room	A call operator	Operators, their interactions with telecare users, interactions with the technology
25 September 2014, Half day	Surrey County Hall	Two managers of commissioning (combined interview), and the business intelligence consultant	N/A
23 February 2015, Half day	Runnymede Civic Centre	The telecare supervisor and the community services manager of Runnymede (combined interview)	Limited observation of the control room through glass from the next room. No access granted due to use of sensitive data[21]

Table 4.2 Site visits, interviews, and observations

After each activity of interview and observation, the field notes were consulted and read thoroughly before the next site visit. This practice encouraged the creation of a cohesive understanding of the scope of the telecare initiative, and of telecare information systems in general. The interviews and observations conducted in the case study combined two levels of analysis for this research: micro level (interactions with the telecare service users at the telecare monitoring centres at an individual level); and meso level (the process of commissioning, project lead, intelligence at an organisational level). The data collected during site visits were necessary to concretise the data collected in the form of macro level documentation.

As reflected upon before, the research questions and the projected end analysis lead this research to take documentary data as primary source of evidence. The saturation for the

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[21] Due to the collection of sensitive data at this control room for the use of police, observations of the monitoring centre and interviews with the Runnymede call operators were not possible.

empirical part of the case study was therefore reached successfully within a period of seven months. Gaskell suggests that "more interviews do not necessarily imply better quality or more detailed understanding" (2000, p.44), and this has been the case with this particular case study. As a supplement to the interviews, various email communications took place during and after the site visits to exchange local documentation that had previously come up during the interviews.

4.3.3 Questions asked

Different sets of questions were used during the interviews based on the profession and organisational responsibilities that the interviewees have. The case study started with an exploratory phase in which introductory questions were asked. Although no rigid structures were prepared in advance, there were a few key questions that gave a direction to the interviews at the telecare control centres, as shown in Figure 4.5 below. As each interview carried on, new questions to ask or areas to further investigate during the next visit unfolded.

Preliminary interview questions
- What are your responsibilities as a manager/call operator?   - How do people access telecare services?   - What do you do during a call with a telecare service user?   - What devices do telecare users have in their homes?   - What technologies do you use at the centre for communication and for data storage?   - How is the data that is stored in servers used later? How does Surrey County use the data?   - What does telecare mean to you?

Figure 4.5 Preliminary interview questions

4.4 Data Analysis

Before continuing to the Findings chapter, this section will address the data analysis protocol taken in this study. Combining Yin's general analysis guidelines with the *Ladder of Analytical Abstraction* by Miles and Huberman (1994) in Figure 4.6, the stages of packaging and repackaging the data will be outlined.
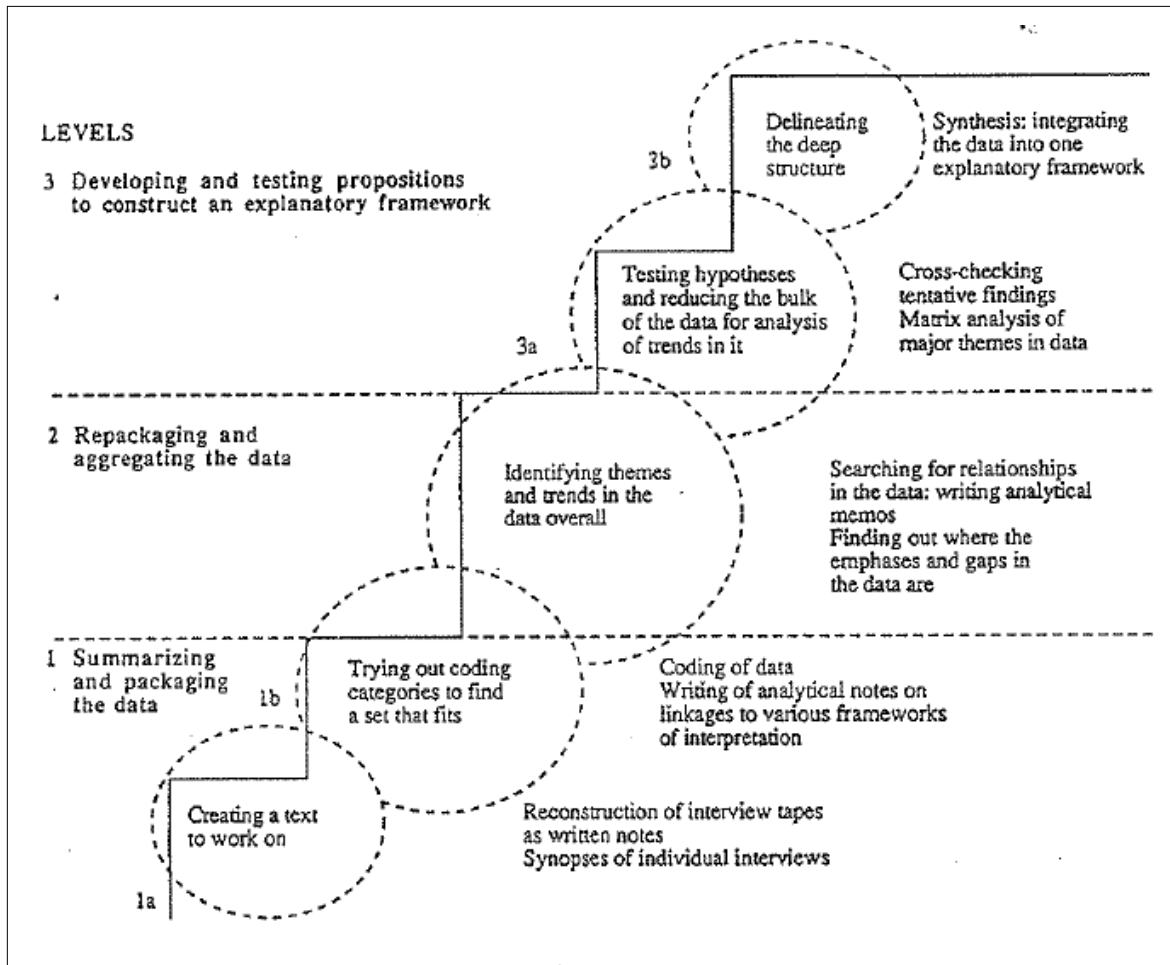
Figure 4.6 Ladder of Analytical Abstraction, taken from Miles and Huberman, 1994 (p.92)

Displaying the analytical progression from 'what' and 'how' to 'why' is an important task to pursue at this stage. Qualitative studies start with descriptive accounts of data and then move towards explanations. In Bernard's terms (1988, in Miles and Huberman, 1994, p.90), describing means "making complicated things understandable by reducing them to their component parts", and explaining is "making complicated things understandable by showing

how their component parts fit together according to some rules", where 'some rules' imply *theory*. The theory in this thesis is at the level of grand theory, whose set of concepts can be organised "in a network of propositional statements" (Miles and Huberman, 1994, p.91). Foucault's work explicitly attends to the question of power/bio-power and governmentality. The Foucauldian modes of objectification, as explicated in the Conceptual Framework chapter, lay out a set of propositional statements for the techniques of legitimation of power through which individuals become objects and subjects of discourses.

Going from describing to explaining is where the ladder of analytical abstraction comes into play. Starting with a text on which category coding can be done is the first step. Then the researcher moves to identify themes and trends within these categories; the aim is to "delineate the deep structure and then to integrate the data into an explanatory framework" (Miles and Huberman, 1994, p.91). This is how data transformation happens; when information is condensed, grouped, and linked. The next two sections reflect the processes of packaging and repackaging the data (Levels 1 and 2 of the Ladder of Analytical Abstraction), and the construction of an explanatory framework to link the data aggregations (Level 3 of the Ladder).

4.4.1 Packaging and repackaging the data (Ladder levels 1 and 2)

For qualitative researchers, the visual format that systematically presents information is the unreduced text itself. This uncondensed text is usually in the form of field notes written throughout the fieldwork, which the researcher attaches codes to. Because of the poorly ordered and bulky structure of written field notes, a full data set of distilled data needs to be presented.

In this thesis, interviews were transcribed prior to the analysis to prepare the data for the analysis process. The fieldwork notebook contained keywords as the interviews were taking place, which acted as indicators for the later summarising process. Concise descriptions of interviews were included in each interview's Word document. Observation notes were also included in the interview notes to link the answers to the fieldwork questions to those elements present in the telecare monitoring centre environment. The initial coding scheme was influenced by the information gathered on Surrey Telecare and on telecare policies in England. The data collected from the negotiation process (i.e., discussions to gain access to

the field) extended the coding scheme due to the rich introductory data supplied at the meetings with project leaders and commissioners. Then the first two interviews helped to expand the scheme even further. Some preliminary trends were observed, such as speech around 'independence', 'being a telecare client', 'being vulnerable', and historical comparisons of the technologies used at the centres.

Before packaging the observation and interview data gathered through fieldwork, a thematisation process was pursued for the packaging of the macro level data - namely documentation and archival records: policies, public guidance/information documents, industry reports, etc. For this process, all public documentation with the themes of older people, social care, and care technologies, which were published by the government or by the government-endorsed institutions / partners in social care, were placed in a 'pool' of relevant documents. The documents that were acquired during the fieldwork were also part of this database. An elimination process was put in place to omit those documents which had been only vaguely relevant to old age care. After the first elimination, 10 fieldwork documents and 40 macro level publications were present in the pool (Please refer to Appendix F for the references of these documents). The next step was to copy on a separate Word file each document's most relevant and interesting points, and the sections which directly referred to old and telecare technologies. Buzzwords and repeating trends were highlighted to give cues for the later analysis stage. The new summary files were much more condensed (not exceeding 2-3 pages on average) than the initial documents, some of which were longer than 100 pages due to covering a wide variety of topics.

The condensed versions were labelled with a shorter version of the document name and their publication year. With this practice, the aim was to put old age and telecare related policies in chronological order to be then used in the Findings chapter to outline background information on relevant policies. The following list shows a sample excerpt of preliminary keywords and key phrases after the first round of summarising the documents.

…

- Modernisation of social care services
    o Best value
    o Sophisticated solutions
    o Modern technology
    o Big Care Debate

- Localism
o Responsibilities given to local authorities - less centralised care systems
o "Social care is not solely the responsibility of the state"
- Value of technology
o Preventive and peace of mind contributions
o Security and safety
o Widening housing options
o Greater control over own life
- Consumerism and choice
o Bespoke configuration of technologies – flexibility
o Living life to the full
- Benefits to older people
o Helping older people to live better and more fulfilling lives
o Giving older people independence
- Vulnerable nature of old age
- Misconceptions
o not intended to replace human contact
- Better to prevent/postpone dependency (first seen 2010)
…

Figure 4.7 An excerpt of preliminary keywords and phrases

The high volume of data and the recurring themes in documents made it necessary to further reduce the data for categorisation. The macro level documents mainly consisted of government publications, aimed to inform the public and the industry. The documents that contained the highest number of themes and preliminary codes related with old age and care technologies were selected in the second cycle of reduction, and 7 of them were selected that could be representative, content-wise, for the rest of the documents. One commonality between the selected publications was the presence of a *foreword* at the beginning, which was intended to present a condensed version of the document, usually written with the personal voice of a politician. Techniques of thematic coding and of discourse analysis were employed using Fairclough's foreword analysis of state publications (Fairclough, 2013) to thematise the forewords of the seven documents. What paved the way for data grouping were the research questions combined with the explanatory power of the conceptual framework of this thesis. Firstly, the sentences in which a recurring and/or an interesting theme was observed were copied off from the text. Then these sentences were given codes with such keywords as: 'choice', 'control over own care', 'dependence', 'independence', 'locality', 'modernisation', 'use of statistical data', and so on. Based on the rate of occurrence,

interrelatedness and the thought-provoking value of these codes, the clusters were grouped into overarching groups, with each group incorporating a set of interrelated themes. This repackaging process and the end result of main themes will be elaborated on in the next chapter (Findings).

In addition to the forewords, what constitutes the second part of macro level data packaging is a combination of over 20 illustrations, diagrams, case descriptions, and quote bubbles. These have been taken from 13 selected white papers, green papers, guidance documents, flyers, and easy-read government documents, which are part of the 40 macro level documents in the pool. The purpose is to investigate whether the graphics carry the meanings attached to key themes, and to identify emerging new themes, if any, in addition to those obtained through the thematisation of forewords. The assumption is that the graphics and other forms of non-textual information operate through a visual method rather than a textual/verbal one, because "very often visuals and 'verbals' operate in a mutually reinforcing way" (Fairclough, 1989, p. 28). The end purpose is to concretise and expand those themes that have been identified in the foreword coding. I name this step as *Concretisation Step 1*.

For all meso and micro level data - including local documents, interview data, and observation notes - another iteration takes place. In *Concretisation Step 2*, the primary themes of the macro level are used to classify meso and micro level data. At the same time, any emerging themes from meso and micro levels are investigated. The reason why the thematisation in this thesis starts at macro level is due to the assumption that macro level policies and strategies find their place in organisational and individual levels in terms of the use of language, implementation processes, and enactments by actors. Please see the figure below, which illustrates the iterative process of data thematisation that is undertaken in this thesis. The concretisation of data categories at each level of iteration is a step towards establishing validity and practising triangulation.
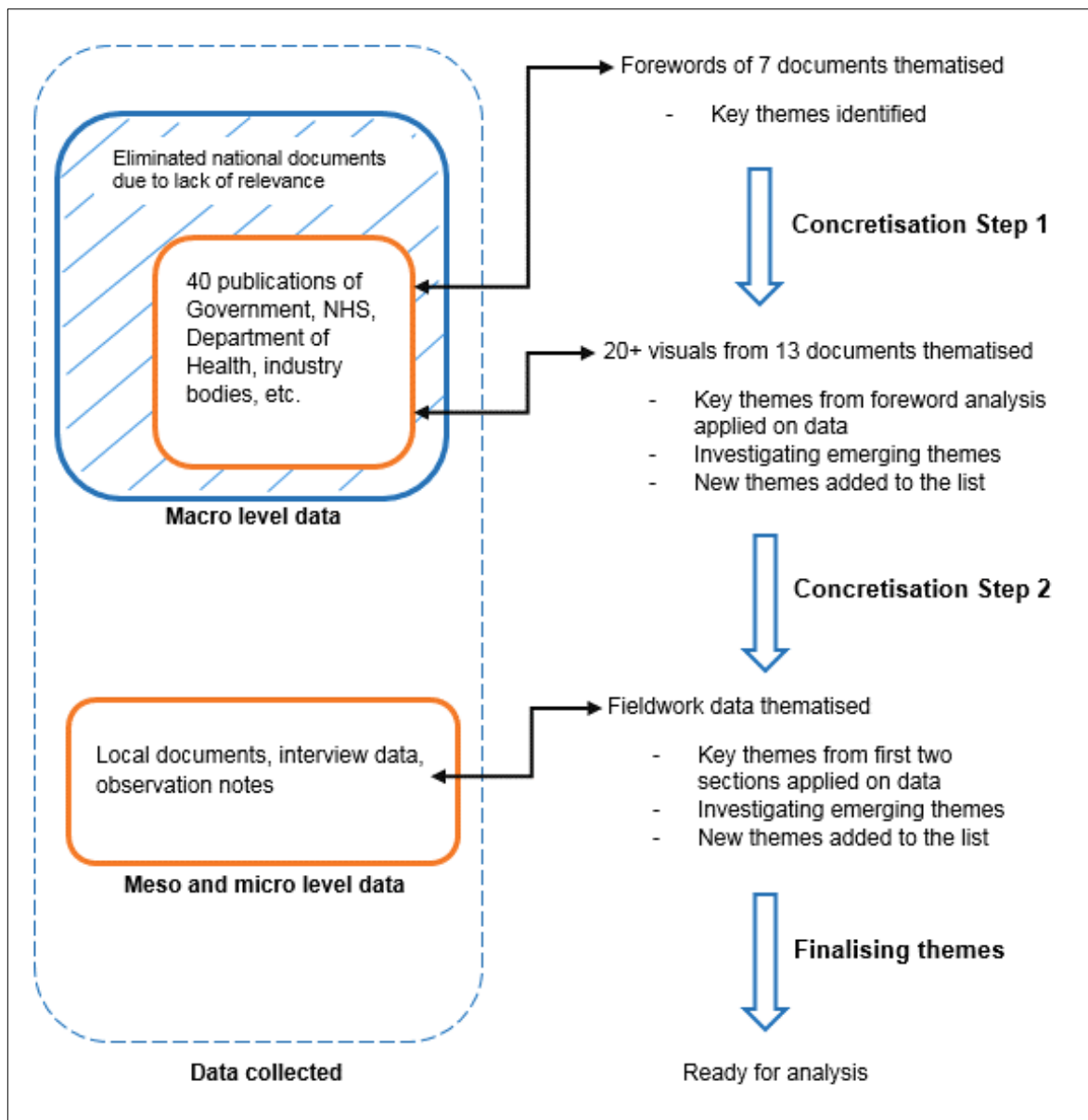
Figure 4.8 The iterative process of data thematisation (Own illustration)

4.4.2 Constructing an explanatory framework (Ladder level 3)

The emerging codes and overarching themes serve to construct an explanatory framework that is based on the initial conceptual framework specified. As reflected upon earlier, the aim is to "delineate the deep structure and then to integrate the data into an explanatory framework" (Miles and Huberman, 1994, p.91). The data may be packaged, clustered, and repackaged, but the interesting part of the case study unfolds when the data aggregations are linked together.

According to Habermas (1972), the three basic forms of knowledge interest are: 1) technical, 2) practical-hermeneutic, and 3) emancipatory interest. Although this research does not strictly adhere to the emancipatory framework of Habermas, the emancipatory knowledge interest is its main form of interest. This knowledge interest comes from critical theory approaches, and the attention is focused on power relations. Although this thesis does not aim to liberate the subject from repressive relations, the first element of the emancipatory interest is taken more closely as a guideline, which is to critically examine ideologies, interests, and identities. We can conclude that the Habermasian definition of knowledge interests proves to be limiting for postmodernist work in general. Foucauldian analyses take a distance from hermeneutic issues (Dreyfus and Rabinow, 1982), because the critique of institutions, identities, and governmentality is not driven by a hermeneutic quest for deep meanings, or an appeal to universal classifications (McGrath, 2005). Also the conceptualisation of the subject in this thesis, which is formed upon "the forms of description and action" (Hacking, 2002; p.82), contradicts the emancipatory principles of Habermas. This means that liberation in Habermasian terms is not a concept that can be applied to this work. As Klecun-Dabrowska (2003) argues, emancipation can arise from *enlightenment*; challenging those common perceptions about technologies, by revealing different rationalities and conflicting legitimisation processes, leads to enlightenment. Creating some degree of enlightenment about telecare information systems stands as an ambition for this thesis too.

Using a chain of evidence and forming links between concepts, this thesis aims to generate meaning. Miles and Huberman's model is implemented in various streams of qualitative research. This study takes an approach that is influenced by Foucauldian discourse analysis and the genealogical method, while conducting a thematic analysis on all data collected. The Conceptual Framework chapter specifies that genealogy of the modern subject looks at and

analyses discourses and practices that deal with knowledge, power, and the subject. Studying the problematisations of the subject, of power/knowledge, and of governmentalisation aims to discover points in time during which particular discourses have emerged and been reinforced by techniques of institutions and government, and were rationalised to reflect "objective" truths.

The linkage of the aggregated data provides a new insight into the discourses of old age identity. The presence of telecare technologies creates a new context in which these discourses and the identity of old age can potentially undergo changes in terms of being expanded or altered. The modes of dividing practices, scientific classifications, and technologies of self in the regime of bio-power explain the techniques by which people are turned into objects and subjects of dominant discourses. In this thesis, the two modes of scientific classifications and dividing practices will be taken as the basis of analysis. As is also evident in the research questions, the questions draw links between the techniques as to how old age discourses surface with these two modes of objectification. The practices of self-subjectification (the third mode of objectification) involve perceptions and experiences of older people, as this mode is concerned with the creation of subjectivity by people's own means. As in Hacking's *human kinds*, "kinds are modified, revised classifications are formed, and the classified change again, loop upon loop" (Hacking, 1995, p.370); the classifications of subjects of old age affect how individuals think of themselves, their self-worth, and how they remember their past. If we consider scientific classifications, dividing practices, and technologies of self to be three parts of the same circulatory loop of subjectivity formation, my interest lies on the side of the loop that depicts 'technologies of regulation and collective control' (Powell and Biggs, 2000), and not on the side that reflects how these practices are fed back and forth to the subjects of old age. By studying a combination of classification and dividing practices, I will be investigating how professionals study and classify individuals, and how governments and institutions discipline, divide, and regulate these groups.
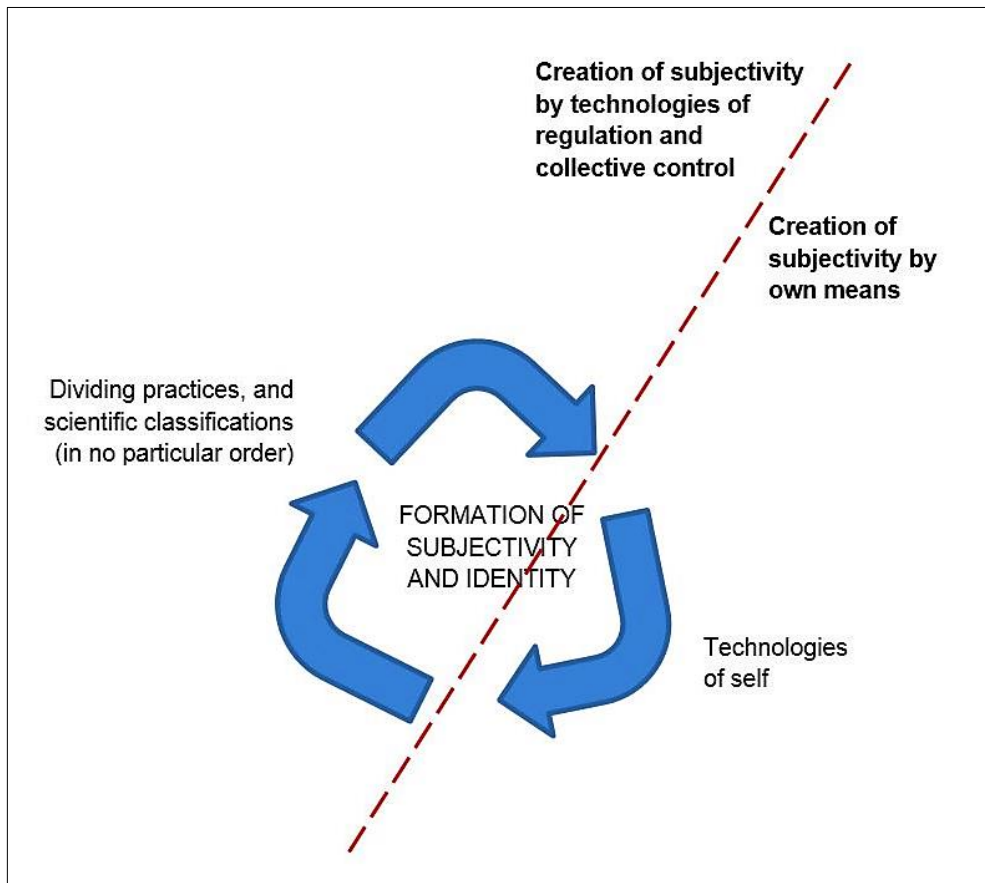
Figure 4.9 Modes of objectification (Foucault, 1982) in a loop with each other, drawing from Hacking's looping effects in subjectivity formation (Hacking, 1995; 1999) (Own illustration)

Although I am informed by literature about how *technologies of self* play out in the formation of subjectivities, this domain of research is not my main interest in this thesis. Foucault's framework of modes of objectification forms a good match with this project, even though it could be perceived as a limitation that this thesis studies only two of the three modes of objectification. However, not crossing over to the subject's own knowledge formation side (to investigate the third mode) provides a substantial advantage, in that it delves deeply into the policies of the state and the practices of social services institutions. This approach is especially useful in enabling me to focus with more capacity on the emergence and consolidation of those discourses articulated by professionals, institutions and governments that assess, scrutinise, and validate older people as a distinct demographic group (Powell and Biggs, 2000). I believe that this constitutes an appropriate subject by itself, to present within the scope of this thesis. The study of self-subjectification practices of old age is an extensive and worthwhile project on its own, and I will strongly consider it for further research.

4.5 Generalisation and Theory Building

This section will briefly elaborate on the tradition of generalisation in the field of information systems. This will be followed by an explanation of how the findings of this study are generalised, and how this translates into a theory.

Theory development is not only a facilitator of data collection but also creates a premise upon which the generalisation of case study results will take place. Analytical generalisation is one mode of generalising the results, which is the type of generalisation used in this thesis and the most relevant type in case studies (Yin, 2009). This type of generalisation is also known as *theoretical elaboration*, because "the findings from qualitative studies of cases or instances of phenomena are most appropriately generalizable to … theoretical propositions … and not to universes or populations" (Schwandt, 2007, p.5).

Prominent IS researchers such as Walsham (1995), Klein and Myers (1999), and Eisenhardt (1989) have described the ways through which to build theories in case studies. Generalisability of empirical descriptions to theory is a well-developed notion in IS or in those fields from which the IS community regularly draws theories. To encourage more efforts in the IS community in terms of generalising, Gregor (2006) and Avgerou (2013) urge IS researchers to advance causality and explanation in their studies. This can be achieved through providing a form of generalisation.

Baskerville and Lee's Generalisability Framework (2003) below shows four dominant types of generalisability that are used in information systems research. This thesis fits in the category of the <u>ET</u> Type (Generalising from empirical statements to theoretical statements). Generalising from description to theory also aligns well with the Ladder of Analytical Abstraction, in which the aim is to move from describing to explaining.

A Generalizability Framework: Four Types of Generalizing and Generalizability

	GENERALIZING TO EMPIRICAL STATEMENTS	GENERALIZING TO THEORETICAL STATEMENTS
GENERALIZING FROM EMPIRICAL STATEMENTS	**EE** GENERALIZING FROM DATA TO DESCRIPTION This involves generalizing data to a measurement, observation, or other description. How may Type EE generalizability be established?	**ET** GENERALIZING FROM DESCRIPTION TO THEORY This involves generalizing measurement, observation or other description to a theory. How may Type ET generalizability be established?
GENERALIZING FROM THEORETICAL STATEMENTS	**TE** GENERALIZING FROM THEORY TO DESCRIPTION This involves generalizing a theory, confirmed in one setting, to descriptions of other settings. How may Type TE generalizability be established?	**TT** GENERALIZING FROM CONCEPTS TO THEORY This involves generalizing a variable, construct, or other concept to a theory. How may Type TT generalizability be established?

Figure 4.10 A generalisability framework, taken from Lee and Baskerville (2003, p.233)

However, there has been criticism of Lee and Baskerville's framework by other IS researchers (Tsang and Williams, 2012) that claims their definition of induction is too narrow. To stress the importance of theory, Tsang and Williams counter Lee and Baskerville's premise of ET Type Generalisability; in particular, they contest the statement: "a theory generalized from the empirical descriptions in a particular case study has no

generalizability beyond the given case" (Lee and Baskerville, 2003, p.236). Tsang and Williams argue that a theory is a hypothetico-deductive system which "consists of general statements that extend beyond the empirical data from which the theory is developed" (2012, p.736). Figure 4.9 shows an excerpt from the solutions table of Tsang and Williams, by which a solution is offered to the problem with the ET Type Generalisability.

Problem	Evidence	Solution
Type ET generalizability		
Statement about "theories" generalized from case study descriptions entails that these are not theories	" a theory generalized from the empirical descriptions in a particular case study has no generalizability beyond the given case" (p. 236)	Delete the statement and its related discussion

Figure 4.11 An excerpt from the table "A Summary of Solutions to the Major Problems in Lee and Baskerville" by Tsang and Williams (2012, p.739)

Tsang and Williams' research does not only identify the limitations of older frameworks; a new framework containing five types of generalisation is added to the literature "to clarify the debate about whether qualitative studies are less generalizable than their quantitative counterparts" (Tsang and Williams, 2012, p.743). They include 'Theoretical Generalisation' in their framework, which corresponds to Yin's (2009) analytical generalisation, and encapsulates some premises of Lee and Baskerville's ET Type Generalisability. This thesis falls under the type of Theoretical Generalisation that is more representative of the end analysis and theoretical contribution of this research. In terms of theoretical generalisation, case studies are stated to have "an edge over quantitative studies" (Tsang and Williams, 2012, p.744), and "likely to produce the best theory" (Walton, 1992, p.129). This is because case studies investigate the phenomenon in its context, and shed light on contingent conditions and the operating mechanisms through which the phenomenon is generated. This thesis is concerned with identity as contingent upon the historical formulations of old age, and I am aiming to study old age identity in the context of telecare technologies.

Finally, if we consider the conceptual framework to be a less developed version of a theory (Miles and Huberman, 1994), our aim with the end analysis would be to develop the concepts and relationships delineated in the conceptual framework into an explanatory framework. I will start with my conceptual framework and develop a narrative of the old age identity in

relation to telecare technologies, through modes of objectification and discourse analysis. While going back and forth to the literature and repackaging the codified data in a variety of ways, this narrative will be refined and will evolve. The concepts and relationships that I have identified in the final section of the Conceptual Framework chapter will resurface in the explanations under Analysis and Discussion.

4.6 Ethics

Ethical considerations have been taken into account in the design of this research project. To start with, in order to undertake fieldwork, I sought approval from my supervisor and from the Doctoral Programme Director of the Information Systems and Innovation Faculty Research Group. The proposal for fieldwork was considered by the Research Degrees Unit of the London School of Economics and Political Science (LSE), in the form of: 1) ethical approval and 2) application to undertake fieldwork forms. The application was accepted by the LSE in spring 2014. Following the ethical clearance, my research proposal and other related documents, such as a list of preliminary interview questions, went through Surrey County Council's Research Governance Framework process. The research project was reviewed by the Council's research panel and was found to be successful in summer 2014, after which access to the field was granted.

All fieldwork notes, interview audio files, and the transcriptions for interviews were stored in field notebooks, on the dedicated recording device, and on the physical drive of a personal computer; these files were finally transferred on to the secure servers of the Dropbox file hosting service for backup, after the files were pseudonymised and/or anonymised. No participant names have been used in this thesis, although several job titles, such as telecare centre manager, call operator, business intelligence consultant, etc. have been specified when certain quotations have been cited from the interviews. It is important to indicate that conducting a public search through a search engine does not link a specific role to any one specific individual who was interviewed during the fieldwork.

I made the decision to include the job titles and the location names, because 1) validity and authenticity were important factors to present, for example, the commissioners' insights on the telecare project substantially add richness to the meso level data; 2) no notes on any vulnerable persons were to be included in this thesis, therefore the risk of harm was

minimised as much as possible; and 3) the geographical details were too significant to leave out or to anonymise, because of the context it provides. This contextual information consists of several factors, such as: how the telecare centres work together with the central County Council, how they relate to other health and social care services, and how the Surrey Telecare initiative was one of the leading initiatives in the country at the time of the fieldwork, due to its large-scale roll-out.

5 Findings

This chapter presents a descriptive account of the case study. First, I define the background of the case by highlighting its history and context, and then I proceed to describe the case. The chapter will be divided into two analytical levels: 1) macro level, and 2) meso & micro levels, wherein the description and findings will be presented accordingly. In the macro analytical level, I will provide background information by describing the National Health Service (NHS), social care services under the NHS, and the national telecare policies linked to social care services. Finding themes in the macro analysis necessitates the use of the history of telecare services in relation to social care services and in relation to England's NHS. Therefore particular attention will be given to the political landscape, as it is inextricably linked with the production of policies regarding information systems in social services. Following the macro level, I will provide the case description and findings of the Surrey Telecare initiative that make up the empirical part of the case study, and correspond to the meso and micro levels.

Descriptions will focus on components of telecare policies and practices that generate or sustain the narratives around old age. The thematisation process in this chapter is informed primarily by Foucauldian Discourse Analysis and some principles from Fairclough's (1995; 1999) approach to Critical Discourse Analysis (as explicated in the Conceptual Framework chapter). The codes that I will allocate to the data will be collected under main themes at each stage of codification. The data codification and thematisation levels in this chapter are as follows: 1) policy analysis through forewords (macro level), 2) policy analysis through visual elements (macro level), and 3) practices and enactment of policies at the local authority and at telecare service centres (meso and micro levels). At the end of the chapter, there will be a discussion on how the ways in which these main themes present in the data can help to answer the three research questions.

5.1 Macro Level: History, Context, and Policies

In this section, I will outline a history of the National Health Service (NHS), which is a milestone in the UK's social policy and has made possible the local and national health and social care initiatives implemented to date. While doing this, some attention will be given to

the privatisation of the NHS services and the implications of the budget cuts on different segments of the population, such as older people. Documents used to provide a descriptive account of NHS in this section (i.e. the government papers, policies, local information booklets, industry reports, and other documents) are purposefully selected as they are related to and are the products of the history - especially the fiscal history - of the NHS.

5.1.1 National Health Service (NHS) and social care services

The National Health Service (NHS) was born out of a 1930s vision that was put forward by the Socialist Medical Association and then proposed by the Labour government in 1948. Under the umbrella of this new institution, the nationalisation of UK hospitals became the priority. As a product of a twentieth century post-war social policy, the NHS was set up on the basis of medical need, rather than the ability to pay. This was a historically important moment, especially for low-income class people and the more vulnerable groups in the population. This universal, equitable and free health service meant that the health care services would be funded through general taxation.

The NHS was (and continues to be) supported by the Department of Health in England, the Scottish Executive Department of Health in Scotland, the NHS Directorate in Wales, and the Department of Health, Social Services and Public Safety in Northern Ireland (House of Commons Library, 2012). Each country within the UK chose to structure its own health service in different ways.[22] Nevertheless, across the board, the NHS continued to be kept as the universal free health service by successive governments since its inception. When it was created, several associations that had provided medical insurance before the establishment of the NHS joined forces to create British United Provident Association (BUPA). Although in later years BUPA gained a monopoly in the provision of private medical insurance, the formation of the NHS pushed private healthcare to the margins of the system in the UK. As the largest employer in Europe, the NHS was providing healthcare services cheaply to the public, and it was very popular amongst the population.

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[22] For the purposes of this research, when I use the term 'NHS', it will refer specifically to NHS England. This is because my case study takes place in England, and it is based on an initiative that is influenced by the policies created alongside NHS England.

Then the economic crises of the 1970s and underfunding of the services by successive governments challenged the smooth running of the NHS. With the emergence of neoliberal ideologies and the principles of free market that came with them in the 1970s-80s (Harvey, 2007), new sub-disciplines - such as health economics - became more prominent in the development of principles that concern efficiency within the NHS. When the Conservative leader, Margaret Thatcher, came to power in 1979, such free market principles and assumptions only became more prominent. The Thatcher era saw the introduction of strict anti-union and anti-strike legislations in the 1980s. These effectively entailed the weakening of strong trade unions, of which the employees of the NHS (including non-medical staff) had been a part. It also saw the implementation of public sector reforms with business principles onto the welfare state (History & Policy, 2007). These changes paved the way for the successive privatisations of the NHS by the governments of Major, Blair, Brown, and Cameron (Scott-Samuel et al., 2014). Thus, in the last few decades, a move towards a market-based health care system has been observed. Several changes took place during and after the Thatcher years, such as the annual increase in prescription charges (Scottish Parliament, 2013) and, more significantly, the shifting of responsibility for the provision of long term care for older people from the NHS onto the local authorities (Scott-Samuel et al., 2014).

The NHS continued to grow quickly in the late 1980s and in 1990s (House of Commons Library, 2012). Rising health and social care costs with increasing age, and advances in medical treatment meant increasing demands of an ageing population on the NHS. The burden of the rising costs was mainly an issue in the secondary health care units: hospitals. During this time, limited budgets were given to hospital managers to make appropriate changes and savings. But wages were the primary source of cost in the NHS, and, because minimum wages were set nationally and could not be lowered, the only way to reduce the wage bill was to reduce the number of staff. This led to staff shortages in the NHS, paving the way for the closure of certain wards, for the lengthening of waiting lists, and an increasing burden on hospital workers to compensate for the staff shortages (libcom.org, 2012).

With the financial squeeze of the NHS in the late 1980s, the scope of services was reduced first by shifting the long-term care responsibilities of people with mental illness to local authorities. This led to the selling and privatisation of mental health facilities and wards (Open Democracy, 2014). Local authorities were also obliged to pay for private nursing

homes for the long-term care of older people. Although the NHS was still publicly popular, the number of people with private insurance had substantially increased in number since the 1980s (Commission on the Future of Health and Social Care in England, 2014). This coincided with the expansion of global private health care corporations, which had become popularised in Europe.

With growing concerns about the understaffed condition of the NHS in the 1990s, the NHS was taken on the path of a 'third way' by Tony Blair and New Labour. This 'third way' project was concerned with the modernisation of the NHS to make the services attractive to the public again. This was presented with a view that positioned patients as 'consumers' who are given choices by health care professionals. With its consumer-centric principles, this vision to modernise the NHS was thereby echoing business-centric privatisation. Before Blair's extra funding pledge for the NHS (Watt, 2000), the New Labour[24] government were working collaboratively with Private Financial Initiatives (PFIs) to open new hospitals.

PFIs, which were introduced during the Conservative government of Major in 1992, soon became the principal funding bodies for the hospital building programme of the government (Shaw, 2010). PFIs meant that public-private partnerships were being formed through which public infrastructures were funded with private capital. The use of PFIs was limited until 1997, when the Exchequer announced the fiscal policy of reducing government debt, and the government needed to be financed by private sector. The use of PFIs became even more wide-spread when the Labour's Health Secretary announced that year: "when there is a limited amount of public-sector capital available, as there is, it's PFI or bust" (Physicians for a National Health Program, 2007).

In 2000, the responsibility of commissioning health care for patients was given to the NHS bodies called Primary Care[25] Trusts (PCTs). PCTs could buy hospital care for patients from private health care providers. In 2003, the Health and Social Care Act passed, which provided the basis for a radical transformation in the NHS by giving importance to Hospital Trusts (Parliament UK, 2003). With the economic growth of the 2000s, more than 100,000 new nurses and doctors were recruited (LSE News, 2011), and the NHS went through its largest hospital building programme (Secretary of State for Health, 2000). With PFIs, the

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[24] New Labour is a period of history of the British Labour Party from the middle of 1990s until 2010 under the governments of Tony Blair and Gordon Brown. The name comes from a conference slogan, 'New Labour, New Life for Britain', which was used by the party in 1990s.

[25] Primary care is the first point of contact for people in need of health care, and is provided by professionals such as GPs, dentists, pharmacists, and eye health professionals (NHS Providers, 2018).

private sector had power over the management of NHS, due to owning and maintaining several NHS hospitals.

All these changes made to the NHS by New Labour were based on the need for additional capacity. However, by the middle of the 2000s, the marketisation enabled the private sector to be competitors against the public provision of healthcare (BBC News, 2005). After the general election in 2005, several policy changes took place that reflected a shifting rationale and a move towards the creation of a market in health care. Buzzwords in the policies of later years changed to include terms such as: 'patient choice', 'competition', 'improved efficiency', etc. (Department of Health, 2010a, 2010b, HM Government, 2009, 2010). This NHS reform that created a market in the provision of secondary care[26] gradually shifted towards an increasing involvement of the private sector in primary care.

In 2006, the first contract was signed with the private health and social care company Care UK to set up a GP practice and walk-in centre in Dagenham, London (Care UK, 2017). The government continued to encourage more GP practices to be taken over or to be set up due to a shortage of practices in certain areas. The opening of private practices/polyclinics was extended to the country as a whole. In 2008, NHS London instructed PCTs in London to open a centre led by GPs and/or a polyclinic in their area (Londonwide Local Medical Committees, 2008). This was a step to consolidate small GP surgeries into clinics with more GPs that would provide some services already provided at hospitals. While this step was taken to provide more personalised services for the patients due to being closer to their homes, the decision created the means for corporations to be able to invest in these local clinics.

With the 2007 financial crisis, The Conservative Party popularised the need for an austerity programme in the UK based on considerations about past government expenditures. The programme was initialised by the elected coalition in 2010. That year, the ideal of a regulated market was followed through by the Conservative-led government. The Health and Social Care Bill submitted in early 2011 by the Secretary of State for Health proposed to abolish the control structures that New Labour had put in action over the healthcare market and privatisation. The Primary Care Trusts (PCTs) were to be abolished (they were abolished in 2013), and the powers of the Department of Health and the Secretary of State in the provision

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[26] Secondary care is referred to as the 'hospital and community care'. It can "either be planned care such as a cataract operation, or urgent and emergency care such as treatment for a fracture" (NHS Providers, 2018).

of universal health service were also to be reduced following the bill (Department of Health, 2011b). The time frame for the austerity policy had been drafted to be five years; however, the Conservative leader, David Cameron, announced that the public spending reductions were going to continue until further stated. At the beginning of 2017, new public budget plans were put forward along with the Conservative Party's manifesto that included a pledge to end the deficit by the middle of the 2020s (Reuters UK, 2017). However, based on the Institute for Fiscal Studies' (IFS) analysis, it has been forecasted that a third parliament of austerity is awaiting Britain after 2020 (IFS, 2017).

The UK's government austerity programme has brought significant changes to the ways in which public services are organised and operate. For example, reductions to the number of staff in public services has increased workloads for remaining staff, limited the time of frontline staff for public-facing work, and reduced the number of staff in operational roles such as social work. An increased tendency has also been observed for one service to pass cases on to another service, and some specialist staff have withdrawn from services. It was stated that, due to resource constraints, staff were more prone to define responsibilities of their service more narrowly, and third sector organisations have had to fill in gaps in council service more frequently despite their own funding reductions (Hastings et al., 2015). Councils have had to make small changes to a range of services, such as cutting on opening hours of libraries and leisure centres and reducing the frequency of street cleanings (Hastings et al., 2015).

These public service cuts go hand in hand with objectives to privatise certain services. In this regard, the case of the NHS continues to be a long and frequently debated one that has been under much public scrutiny. In 2016, the Government announced that they would sell off the majority of shares to the private sector with the aim of "creating a profitable business model" (UK Parliament, 2016). With this, public investments into the NHS were put on hold, and the NHS was driven toward a regulated market system.

Unlike the provision of health services through the NHS, social care services historically have not been free at the point of delivery in England. Local authority support is means-tested (as will be explained below), and those individuals who receive funding are still expected to contribute their income towards the cost of their care (Jarrett, 2017). Since 1997, there have been policy proposals of successive governments about how individuals should pay for their social care. Most recently, pledges were made towards the betterment of social

care services during the ruling of Conservative governments. The two most recent Conservative leaders, David Cameron and Theresa May, both pledged to cap the overall social care costs (Department of Health, 2017), however hitherto these pledges were not actualised.

These proposed changes were related to the two kinds of measures that affect how the care of older people is funded: 1) *care caps*, and 2) *means tests*. A *care cap* indicates that individuals will not pay any more for their care needs once they meet a certain limit. The £72,000 care cap was proposed during Cameron's government (2010-16), and was planned to be introduced in 2016; however, the government has deferred it at least until 2020. The second parameter that determines the funding of care is the *means test*; it assesses an individual's assets and finances, and a decision is made as to how much they should contribute towards their own care. In the current system, older people who have assets worth more than £23,250 do not receive any support from councils, meaning that many individuals end up with a burden of care costs. Only savings and capital below £14,250 make an individual eligible to be fully funded by the local authority, and an amount between £14,250 and £23,250 means that the local authority pays for some part of the individual's care, based on a sliding scale. As with the proposed care cap changes, the changes to means tested benefits were planned to come into effect in 2016, but have been postponed until 2020. In this deferred plan, the £23,250 upper limit was set to be raised to £118,000, and the £14,250 lower limit to £17,000 (Age UK, 2017).

It is worth noting that, during the introduction of these proposals, some changes were made as to how the means tests would be calculated. Even though the limit has been proposed to be raised to £118,000, this amount was planned to include the value of the individual's house, as opposed to the current system where "the value of a person's home is only counted in this limit if they are in residential care or nursing homes" (Full Fact, 2017). The manifesto of the Conservative Party puts residential care and home care means-testing on an equal basis. This change in the testing poses significant risks to some people who are receiving care not in a residential care home, but in their own home, because they might lose eligibility for care due to these changes. It has been estimated that "out of those in their 70s who would get support at home if they needed it under current rules, an estimated 12% to 17% wouldn't be eligible under the rules proposed in the manifesto according to the IFS", because their homes will be taken into account (Full Fact, 2017). These changes have been reported in the media under the title 'dementia tax' even though the term is not a new one. The Alzheimer's Society

describes dementia tax as: "People with dementia face the highest costs of care of any group and have to pay the most towards their care. This is why charging for care is described as 'The Dementia Tax'" (Alzheimer Society, 2011). According to the statistics given in the 2013 report of the UK Homecare Association (UKHCA), around 60% of people who receive care at home have dementia (Roberts, 2013). The proposed changes in the means testing would inevitably affect mainly older people, and those with dementia even more so.

During the austerity period, further social care saving plans worth £824m were put forward by the government for the 2017-2018 period. The Association of Directors of Adult Social Services reported that "total cumulative savings in adult social care since 2010 will amount to over £6bn by the end of March 2018" (Adass, 2017, p.4), meaning that local authorities have spent significantly less on social care between 2010-2018 than in 2010, when austerity began. It has also been reported that the spending cuts in all public services have affected mostly women, people of colour, and the working class, implying that at the intersection of these three identities, there lies triple discrimination through gender, race and class (Women's Budget Group, 2016). The austerity measures in social care services had detrimental effects on certain minority groups of the population, such as older people, more than others.

According to the comprehensive study of Loopstra et al. (2016), support for poorer older people has significantly declined, creating rises in death rates amongst the people aged 85 and over. It has been also stated that "the number of people getting state-funded help has plummeted by at least 25 per cent" (King's Fund and Nuffield Trust, 2016, p.6) from "over 1.1 million in 2009 to 853,615 in 2013/14" (King's Fund and Nuffield Trust, 2016, p.15). A report by London School of Economics reflects that half a million older and disabled people who would have received social care in 2009, received no local support in 2013 (Fernandez et al., 2013). Therefore, the cuts in health care and social care services have affected many individuals, in particular older people. The reducing level of spending on these services has also been linked to a stagnating rise in life expectancy in the UK since 2010 (Marmot, 2017).

The creation and amendment of social care service policies exemplified in this section mediate and lead to changes in the provision of telecare services in direct and indirect ways. Telecare services have been part of governmental agenda and national policy papers, and they have been introduced in the form of local telecare initiatives with collaborative work of the NHS, Department of Health, and local authorities. Political interest in the promotion of

telecare services has been reported to be due to: 1) changes in the ageing demographic, 2) increased pressures on health and social care services, 3) technological advancements, and, especially, 4) the shrinking budgets of health and social care services (Department of Health, 2010a; 2010b; Mort et al., 2013). Care from home is being promoted as an appropriate solution to these changes.

5.1.2 Telecare services in England

In this section, government policy papers, the Department of Health publications, public guidance documents, and publications of government-endorsed industry bodies will be used as sources to present a history of information strategies concerning telecare services. These documents are macro level (nation level) documents, and a full list of references can be accessed in Appendix F.

At the end of this section, data thematisation will take place to cluster macro level data into packages. To achieve this, an analysis of forewords and of the visuals in certain documents will be carried out. More information on these techniques can be found in Section 5.1.3, as well as in the Research Design chapter.

Policies and information strategies related to telecare services

The 1990s saw an increasing number of studies presenting research about older people and care technologies. These studies provided the grounds for the government to increase their publications on these topics. A housing research report published in 1994 by the Department of Environment (whose current equivalent is the Department for Communities and Local Government) emphasised that the responsibilities of supporting older people have moved away from institutions to the communities, and that older people are becoming more consumerist, seeking choice and independence (McCafferty, 1994). The study also showed that 4 in 5 older homeowners desired to stay in their homes independently. The Royal

Commission on Long Term Care[27] recognised the importance of modern technologies for their potential in improving the lifestyle of older people in imaginative and profitable ways (Royal Commission on Long Term Care, 1999).

During the late 1990s, the older people's charity Age Concern[28] was involved in the debate of ageing and plotted the demographic change that awaits the UK: In 1995 there were less than 9 million people aged over 65; it was forecasted that, by 2030, there would be 50% more older people (Age Concern, 1998). When the NHS began, life expectancy in the UK was around 50 years, and 60% of the population was under 20. However, in the late 1990s, life expectancy increased to 80, and 50% of the population was estimated to be over the age of 50 in subsequent decades (Age Concern, 1998). Although this was a success of improved social conditions and medicine, healthcare costs for older people were found to be significantly higher than those of other age groups (Ermisch, 1990, p.42; Anchor Trust, 1999). An increase in the number of older people was therefore an indicator that healthcare costs would also increase.
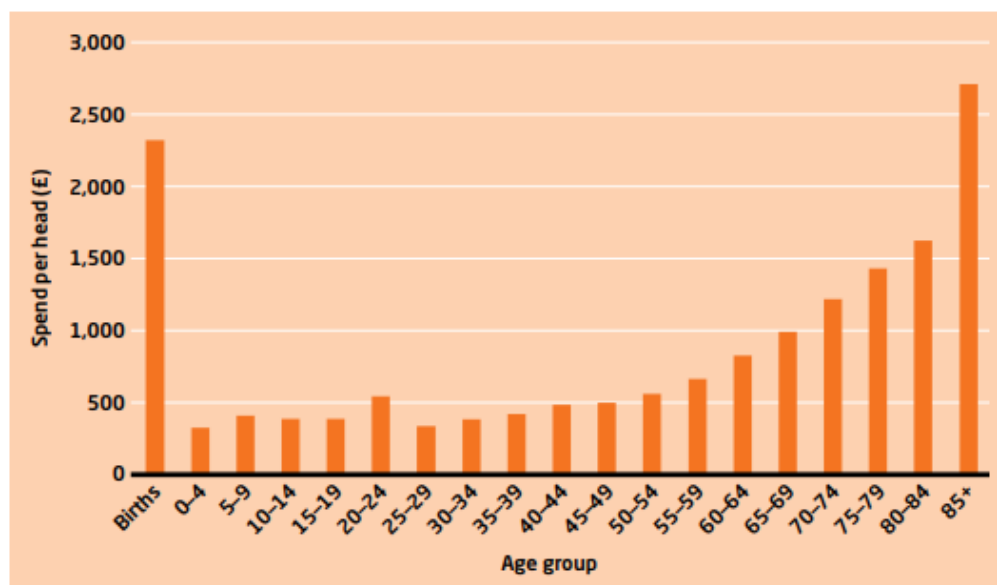
Figure 5.1 NHS expenditure per head in England, by age group, in 2012. Figure taken from Commission on the Future of Health and Social Care in England, 2014.

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[27] "The Royal Commission on Long Term Care for the Elderly was appointed in December 1997 to examine the short and long term options for a sustainable system of funding of long-term care for elderly people, both in their homes and other settings" (National Archives, 2016). In 1999, a grand report was published by the commission, and many recommendations were put forward for the government about the future of care, including the proposal for free personal care. The Royal Commission has not been active since; however, in the following decades, their proposals kept being used as a substantial foundation for political discussions around social care.

[28] This was the largest charity for older people until 2009, before the charities, Age Concern England and Help the Aged, merged and formed the current Age UK.

In the late 1990s, the UK government directed their initiatives towards promoting health and independence, modernising care services, and delivering value for money (Department of Health, 1998). With these ideas, telecare services emerged in a network of information systems. While enabling older people to live safely and independently in their homes, telecare strategies were expected to be aligned with a wide range of health care, social care, and housing-related government initiatives.

With the recognition of various technologies in the information strategy white paper, *Information for Health* (NHS Executive - DOH, 1998), the government was setting national strategies for the local implementation of various services. These involved technologies such as: electronic patient records, the NHS Direct telephone and online information services, telemedicine, telecare, the NHSnet network between hospitals and GP surgeries, and information systems linking GPs and community pharmacists. The government was determined to invest in telecare technologies at a national level, as these services were seen to have a key role in the government's plans to modernise the NHS. After this white paper, the nationwide development and application of telecare was given a higher priority.

The Department of Health's *Modernising Social Services* white paper in 1998 (Department of Health, 1998), identified various failures and problems in social care services. These issues were linked to a low level of public confidence in social services, and a call for *modernisation* was emphasised. This modernisation entails a support for people's independence, welfare reforms, and social inclusion. The protection of vulnerable individuals, in particular older people, is in the foreground of the paper. With this white paper, clearer responsibilities for local government were identified by the central government, and new targets for quality and efficiency were set for the councils. The Social Services Modernisation Fund that was introduced via this paper was made up of a £1.3 billion budget to be spent over 3 years on various projects that promoted independence. *Modernising Social Services* is an influential paper that restructured social services, improved joint working between health care and social care, and provided the grounds upon which the Care Standards Act 2000 was built.

Some telecare initiatives were trialled in the late 1990s, and these gained momentum with broader governmental recognition. The Lifestyle Monitoring Telecare System was one of the most notable examples. It was the result of a two-year project funded by the Housing

Corporation's[29] Innovation and Good Practice (IGP) grant[30] and by British Telecom (BT)[31]. The project was trialled by BT and Anchor Trust[32] in designated homes located in Newcastle, Ipswich, Liverpool and Nottingham. The aim was not to create a finished product; it was rather to learn the issues that must be addressed in order to offer successful products to older people, i.e., products they can benefit from to remain independent (Anchor Trust, 1999). The system proved to be a prototype for telecare solutions in the upcoming years.

This monitoring telecare system was designed to work without a need for community alarm equipment or a wearable physical device. It recorded daily activity patterns via passive infra-red (PIR) movement sensors, magnetic proximity switches, and temperature sensors in various rooms. The sensors were located with wireless communication, and the user had the choice to turn the system on and off by dialling a designated number. The data gathered through the telephone network was then sent to BT laboratories for analysis. Once a normal pattern profile had been created for each person on the trial, the system was looking for deviations from this pattern. If any deviations occurred, an alert call would be generated. Upon answering the phone, the user was asked to press 2 for assistance, or 1 if they felt that no assistance was required. As an escalation step, a nominated carer would be called if 2 was pressed by the user or if the alert call was not answered. Blue light services were not yet integrated in the network at this point, as the trial was not a large-scale one. After the trial, focus groups, in-depth questionnaires and interviews with users were undertaken, to record experiences and expectations. The independent evaluation done by the Institute of Human Ageing at the University of Liverpool pointed to the success of the trial, with high satisfaction rates from older people and their carers (Anchor Trust, 1999).

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[29] "The Housing Corporation was the non-departmental public body that funded new affordable housing and regulated housing associations in England. It was abolished in 2008 with its responsibilities being split between the Homes and Communities Agency and the Tenant Services Authority" (GOV.UK, 2008).

[30] "The IGP programme is a revenue grant administered by the Housing Corporation to encourage the development and testing of new ideas and proposals and to generate and promote good practice in the delivery of housing services within the housing association sector" (UK Housing, 2007).

[31] "In the UK and globally [BT Group] is a leading provider of managed networked IT services for many of the largest multinational corporations, domestic businesses and national and local government organisations. BT also sells wholesale telecoms services to communications providers in the UK and around the world" (BT Group, 2012, p.10).

[32] "The Anchor Group is England's largest not-for-profit provider of housing and care for the over-55s" (Anchor Trust, 2017).
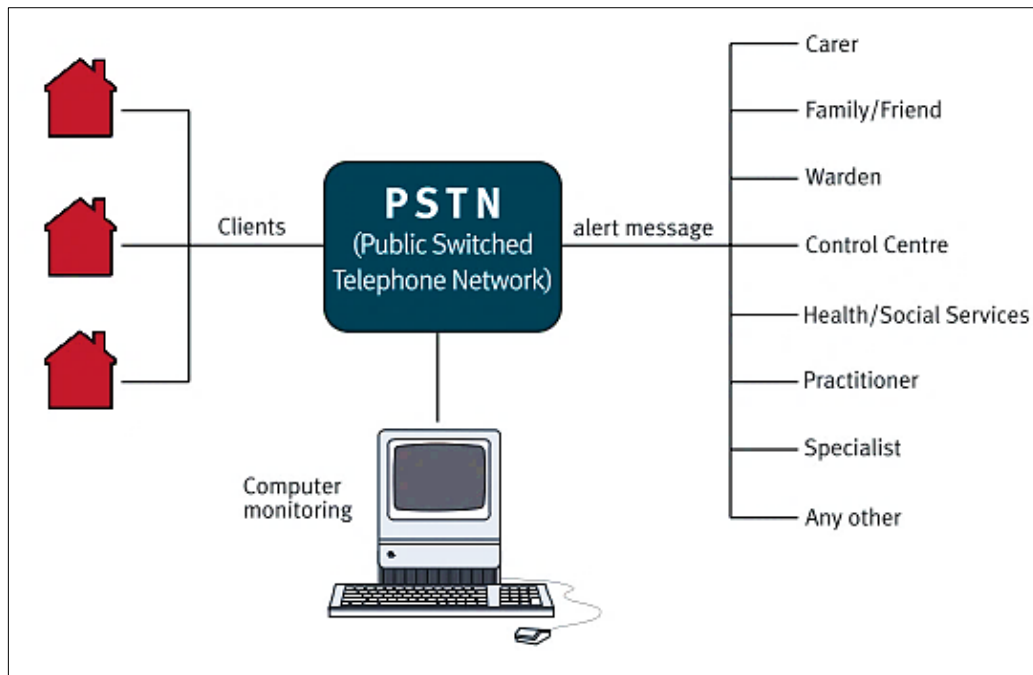
Figure 5.2 The Lifestyle Monitoring System (Figure taken from Anchor Trust, 1999)

Various councils continued working together with BT to deliver telecare services in their areas. Several other trials were taking place simultaneously during this time, and the number of initiatives was increasing. With regard to the former, the joint venture named Liverpool Telecare Pilot was formed by Liverpool City Council in 2004. With regard to the latter, an initiative called Better Government for Older People (BGOP) was set up by the government in 1998 as a partnership between the public, private and voluntary sectors. The key partners of the BGOP were older people, and the initiative aimed to shape policy and decision-making at both local and national governance levels. Older people (which were then defined as those aged 50 and above) supervised research projects until the end of the initiative when the projects were completed. However, soon after the end of the initiative, it was turned into a *Network* with the addition of 350 local member organisations to share good practice, and "to bridge the gap between the policy intentions of local and central government" (Community Care, 2002). The network is partly funded by the government, and partly by its subscribers. The BGOP also funds the Older People's Advisory Group (OPAG), an offshoot launched in 1999 that aims to influence local and national policy. OPAGs still exist today in various counties and councils, and they do local work.

In 2000, *The NHS Plan* was presented to the parliament by the Secretary of State for Health. The problem it addressed was defined as (p.12): "old people falling in the cracks between

the two services" (social care and health care), and the solution it offered was to ensure that resources would be shared between the NHS and social services for the first time in the NHS' history (Secretary of State for Health, 2000). New care trusts were introduced with this plan to commission health care and social care services under the same organisation. This bill prioritised getting support for people at risk to remain independent at home, as well as securing their safety and security. They also started the debate about a need for new technologies for the independent living of older people and people with disabilities. The modernisation of IT systems and placement of extra funding into information technologies were on the government's agenda in the years following the bill. It was claimed that 50% more people would benefit from assistive technologies[33] and community equipment services. These ranged from basic care equipment, such as grab rails, to more sophisticated devices, such as fall alarms.

In 2001, the Department of Health issued a strategic framework document about older people's housing (Department of Health and DETR, 2001b) that gave special emphasis to older people's specific needs, including the use of new technologies to support their independent living. Due to a change in the aging profile, the provision of affordable and appropriate housing for older people was impacted in various ways. The report's aim was to encourage and enable local authorities, including the local NHS and councils, to: a) reflect upon their strategies for the community; b) improve services; and c) help organisations that provide housing and services to ensure that their services are accessible to older people. Technology was put in the heart of the housing talks. Contributing factors for this focus were: the increased use of technology in people's daily lives, the emphasis on preventative services that can help to support older people in their own homes, and the healthcare costs of an ageing society. At this point, community alarm technologies were being used by many older people; however, a drawback of these systems was the need for the user to initiate the call. New technologies such as telecare were deemed by the government to be more preventative in their approach, hence offering benefits for older people.

In 2004, the government announced their plans to invest £80 million over the period of 2006-2008, in what they named the *Preventative Technology Grant*. The purpose was: "to initiate a change in the design and delivery of health, social care and housing services and prevention

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[33] Assistive technology is "any device or system that allows an individual to perform a task that they would otherwise be unable to do, or increases the ease and safety with which the task can be performed." (Royal Commission on Long Term Care, 1999).

strategies to enhance and maintain the well-being and independence of individuals" (Department of Health, 2005b, p.8). This change involved substantial investments in telecare technologies. The grant was designed to support vulnerable older people by keeping them safe in their homes and out of hospital (Audit Commission, 2004).

Consecutive national publications about telecare followed: *Strategic Business Case Models for Telecare*; *Building Telecare in England*; and *Independence, Well-being and Choice* by the Department of Health (2005a; 2005b; 2005c), and *Telecare Implementation Guide* by the Care Services Improvement Partnership (CSIP, 2005) – the partnership that operated between 2005 and 2008 under the Department of Health to support the local delivery of health and social care policy. The papers included: finances, advice, implementation guidelines, ethics, and performance assessment guidelines of telecare services. This furthered the case for telecare technologies as a national panacea, in the form of prevention, enablement and early intervention services.

With the publication of the white paper, *Our Health, Our Care, Our Say: A New Direction for Community Services* (Department of Health, 2006), some concerns were put forward regarding old age and disabilities in the population. It was estimated that over two-thirds of NHS activity and an estimated 80 percent of costs are linked with one-third of the population who are over 85 years old and/or have severe disabilities. To overcome this problem, the Department of Health was intending to increase the joint commissioning between primary care trusts and local authorities for better service integration, rather than providing fragmented services. Future objectives of this paper were to increase the choices given to patients and to extend support for people with long-term needs to live independently, with special emphasis placed upon assistive technologies. The government was invested in demonstrating whether technologies such as telecare benefit or enhance the quality of life of individuals and of their carers, and whether they deliver gains in the cost-effectiveness of care. To reform health and social care services as a whole, the government also expressed determination to tackle care inequalities "(…) across social class and income groups, between different parts of the country and within communities. The new emphasis on prevention will help close the health gap; so will encouraging GPs and other providers to expand services in poorer communities" (Department of Health, 2006). Expanding services meant that telecare was also to be extended beyond the small-scale trials to all communities of the country.
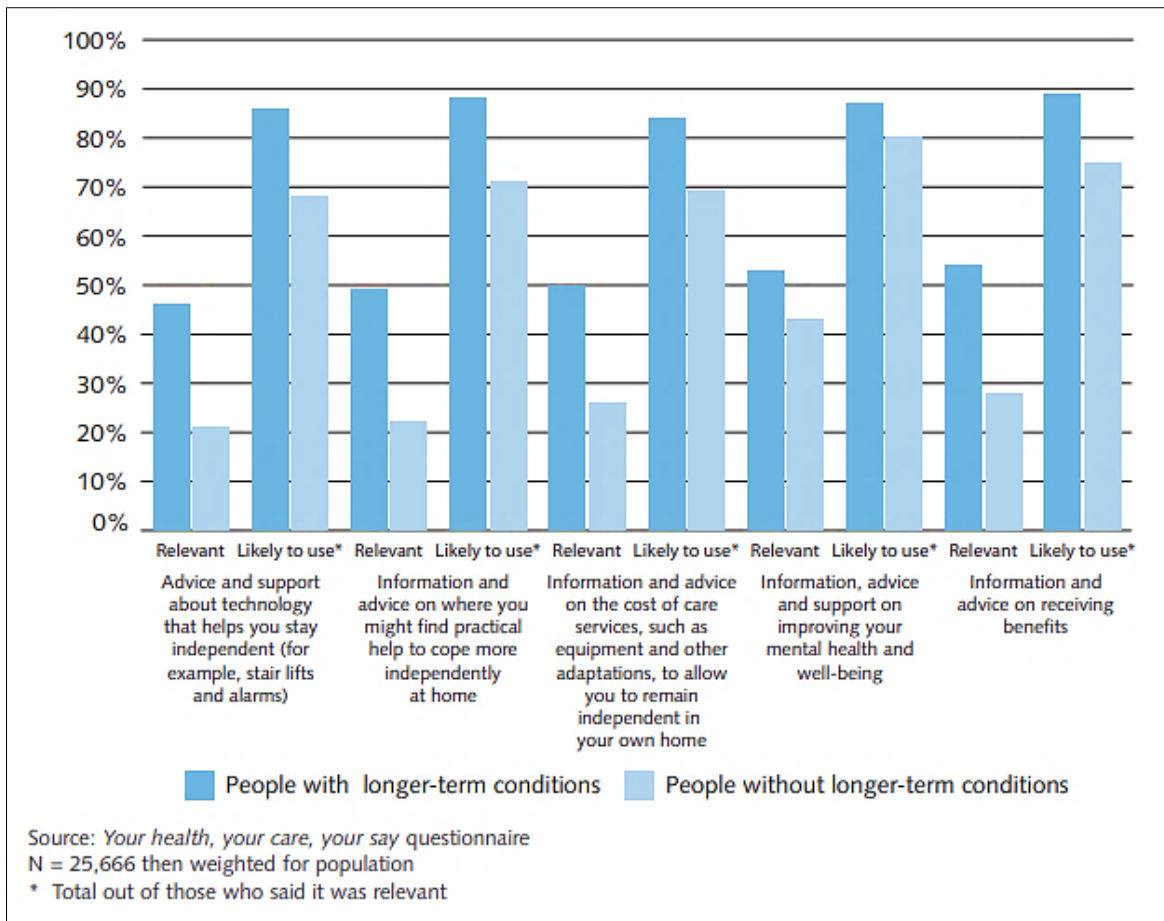
Figure 5.3 Responses to the question "Services that could be made available – which are relevant to you and which would you use?" from people with long-term conditions (Figure taken from Department of Health, 2006). Receiving support about technologies that help people stay independent is one of the key questions asked in this consultation. People with longer-term conditions, including a large proportion of older people, find the use of assistive technologies more than twice as relevant as people without longer-term conditions.

The circular by the Office of the Deputy Prime Minister (2006), which was supported by the Department of Health's *Building Telecare in England* paper, aimed for fair allocation of the Preventative Technology Grant. Based on the strategy, this fund was to be allocated within two years and amongst all councils in England who were responsible for their community's social services. The government recognised the effectiveness of telecare only as an integrated service with many partners; it expected councils to work with others - such as the NHS, housing authorities, voluntary sectors, service users, carers, etc. - in developing telecare services.

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With the introduction of subsequent government reports on the future of social care (HM Government, 2007; 2009), care discussions were more focused on older people, independent living, prevention, and telecare. Initiatives were introduced in 2009, such as the Older People's Prevention Package, to encourage the use of prevention services by older people. Care guidance on telecare services was also part of the package. At around the same time, the Department of Health introduced their two-year Whole Systems Demonstrators (WSD) Trial Programme, the largest randomised control trial (RCT) of telecare and telehealth services to date. With over 6,000 participants selected in three UK sites (National Archives, 2010), they aimed to close the evidence gap around the effectiveness of telecare and telehealth technologies, and to demonstrate the potential benefits of integrated care.

With the announcement of social care-related Department of Health papers within a short period in 2010 (Department of Health, 2010a; 2010b; HM Government, 2010), the vision of individuals with more control over their own care was introduced. After the restructuration of how services were to be commissioned, local social care services - including telecare - became a bigger part of the councils' responsibilities. The role of the government shifted towards facilitating the changes, rather than being directly involved; it was a shift towards less top-down and more local accountability. The councils were now held to account by the local communities for the services they provide and the experiences of service users. The Adult Social Care[34] teams in the councils had certain responsibilities, such as: providing information and advice to local citizens, enabling and improving the local preventative and early intervention care services, and working in close partnership with housing authorities and the NHS (Department of Health, 2010a).

These publications also discussed the topic of funding options. It was stated that an unfair situation was arising between generations because "the majority of people to benefit from a fully tax-funded system would be older people, and yet it is working-age adults who would face the largest burden in paying for it" (HM Government, 2010, p.128). The case was supported with statistics from the Office for National Statistics that stated that the people aged between 65 and 74 were one of the wealthiest age groups in Britain, and that by contrast young people had debts from student loans and mortgages. In this way, the financial justifications for telecare were put forward through the government's publications.

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[34] "Adult social care – the provision of support and personal care (as opposed to treatment) to meet needs arising from illness, disability or old age – is funded by the Department for Communities and Local Government (DCLG) and managed through local authorities" (Institute for Government, 2017).

As the years have passed, Telecare initiatives have become a bigger part of the Department of Health's and councils' agenda in searching for more cost-effective ways of caring for older people and people with complex long term conditions (Sanders et al., 2012). After the results of the WSD programme were released in 2012, and were deemed to be effective by the government, the Department of Health quickly started a new initiative called 3millionlives (3ML). DH believed that "at least three million people with long term conditions and/or social care needs could benefit from the use of telehealth and telecare services" (3ML, 2012). The government aimed to use this campaign as an encouraging example for greater use of remote monitoring ICTs in health and social care (HM Government, 2015).

3ML was a national call for the authorities to work together with the private sector over the next 5 years in the development of a market for telecare services. DH was aiming to create an environment to encourage the uptake of telecare services by rewarding organisations for adopting these technologies. Along with other trade associations, the Telecare Services Association (TSA)[35] supported and funded this project, which is the main telecare accreditation body in the UK that has been publicly endorsed by the government. After this point, social care and NHS services started working more closely with industry. Telecare services were expected to bring about major implications for health and social care services by transforming the order of care and extending the reach of healthcare outside of the consulting rooms and hospitals (Oudshoorn, 2011). Following the governmental push by the telecare trials, initiatives, and changes in commissioning structures, there were various pilot projects launched at local councils across the country - including notable projects in London, Surrey, Durham, and a few others - conducted by the social services of the related councils.

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[35] Telecare Services Association (TSA) is a non-profit organisation that influences national policy, sets standards for the industry, advises on commissioning and procurement, organises events, and offers relevant training (TSA, 2017a). Several organisations that provide telecare products or services go under an audit for the TSA's Quality Standards Framework (QSF) accreditation for manifold reasons, primarily to enhance their reputation, and to protect the organisation from the consequences of any services of poor quality. After being the primary framework in the accreditation of telecare services in the UK since 2013, TSA's QSF was publicly endorsed in 2017 by the Parliamentary under Secretary of State for Community Health and Care (TSA, 2017b).

5.1.3 Macro level themes

I have described various national policies and projects led by the government and private sector that have been centred around the NHS, social care services, and telecare technologies. The following three sections will reflect on the thematisation of white papers, government's guidance documents, and industry reports. These publications have been referenced throughout previous sections that presented a history of telecare and social care services. The objective in this section is to find a cluster of topics that signify certain trends and reveal key themes. The key documents that have been selected are representative in: a) reflecting rationales and preconceptions, and b) preparing the foundation the introduction of new debates, actions and policy changes regarding care and care technologies.

As presented in the Research Design chapter (see Figure 4.8), the data thematisation process will begin at the level of macro documents - more specifically, with the forewords of seven documents. The data in macro documents are clustered first because analysing the data of meso and micro levels requires one to be informed by macro themes in order to be able to see clearly the enactments of certain aspects of policies and strategies.

After the thematisation process of the forewords, I will move further to search for themes in the visuals of 13 macro level documents. The initial themes that are identified through the foreword analysis will be applied in the visuals analysis in a bid to concretise the data categories. Emerging primary categories from the visuals will then be added to the list of themes.

5.1.3.1 Forewords in government and industry publications

<u>Why forewords?</u>

In his book *Critical Discourse Analysis: The Critical Study of Language* (Fairclough, 2010), Fairclough analyses political texts, including the forewords of government documents. His aim is to "discuss theoretical perspectives on the character of contemporary politics and the State especially in advanced capitalist countries like Britain" in order to be able to analyse "dialectical relations between semiosis and other elements, especially at the level of social practices and orders of discourse" (Fairclough, 2010, p.239). It is important to note that the

forewords of the following government and industry publications (which will be thematised) offer condensed versions of the information given in the documents. These are the documents that have been used as references in the previous subchapters to elaborate on the history of NHS and telecare services in England.

The foreword texts in the documents have been written in a personal voice - almost speech-like - by actors such as by Prime Ministers or Members of Parliament. The use of the words 'we', 'us' and 'our' seems to be a common occurrence. In this way, the texts encapsulate a sense of inclusivity and emotiveness. This tone can give insights into "the character of contemporary politics" as described by Fairclough (2010, p.239). Also, the inclusive use of language in the forewords align with the Foucauldian definitions of power, which depict the shift from sovereign power to disciplinary power and bio-power that generates control mechanisms over the social body. (For the related discussion about power and control, please refer back to Section 3.2.2, *Foucauldian Discourse Analysis*.)

Categorisation of forewords

To start with a specific telecare document, I can give the example of the 2005 guidance paper *Building Telecare in England* (Department of Health, 2005b). This government document focuses explicitly on telecare services. It starts with a statement from the Parliamentary under-Secretary of State for Care Services. The statement firstly focuses on the demographic changes that future years will bring and acknowledges that public services will face problems. In addition to statistical estimates, predictions are made about the future older population's expectations of public services. Because this information creates a sense of urgency in dealing with a somehow alarming view of the future, a suggestion is put forward to offer a viable solution that is supported by a set of justifications. Finally, supporting statements about telecare strategies are presented, as well as discussions of the uncertainty around future possibilities.

A similar methodical flow of statements and similar themes can be found in several more the government's social care-related publications. In order to demonstrate similarities between documents with an attention on recurring themes, various quotations will be taken from the foreword of the *Building Telecare in England* document (Department of Health, 2005b), as well as from those forewords written by Prime Ministers, Ministers, and Secretaries of State in six other documents. These documents have been selected as a

representative case from the data 'pool', which contains 40 macro level papers. The full reference list of all macro documents and of the 7 publications whose forewords are analysed can be found under Appendix F.

In addition to the *Building Telecare in England* paper, five of these documents have been published by the Department of Health, or by Her Majesty's Government. A brief description of these publications: 1) The 2001 strategic framework document *Quality and choice for older people's housing* (Department of Health and DETR, 2001b); 2) the 2005 green paper *Independence, Well-being and Choice* (Department of Health, 2005c); 3) the 2006 white paper *Our health, our care, our say* (Department of Health, 2006); 4) the 2009 green paper *Shaping the Future of Care Together* (HM Government, 2009); and 5) the 2010 white paper *Building the National Care Service* (HM Government, 2010). Each government paper foreword gives a glimpse of the rest of the document; a person in authority explains both the issue at hand and the solution concisely. Although these five documents do not explicitly focus on telecare, all of them encompass care and telecare technologies as part of their strategies. At the same time, each recognises older people as the primary users of social care services, and therefore the primary users of care technologies.

Similarly, the 2016 white paper, *Putting People First*, which was written by the industry body Telecare Services Association (TSA, 2016a), reflects the themes discussed as part of the TSA's Think Tank Panel[36]. This panel includes third sector leads, industry consultants, and NHS and government officials - such as the Minister of State for Care Services, who acted as TSA's senior advisor. The two forewords written in this document - one by a consultant and the other by a minister - have parallels with the government's own publications, but with a stronger explicit focus on the future of care technologies observed. The forewords in this document will also be included in the thematisation process.

The previous sections in this chapter have dealt with the history of telecare, social services, and of the NHS. They contained quotations from the 7 documents that are now referenced in this section, and presented a short summary of the papers, along with references from other macro documents. While laying out the quotations from the seven representative documents, some themes, concepts and meanings recurred multiple times. In the first round of thematisation, each quote has been labelled with codes, then these codes have been turned

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[36] The Think Tank Panel met in 2016 to consider recent developments in the adoption of care technologies in the UK, and consult on the TSA's new 'Technology Roadmap' to guide the industry through changes (TSA, 2016a, 2016b).

into sub-themes. In the second round, the sub-themes have been grouped together to reflect more general trends, through which the main theme itself has been created. These main themes are as follows:

1- Categorisations of Old Age
2- Modernisation
3- Legitimising Technologies and Institutions
4- Togetherness and Social Responsibilities

A more detailed design of this thematisation process is available in the Research Design chapter. The current chapter explores the main and secondary topics that can be subsumed under meaningful categories. This categorisation process is informed by previous chapters and aims to provide the grounds for analysis in the next chapter. It needs to be highlighted that the process of identifying the themes is influenced by the discussions and theories that are present in the Literature Review and the Conceptual Framework chapters, as well as the previous sections of the current chapter. This means that I have had preconceptions before the analysis, and that the categorisation of data in this section is not theoretically blind. This is in line with Bryman's (2012) elaboration on theory-neutrality: "Nowadays it is rarely accepted that theory-neutral observation is feasible. In other words, it is generally agreed that what we 'see' when we conduct research is conditioned by many factors, one of which is what we already know about the social world being studied (both in terms of social scientific conceptualizations and as members of society)" (p.574).

A list of quotes extracted from the forewords is given below, subsumed under the 4 primary themes. At the end of each quote is a code given in { } brackets and a document reference. These codes provided the grounds for creating those sub-categories that have been listed underneath the primary theme (in the form a, b, c, etc.)

(1) <u>Categorisations of Old Age</u>

    a. Recognition of social issues linked with an ageing population
    b. Normalised expectations of older people
    c. Quantification of older people as a group
    d. Use of standardised measures e.g. quality of life

The main theme and its secondary themes have been created based on the quotes and codes below:

I. *"Over the coming years, many over-65s in England will be better off and better educated, with higher expectations of public services than retirees before them. They will have been accustomed to and will expect higher quality services."* (Department of Health, 2005b, p.3) – {normalised expectations}

II. *"They want independence, and after a life-time's work, they want, and are entitled to, dignity for life."* (Department of Health, 2005b, p.3) – {normalised expectations}

III. *"Over the next fifty years the number of people over 65 will rise from 9.3 million to 16.8 million."* (Department of Health, 2005b, p.3) – {use of statistical/numerical data}

IV. *"An estimated 90% of older people want to live in their own home."* (Department of Health, 2005b, p.4) – {use of statistical/numerical data}

V. *"Research funded by the Department of Health suggests that as many as 35% of those people could be supported to live at home or in extra care housing schemes through the use of telecare."* (Department of Health, 2005b, p.4) – {use of statistical/numerical data}

VI. *"[…] surveys suggest that the majority of people would prefer to be supported to die in their own homes."* (Department of Health, 2005b, p.4) – {use of statistical/numerical data}

VII. *"And, of course, people do not always want to be entirely dependent on friends and family. It is in these situations that organised social care should provide the services needed to ensure wellbeing and support the independence of individuals."* (Department of Health, 2005c, p.5) – {independence}

VIII. *"Our policies to improve housing quality and choice and modernise public services are as relevant to improving the quality of life of older people as they are for others in society."* (Department of Health and DETR, 2001b, p.4) – {quality of life}

IX. *"We know that it will not be able to cope with future pressures in its current form and we need to reform the funding system."* (HM Government, 2009, p.4) – {recognising issues}

X. *"The current care and support system is no longer sufficient."* (HM Government, 2010, p.2) – {recognising issues}

XI.   *"In the depths of the Second World War, William Beveridge inspired this country to battle the five 'giant evils' of want, disease, ignorance, squalor and idleness. Today, a fear of old age is just as great a challenge."* (HM Government, 2010, p.4) – {metaphor, recognising issues}

XII.   *"People are healthier and living for longer. This is a great victory but the implication is that more people will need care and support. Left unchanged, this would push our current system of social care to breaking point."* (HM Government, 2010, p.4) – {recognising issues}

XIII.   *"We must continue adapting this support to ensure it meets people's expectations of a high-quality service and their aspirations for independence."* (Department of Health, 2005c, p.3) – {normalised expectations, independence}

XIV.   *"We face a challenge no other generation has had to confront: an ageing population rightfully demanding greater dignity, self-respect and support in old age and increasing numbers of people with disability, rightly demanding care and support which enables them to learn, work and contribute to society."* (HM Government, 2010, p.2) – {normalised expectations}

XV.   *"The current social care system was designed for a different era and cannot cope with the challenges of today. A boy born in 1951 could expect to live for 77 years, while a boy born in 2008 can expect to live until he is nearly 89. Over the next 20 years, an additional 1.7 million people in England will have a care and support need."* (HM Government, 2010, p.4) – {use of statistical/numerical data}

XVI.   *"Technology is the enabler and connector, the object is the quality of life of the patient, service user and carer."* (TSA, 2016a, p.5) – {quality of life}

(2) <u>Modernisation</u>

      a.   Reforming services

      b.   Promoting independence and person-centricity[37]

      c.   Choice and consumerism

      d.   Privatisation

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[37] "Being person-centred is about focusing care on the needs of individual. Ensuring that people's preferences, needs and values guide clinical decisions, and providing care that is respectful of and responsive to them" (Health Education England, 2016).

The main theme and its secondary themes have been created based on the quotes and codes below:

I.   *""Older people" are no different to "younger people" in wanting choice over where and how they live their lives, and access to good quality, responsive services to enable them to live life to the full."* (Department of Health and DETR, 2001b, p.4) – {choice, service reform}

II.   *"Our policies to improve housing quality and choice and modernise public services are as relevant to improving the quality of life of older people as they are for others in society."* (Department of Health and DETR, 2001b, p.4) – {service reform}

III.   *"There is a rich diversity amongst our older population and a 'one size fits all' approach is no longer valid. Our aim is to set out a vision and put in place actions that will continue the process of innovation and development so that older people are offered higher quality and more choice over their housing and services wherever they live."* (Department of Health and DETR, 2001b, p.4) – {service reform, choice}

IV.   *"In this endeavour we are working closely with a wide range of organisations in the statutory, voluntary and private sectors. There is much activity outside Government that is seeking appropriate solutions, and we want to harness and co-ordinate this work with our own. We can achieve far more for older people through a partnership approach than we could alone."* (Department of Health and DETR, 2001b, p.4) – {partnership with private sector, justification}

V.   *"This is an important part of our commitment to renew and modernise all our public services so they are centred on the needs and wishes of the individual."* (Department of Health, 2005c, p.3) – {service reform}

VI.   *"Our society, quite rightly, values the independence that we all try to develop as adults: our own income, our own family and our own choices for leisure, meals and lifestyle."* (Department of Health, 2005c, p.6) – {independence, choice, consumerism}

VII.   *"People will be helped in their goal to remain healthy and independent."* (Department of Health, 2006, p.4) – {independence}

VIII. *"That is why GPs are being given greater control over their budgets and will be more accountable for the money they spend. This will allow them to acquire for their patients services from a broader range of providers within the NHS, voluntary and private sector."* (Department of Health, 2006, p.1) – {partnership with private sector}

IX. *"Services will be integrated, built round the needs of individuals and not service providers, promoting independence and choice."* (Department of Health, 2006, p.4) – {independence, choice}

X. *"People will have real choices and greater access in both health and social care."* (Department of Health, 2006, p.4) – {choice}

XI. *"The current care and support system was designed in the 1940s and we need to develop a system that fits our needs in the 21st century. We need a system that is fairer, simpler and more affordable for everyone."* (HM Government, 2009, p.4) – {service reform}

XII. *"[About the Big Care Debate] People told us that the time for reform has come. They told us they need a system that will support them and their families to live the lives they want, that will treat everyone with dignity and respect and that will give them choice and control over their care."* (HM Government, 2010, p.4) – {working together, public consultation, choice and control}

XIII. *"This White Paper is not about technology: it is about people."* (TSA, 2016a, p.5) – {person-centricity}

XIV. *"We all have a clear opportunity to embed technology within every element of care and support, and instil a 'think technology first' culture throughout our collective workforce."* (TSA, 2016a, p.4) – {service reform}

XV. *"Instead of focusing on technology, focus on meeting the needs of the patient, service user and carer."* (TSA, 2016a, p.5) – {person-centricity}

(3) <u>Legitimising Technologies and Institutions</u>

    a. Recognising challenges
    b. Reassurance about future success with technologies
    c. Building confidence in national and local bodies
    d. Emphasis on localism

The main theme and its secondary themes have been created based on the quotes and codes below:

I. *"Local authorities have a key role to play here in taking the lead locally."* (Department of Health and DETR, 2001b, p.4) – {localism}

II. *"Telecare is vital to unlocking this future."* (Department of Health, 2005b, p.3) – {suggesting a solution}

III. *"Throughout the consultation, the need to find a balance between the use of technology and the continuation of human contact has been a recurring theme."* (Department of Health, 2005b, p.5) – {recognising challenges/uncertainty}

IV. *"We must take care not to allow these new technologies to control or isolate us and whilst the world around us is fast changing our basic human needs remain the same. Some care services will always be, quite rightly, delivered personally."* (Department of Health, 2005b, p.5) – {recognising challenges/uncertainty}

V. *"None of this will be easy. Nor was slashing waiting lists, but the NHS has risen magnificently to this challenge."* (Department of Health, 2006, p.2) – {recognising challenges/uncertainty, reassurance}

VI. *"It is a tough challenge. But we have already seen in social care how the use of direct payments, for example, has helped improve services and transform lives."* (Department of Health, 2005c, p.3) – {recognising challenges, reassurance}

VII. *"There are innovative 'pilot projects' where we can catch a glimpse of the future and many of these have informed our vision."* (Department of Health, 2005c, p.7) – {reassurance}

VIII. *"Previous governments have aspired to parts of this vision. But we are the first government to lay out both a comprehensive and compelling vision of preventative and empowering health and social care services and an effective programme for making this vision a reality."* (Department of Health, 2006, p.4) – {reassurance}

IX. *"We will cut back the bureaucracy so local government and the NHS work effectively in tandem, and give customers a bigger voice over the care they receive."* (Department of Health, 2006, p.2) – {localism}

X. *"Our answer is bold, ambitious reform to create a system rooted firmly in the proudest traditions of our National Health Service. Its creation in 1948 wasn't just one of Britain's proudest moments; it was also a profound statement of what can be achieved through collective will in the face of adversity."* (HM Government, 2010, p.2) – {suggesting a solution, reassurance}

XI. "This White Paper truly represents the beginnings of a profound change." (Department of Health, 2006, p.4) – {reassurance}

XII.   *"But we will go further."* (HM Government, 2010, p.5) – {reassurance}

XIII.   *"This is an historic reform, bold and far-reaching."* (HM Government, 2010, p.5) – {reassurance}

XIV.   *"Together, we have shaped the future of care. Now is the time to take action."* (HM Government, 2010, p.5) – {reassurance}

XV.   *"Local government's strength comes from its closeness to the communities it serves. The National Care Service will bind this with a new vision of more personalised care for everyone, focused on keeping people well and independent."* (HM Government, 2010, p.5) – {localism}

XVI.   *"I have witnessed first-hand how [technology enabled care services] can play a key part in maintaining independence and instilling confidence in family members wanting to remain in their own home and community."* (TSA, 2016a, p.4) – {reassurance}

XVII.   *"The TSA has identified a need to set up a local digital leaders' network (…) [and] will draw together local expertise and national system leaders to spread the expertise and help shape future procurement and contracting."* (TSA, 2016a, p.5) – {suggesting a solution, localism}

(4) Togetherness and Social Responsibilities

    a. Emphasis on intergenerational links
    b. Identifying threat factors upon which the provision of care depends
    c. Emphasis on moral and ethics of caring for old age

The main theme and its secondary themes have been created based on the quotes and codes below:

I.   *"It is family and friends, of course, who still take on most of the caring responsibilities. This support is given willingly but must not be taken for granted."* (Department of Health, 2005c, p.3) – {threat factor}

II. *"We all know the challenges to which public services will have to rise. People are living longer but are less likely to have the support of an extended family."* (Department of Health, 2005b, p.3) – {threat factor}

III. *"The nation depends upon the emotions and care that we all give to the people we know. If this relationship were to disappear, organised social care could not cope. We must never forget that."* (Department of Health, 2005c, p.6) – {intergenerational links, threat factor}

IV. *"By giving frontline professionals and the public more say and control over the services they provide and receive, I am confident that we will continue building a high-quality health and social care system."* (Department of Health, 2006, p.2) – {working together}

V. *"People told us that everyone in society shares the responsibility for making sure that people receive the care they need."* (HM Government, 2009, p.4) – {intergenerational links, working together}

VI. *"These changes will affect any care that you and your family receive, so we want to know what you think. We invite you to join the Big Care Debate[38]. Let's shape the future of care together."* (HM Government, 2009, p.5) – {working together}

VII. *"To build this, we will need to make some big decisions and reach agreement across society on the right way forward for England. So, this is the beginning of a Big Care Debate."* (HM Government, 2009, p.4) – {working together}

VIII. *"The enormous sacrifices of the wartime generation demanded that there had to be an ambitious programme for quality healthcare, alongside economic reconstruction. Now that same generation is owed a further debt of dignity: to receive care and to stay in their homes as long as possible."* (HM Government, 2010, p.2) – {intergenerational links, morals and ethics}

IX. *"Caring for older people and those who need support is the hallmark of civilised society."* (HM Government, 2010, p.2) – {morals and ethics}

X. *"It is not right that people already struggling with the loss of independence – who have worked hard all their lives and saved for their retirement – are forced to run down their savings or sell their homes to fund their care. So this is a new chapter in the story of our welfare state: a chance to change the way care and support are delivered."* (HM Government, 2010, p.3) – {morals and ethics}

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[38] The Big Care Debate consultation followed the government's green paper Shaping the Future of Care Together (HM Government, 2009), which was published in July 2009, and it ran until November 2009. The government received 28,000 consultation responses and held 37 events around the country (House of Commons Health Committee, 2010).

XI.   *"To ensure that the National Care Service can provide high quality care, free when people need it, for generations to come, the Government believes it is right that everyone should contribute."* (HM Government, 2010, p.4) – {intergenerational links, working together}

Summary

The following table summarises the primary themes and sub-categories as identified in the forewords. These themes reflect the most commonly occurring topics in the representative macro level publications, in explicitly or implicitly stated ways. Many of the themes identified reflect parallels with the literature review, such as: the problematisations of ageing, a move towards a person-centred system in health and social care, and the intergenerational social contract between generations. In the same way, the research questions highlight certain aspects and guide me accordingly in my investigation to look for such themes as classification practices and factors that can shape the discourses on old age.

Main themes	Sub-themes
Categorisations of Old Age	Recognition of social issues linked with an ageing population
	Normalised expectations of older people
	Quantification of older people as a group
	Use of standardised measures e.g. quality of life
Modernisation	Reforming services
	Promoting independence and person-centricity
	Choice and consumerism
	Privatisation
Legitimising Technologies and Institutions	Recognising challenges
	Reassurance about future success with technologies
	Building confidence in national and local bodies
	Emphasis on localism

Togetherness and Social Responsibilities	Emphasis on intergenerational links
	Identifying threat factors upon which the provision of care depends
	Emphasis on morals and ethics of caring for old age

Table 5.1 The list of themes – macro level foreword analysis

The next section investigates the use of visual elements in macro level publications. The themes identified in this section will inform those that follow; nevertheless, a search for new trends will also continue.

5.1.3.2 Inside the government documents: The use of illustrations and case descriptions

In this section, themes will be drawn from the messages in government publications that are conveyed through the use of illustrations, diagrams, case descriptions, and quote bubbles. The analysis of illustrations and visualised forms of texts are important because they reveal new meanings that may not have been directly or explicitly stated in text. For example, even though Fairclough's focus in his critical discourse analysis approach is directed upon the verbal elements of communication, he reflects that, "very often visuals and 'verbals' operate in a mutually reinforcing way which makes them very difficult to disentangle" (Fairclough, 1989, p. 28). It is common in discourse analysis to examine aspects of culture as expressed through media, both as support for text or on their own (Giaschi, 2000).

The visual materials grouped in this section have been detached from white papers, green papers, guidance documents, flyers, and easy-read government documents[39]. These documents have been parts of the data 'pool' in which 40 macro level documents were clustered together [as explicated in the previous chapter]. The specific visual elements have been extracted from the macro level data pool based on their capacity to convey implicit or

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[39] The 'Easy Read' versions of government documents serve the purpose of creating an accessible way to engage with and inform the public. Based on the requirements by Equality Act 2000, government organisations are bound to ensure that their services and publications are accessible to disabled people, after which large print and Easy Read versions became more common (National Archives, 2017).

explicit messages that relate primarily to telecare technologies, as well as to the discussions about older people. Moreover, the themes identified in the foreword analysis have given cues as to what general topics are expressed in these publications.

Since the volume of visual objects in the data pool has been high, some objects were eliminated and only the most striking visuals remained. In Appendix D, the full list of visual objects - each uniquely identified with a code - can be accessed. Also, the list of references indicating where the diagrams have been extracted from is accessible in Appendix F.

Overall, 25 diagrams, illustrations, case descriptions, and other visual materials have been analysed. 'Person-centric care', 'feeling in control of own care', 'independence', 'choice', and 'prevention' are the key words that have appeared the most frequently. These visuals were categorised under themes and sub-themes. The themes identified have been placed in the table below, with several new sub-themes and an emerging fifth main theme.

Main themes	Sub-themes	Code of the visual exhibits (as given in Appendix D)
Categorisations of Old Age		
	Classification by dependence/independence	D1, D8, D9
	Older people as a burden	D7
	Older people as vulnerable	D15
	Classification of older people versus working age people	D7
	Quantification of older people as a financially secure group	D7
Modernisation		
	Choice, control, self-care	D5, D8, D25
	Independence and person-centricity	D4, D6, D8, D23

	Building confidence in technologies through case studies	D9, D10, D11, D12, D17, D19, D22
Legitimising Technologies and Institutions		
	Introducing telecare technologies through descriptions	D13, D14, D15, D16
	Gatekeeping services through new roles given to professionals	D13, D15
	Financial justifications	D13, D23
Togetherness and Social Responsibilities		
	Togetherness	D2
	Intergenerational links	D7
Public Accounts of Technology Experiences		
	First-hand accounts of positive experiences with telecare services	D3, D6, D18, D19, D20, D24
	Second-hand accounts of positive experiences with telecare services	D9, D11, D12, D17
	[Absent Theme] Accounts of adverse experiences with telecare services	N/A

Table 5.2 The list of themes – macro level visual representations. Note: One item of Appendix D may fall under two or more categories.

In this section, the illustrations, diagrams, case descriptions, and quote bubbles that have been identified in Appendix D have been clustered into themes. It has positively been noted that the four themes which emerged in the foreword textual analysis recurred in the visual

representations as well - with similar, yet distinct, sub-categories as identified in the table above. This leads to the *concretisation* of data, which I define as: the process of developing concrete data clusters by validating data trends from different sources in order to create a consistent narrative of the issue at hand. In addition to the four themes, an additional category has emerged in this section, which represents the public accounts of technology user experiences.

Because the focus on absences or omissions has been an ongoing process during document analysis, an absent theme has been noted in the analysis of visual elements. None of the visual elements in the 40 macro level documents have addressed the accounts of adverse experiences with telecare, neither as a first-hand or second-hand account from older people who have been using care technologies. This leads to a noticeable partiality, because the visual accounts of positive experiences have been overwhelmingly deployed in the publications.

5.1.3.3 Macro level summary

In this section, five main themes have been identified through the foreword analysis of 7 publications as well as the visual analysis of 20+ visuals from national documents. Data have been classified under the following themes, each one encompassing several sub-themes.

1- Categorisations of Old Age
2- Modernisation
3- Legitimising Technologies and Institutions
4- Togetherness and Social Responsibilities
5- Public Accounts of Technology Experiences

The macro level document analysis forms the backbone of this research because it provides a trail of topics in terms of policies and strategies that concern old age and telecare. At the meso and micro levels, the local authority represents a localised form of government, and the telecare monitoring centres represent a domain of practices. In terms of strategies and implementation practices of care and ICTs, these levels reflect the central government's

ways of functioning. Therefore, the themes identified in this section can be *concretised* once more with the thematisation process of meso and micro level data.

5.2 Meso and Micro Levels: Surrey Telecare

In this section, data descriptions and classifications focus on the data collected about the telecare partnership and local authority (meso level), and about telecare monitoring centres (micro level). The background information about the Surrey Telecare partnership has been collected from: a) online sources and b) site access negotiation meetings that were conducted prior to the fieldwork. The rest of the descriptions (starting from Section 5.2.2) are based on: a) local documents obtained during the fieldwork b) interviews and c) observation notes. The local documents collected during fieldwork will be used as references for some descriptions and visuals. (The isolated list of references for these local documents can be found under Appendix F.)

Some quotes from the interviews and the local documents have been placed within the descriptive text. (An isolated of quotes is accessible in Appendix E.) After presenting the meso and micro level data, the main themes from the macro level will be utilised in a way that accommodates any newly emerging themes.

5.2.1 Background information: Commissioning of telecare services

The commissioning process at the county level entails identifying, buying, and monitoring services - such as mental health, housing, and telecare services - for the use of residents. Telecare services are commissioned by the Adult Social Care department of Surrey County Council. Surrey Telecare, which was set up in 2012, is a partnership programme that involves 11 borough and district councils governing at the local level, as well as the overarching Surrey County Council that administers major local services in the county of Surrey. The borough and district councils of Surrey are as follows: Elmbridge Borough Council, Epsom and Ewell Borough Council, Guildford Borough Council, Mole Valley District Council, Reigate and Banstead Borough Council, Runnymede Borough Council, Spelthorne Borough Council, Surrey Heath Borough Council, Tandridge District Council,

Waverley Borough Council, and Woking Borough Council. These boroughs and districts have their own dedicated community alarm and telecare teams (apart from Mole Valley District Council and Reigate and Banstead Borough Council, which are the regions with a single mutual dedicated team) who operate under Surrey Telecare (Surrey Telecare, 2012).

In an average commissioning cycle, the public's need for those services is identified. The commissioning process usually follows the publication of relevant national white papers - as in the example of policies related with the ageing demographic and assistive technologies, wherein the need for telecare services was brought under scrutiny. In the example of Surrey, dedicated community alarms and telecare teams were given responsibilities by borough and district councils to cover the social care needs of the local population. With the collaboration of NHS Surrey and the Surrey councils, Surrey Telecare became an official partnership in 2011 by evolving from the community alarm partnerships that had existed earlier. At the time of the study, there were 4 providers of technologies and services. The two control rooms providing telecare monitoring services that have been included in the case study used the products of two private companies: Tunstall for hardware, and Jontek for software. The diagram below presents the central Surrey County's commissioning cycle (the process through which services are provided by Surrey's local authorities and private sector organisations). This cycle also provides a good summary of how the relationships between local authorities, market and interest groups are formed.

Figure 5.4 The commissioning cycle at Surrey County Council (Figure taken from Surrey County Council, 2011). Similar models are followed by all councils throughout England.

At the 'Analyse' level of commissioning, gaps, needs, areas of improvement, and successes are identified. The service user and carer involvement can be key at this stage for receiving rich input. Local user-led organisations (ULOs)[40] and other interest groups are invited. Other stakeholders involved in this stage are current and potential future service providers who are asked to reflect upon the state of existing services and what the future opportunities can be.

At the 'Plan' level, roles are defined and agreed on by partners, service users, and interest groups, from which representatives are identified. Communications are delivered by ULOs and other groups. The focus groups are created at this stage, and evaluation criteria are proposed. The design reporting is also tuned. The council then opens the market for procurement, and timescales and a planned approach are shared, with feedback loops incorporated in the process. Market stakeholders include voluntary, community and faith

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[40] "A ULO is an organisation that is run and controlled by people who use support services including: disabled people, people who use mental health services, people with learning disabilities, older people, and their families and carers" (Social Care Institute for Excellence, 2009).

sector (VCFS)[41] organisations – the third sector – who work together with councils to ensure the right support is given to the projects that would give efficient and effective outcomes for residents. The private and third sectors inform of any needs for training. During the 'Analyse' and 'Do' stages, the commissioning of the project requires the work of research and consultation managers, commissioning managers for Adult Social Care, project officers, and community support directors at the council's end.

Implementation and contract management happen at local levels in the 'Do' phase, meaning that community and telecare services managers, as well as telecare supervisors, take the lead. These are people who are knowledgeable about the operations of their local community alarms and/or telecare teams. At the 'Review' level, service users, carers, and partners contribute to qualitative reporting that is facilitated by the market providers. Individuals with roles such as project officers, business intelligence consultants, and finance analysts work together to monitor the process and create evaluation reports for the research and commissioning managers. These performance and finance data are then reviewed and fed back into the 'Analyse' stage for further amendments/improvements in the services, and for future commissioning projects.

Although I have defined telecare previously, it is worth clarifying the application of the term in the case of the Surrey Telecare initiative. Throughout the Surrey site, 'telecare' is classified as a system with any add-on to community alarm services. For further clarification: a community alarm is composed of the home unit/Lifeline and the pendant on its own; any addition of a peripheral to this configuration transforms the system into 'telecare'. Peripherals can include devices such as: fall sensors, bed sensors, smoke detectors, and so on. However, the use of the term community alarm has been becoming obsolete over time, and it is sometimes replaced by telecare because of the overlapping basic functions of both systems. Although Surrey Telecare provides linked smoke detectors in their basic package of telecare services, other kinds of sensors and detectors are purchased as extras. At the time of the study, several types of peripherals were offered as extras under the Surrey initiative; however, not all types were deployed equally. Also, users with specific needs were given the chance to purchase peripherals independently from other suppliers, on the condition that these devices needed to be compatible with the home unit device.

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[41] "The term 'Voluntary, Community and Faith Sector' encompasses all not-for-profit voluntary, community and faith groups, organisations, charities, social enterprises, cooperatives and mutuals, large and small" (Community Futures UK, 2011).

5.2.2 About the Surrey Telecare Partnership

Prior to the start of the strategy in 2012, when councils were not promoting telecare services, the add-ons of telecare still existed and were found in some individual's homes. Nevertheless, before the commissioning of telecare services in Surrey, telecare was not a service with a high uptake. The launch of community alarms in Surrey dates back to the mid-1980s, but telecare was only introduced around 2010, and not as part of a wider initiative, but as a system of limited recognition. At the time of this fieldwork (2014-15), Surrey Telecare Partnership was providing 13,000 residents with a community alarm, and it charged service users typically between £4 to £5 per week depending on which council area the individual lived in (Elmbridge Borough Council and Surrey County Council, 2014). While everybody has the right to access telecare services, the majority of users are older people and/or people who live alone. More than 8 out of 10 people who use telecare are aged over 65; almost 7 out of 10 individuals benefitting from a telecare service live alone, of which over 7 out of 10 have no other form of care (formal or informal, paid or unpaid) in place (Adult Social Care - Surrey County Council, 2013).

PROFILE OF PEOPLE SUPPORTED BY TELECARE (age)	2010/11	2011/12	2012/13
Aged 18-64	13%	9%	12%
Aged 65 +	87%	91%	88%

Figure 5.5 Profile of people by age supported by telecare. (Figure taken from Adult Social Care – Surrey County Council, 2013)

Telecare referrals come through various channels: social workers, GPs, nurses, occupational therapists, family, friends, carers, by the person themselves, etc. Until October 2014, regardless of the origin of the referral, the Surrey County Council offered community alarm and telecare services free for a 12-week trial to encourage people to use these technologies. This limited time promotion that ran for over 2 years was later withdrawn on the grounds that it had served its purpose of raising awareness of telecare and increasing the take-up of service [the notice can be accessed in Appendix B] (Surrey County Council, 2014a).

However, the 12-week trial period underneath the Surrey based CAT (Community Alarm Telecare Discharge Project) scheme has remained in place as part of the Surrey County Council's re-ablement service. CAT is one of the major sources of referrals for telecare services in the county. Under this scheme, service providers in the District and Borough Councils give a telecare alarm free for 12 weeks following discharge to help people maintain independence after returning home. Most of the time, hospitals or social care teams make the referral, although it is sufficient just to have been discharged from hospital to benefit from CAT. It has been reported that more than 7,000 people used this service between 2006 and 2011, and 70 percent of them kept the alarm after the free period (Elmbridge Borough Council and Adult Social Care - Surrey County Council, 2011).

Figure 5.6 The CAT Scheme. This countywide scheme was set up in 2006 to assist residents over the age of 18 following discharge from hospital (Figure taken from Elmbridge Borough Council and Adult Social Care - Surrey County Council, 2011).

The step to take after the referral is to contact the person's local community alarm team or call the Surrey Telecare helpline in order to be reviewed for installation. The local borough or district council community alarm team then reviews the referral form and contacts the client or their carer to discuss their telecare options. This entails recommendations of the type of sensors that might be the most helpful for the referred individual. In most cases, the borough or district team visits the person's home to assess the sensor requirements, ideally along with the referrer. Once the person, the referrer, and the borough or district team are happy about reaching the best solution for the individual's needs, the team installs the sensors in the house (Elmbridge Borough Council and Surrey County Council, 2014).
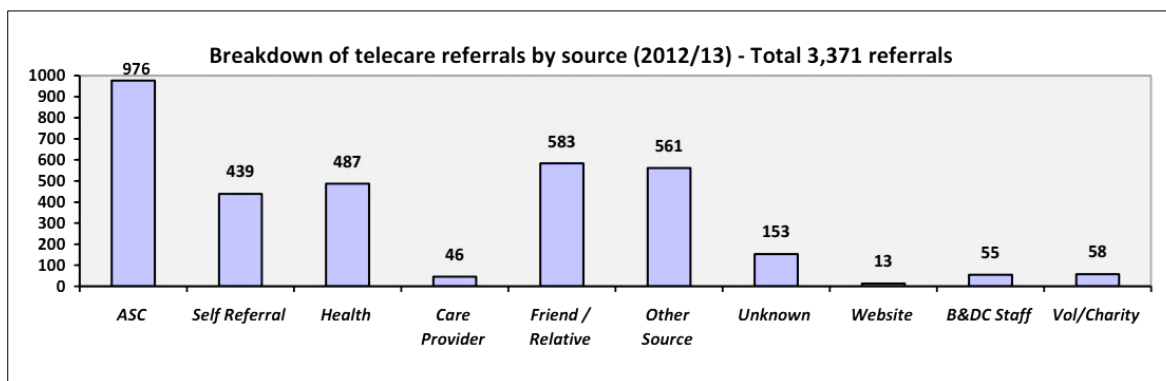
Figure 5.7 Breakdown of telecare referrals by source in Surrey, in 2012/13 (Figure taken from Adult Social Care - Surrey County Council, 2013). The adult social care team assesses the individual's circumstances and whether telecare is beneficial to them. Based on the outcome, they make a referral to the telecare team of the specific borough or district for the installation to take place.

According to a telecare information booklet published before 2012 (i.e. before the Surrey Telecare initiative started), telecare technologies had been installed in around 600 homes in Surrey (Elmbridge Borough Council and Adult Social Care - Surrey County Council, 2011). This number quintupled to over 3,000 homes after the first year of the Surrey Telecare partnership (Adult Social Care - Surrey County Council, 2013). Out of all the telecare equipment installed in homes, more than 3 quarters were heat detectors/smoke alarms, followed by bed sensors (4%) and falls detectors (3.5%) as the other main categories (Adult Social Care - Surrey County Council, 2013).

[Quote 1]

> *"The lifelines are 'mix and match' – they can connect anything to the home unit. All you need is a telephone line in the house."* (Operator MR, Mole Valley)

During the year 2012/13, Surrey County Council saw over 500 cases of service termination, of which almost 80 percent happened within or at the end of the 12-week trial period (Adult Social Care - Surrey County Council, 2013). The main reason for ceasing use of the service was reported to be due to the death of client (36%), followed by the client deciding not to use the service after the free trial (22%), and the client being admitted to nursing/residential care (21%) (Adult Social Care - Surrey County Council, 2013). When the services are ceased, the individual returns the community alarm and telecare equipment back to the

community alarm/telecare team of their district or borough who installed the devices in the first place. Unless the units are damaged or discontinued for a newer model, each unit is recycled and reinstalled in future home visits.

TELECARE EQUIPMENT CATEGORIES – volumes installed	2010/11	2011/12	2012/13
Alarms	1501	1701	2,992
Carer Alarms		26	72
Sensors			
Bed		38	100
Enuresis		0	1
Epilepsy		13	16
Chair		109	24
PIR / Exit		6	41
Pressure mats		4	0
Detectors / Alerts			
Gas / CO2		14	53
Smoke Alarms / Heat Detectors		384	1,915
Falls		34	90
Wandering alerts		10	2
Flood		1	2
Vibrating pillows		10	0
Safe Sockets		0	38
Bogus Callers		0	12
Pill Dispensers		58	52
Other equip (mainly keysafes)		198	13
Total items of equipment installed	2,564	2,616	5,427

Figure 5.8 Telecare equipment provision in Surrey. A total of 2,992 alarms and 2,435 pieces of telecare equipment were installed during 2012/13. Alarms represent 55% of all equipment installed under this service and telecare peripherals 45% (Figure taken from Adult Social Care - Surrey County Council, 2013).

Surrey County Council is the main body that deals with the commissioning of services, in close links with the local authorities in Surrey. Surrey's district and boroughs have their own dedicated alarm providers and local teams for community alarms and telecare systems. At the time of the study, there were a total of 4 monitoring centres (control rooms) in Surrey that received alarm calls from community alarm and telecare users from all these regions.

Out of these four centres, Mole Valley Monitoring Centre and Runnymede Control Room are the two sister sites that have regular contact with each other and have each other's backup servers in case of emergencies. As specified in the Research Design chapter, the Mole Valley

Monitoring Centre is the primary site in which my observations and interviews with the manager and operators took place, followed by the interviews with managers at the Runnymede Control Room. The data collected from the actors of central authority, Surrey County Council, will also be included in this section. For the purpose of clarity, I will divide the descriptions of the empirical case into three subchapters that are based on the geographical origin of data collection.

5.2.2.1 Mole Valley Monitoring Centre

Mole Valley Monitoring Centre (located in Leatherhead, Mole Valley) is the community alarm/telecare control centre that has the highest capacity in Surrey. The call operators of this centre receive calls from: a) private Lifeline customers (people who have community alarm and telecare services in their homes), as well as b) people in sheltered housing (people who live with a number of other people in the same residence, and have pull cords in their rooms).

At the time of this study, the monitoring centre had a number of permanent and temporary operators; however, they were all not present at the centre at the same time. Since the centre is open 24 hours and 7 days, every day and every hour has to be covered by operators who respond to the calls of service users. Shifts at the centre are 12 hours or 6 hours long, splitting the day into 2 or 4 equal shifts. The 12-hour shifts are between 8am-8pm and 8pm-8am, and the 6-hour shifts are between 8am-2pm, 2pm-8pm, 8pm-2am, and 2am-8am. There are around 10 terminals in the monitoring centre, and at least 3 or 4 operators are present at any time. Rotas are flexible, and there is a constant circulation of operators. New operators go through a training period of 3 months at the monitoring centre, and, for the most part, they learn the system hands-on while they answer the calls.

By the end of 2014, the structure of the organisation was changing; in addition to the services manager and the operators at the centre, a few of the permanent operators were promoted as supervisors to help the services manager with some of the responsibilities.

[Quote 2]

"It is interesting to get a snapshot of people's lives, learning about other people's perspectives of how they use the system, and bouncing ideas off each other. It is nothing personal that I prefer the changing rota of people; it is just different ways of working. In this circulation system, there is never a fall out."
(Operator MR, Mole Valley)

Mole Valley monitoring centre has a busy environment due to a high volume of calls. Even though the maintenance of alarms and telecare sensors is carried out only for the Mole Valley region, the centre carries out call handling for other regions of Surrey as well; Reigate and Banstead, including Redhill, Horley, Tadworth and surrounding areas. During one of the interviews around noon time, with the call operator ND (name anonymised) who is a regular/permanent employee, they answered around 7 calls in the span of 15 minutes. When a call is received from any service user, all the terminals - which are turned on and linked to a phone line - ring at the same time until the call is answered by one of the operators. This contributes to the high background noise levels in the centre, especially when a call comes in while all available operators have not yet finalised calls with other users. Operators wear headphones with a microphone; they need both hands free to input information via keyboard while the call is going on. The number of operators usually increases in the evenings and nights because the centre receives more calls from the service users in sheltered schemes, whose calls are answered by the on-site scheme managers until evening time. The operator MR (name anonymised) who worked at the call centre for 12 years at the time of the fieldwork provides a brief view of the past and present of the centre:

[Quote 3]

"12 years ago, when the volume of the services was not as high, we were reading books in between two calls. But when, in 2012, telecare came in, everything got busier, much busier. We used to log everything – write everything down and keep it in massive folders. Now everything is electronic, which means more clarity, sharpness and speed." (Operator MR, Mole Valley)

Generally, all monitoring centres are in contact with the blue light services: the ambulance, fire and police departments. Mole Valley Monitoring Centre is the only monitoring centre in Surrey that has links with the Visiting Response Service; a voluntary team from the fire brigade that operates together with the monitoring centre. This fire and rescue service

enables a physical response to a non-emergency care alert. During the part of fieldwork when interviews and observation took place at Mole Valley, the visiting response service was going through a pilot in the borough of Elmbridge, whose telecare calls are connected to Mole Valley. At first the project started with a 12-hour fire and rescue (6am-6pm) until they trained everyone fully and then upgraded the service to 24 hours. The fire fighters are trained to attend a situation if they have no other duties of their own at that moment, such as a fire emergency. In case they are not available, an ambulance is sent to the individual's home by the control centre. Based on the evaluation report by Surrey County Council, this service was always regarded as supplementary to, and not a replacement for, emergency services (Surrey County Council, 2014b).

Community alarms/telecare hardware and call handling equipment in Mole Valley are supplied by the Tunstall Healthcare Group. The Windows backups, software, and databases on which the officials use, store, modify, and delete data are commissioned to Jontek Ltd. The systems are ever-evolving. Before the Windows version of the system was introduced circa 2009, there was a standalone unit installed, which was reported to be not as user friendly and limited in capabilities. Based on Operator IA's (name anonymised) account, the software had been there for at least 10 years, and the current version is much simpler to use than the old versions of the system. Even communication by text (useful for people with hearing loss) had been introduced in the early 2010s as a new improvement to the latest system.

The installation process for telecare services requires a form to be filled in as a binding contract [see Appendix A for Mole Valley District Council's application form]. This form is signed on the day the devices are installed in the home of the service user by the installation team. At the end of each form, there is a unique six-digit *service user number*, which will then be used on the monitoring centre's database when the user data is inputted. The information given throughout the form is forwarded to the operators at the centre and then stored under the account of the service user. Various questions are asked to the applicant in the form, ranging from GP contact details to medical conditions (e.g., the mobility, hearing, and sight) of the applicant, from the medical conditions of the applicant's partner, to their emergency contacts. The 8-page form contains a page of terms and conditions that is signed by: the service user, the client (this is the person who pays for the service, which could be different from the service user), and an official on behalf of the borough or the district council. The final page is reserved for payments where direct debit details are taken from

the client. When the home installation is completed, the sensor type and serial numbers of each device that has been installed are recorded on a dedicated page of the form. This information is again inputted under the service user's profile on the monitoring centre servers.

After the assessment team members supply information through the application form, the paperwork is handed over to the monitoring centre. Even though the senior admin officer does most of the entry for the new users' details, the operators at the centre also act as the administrators of the system. After the entry, the information about the service user is used and expanded further by the call operators who receive calls from them.

[Quote 4]

"The more information, the better the calls can be handled at the centre." (Telecare Service Manager, Mole Valley)

When one of the client's sensors is triggered at home and sends a call to the centre, the centre is notified with a ringing noise and a message on the operators' terminals, which says 'incoming call'. When a call is answered by one of the operators, the terminal screen instantly brings up the profile of the service user whose ringing alarm unit it is linked with. The first item that an operator sees immediately after answering a call is the part with a larger font size called VIM – *very important message*. VIMs are not stored for each client; however, if a piece of information is absolutely necessary to know at the point of interaction for speed and safety, this field is always displayed upon call. For example, in the case of a person who has no speech, the operator who reads the VIM will not expect a verbal reply from the client, and will not keep shouting to be heard; instead, other methods of communication will be employed. Other VIM examples can include messages such as 'Lives alone', 'Call back at XX hour', 'Ask Yes/No questions only', and so on.

[Quote 5]

{How are VIMs decided?} "The operators know what they want to see and decide what to put there. Complete medical data clutters the space; so specific points are added instead. They can also access the history to see what they need." (Telecare Service Manager, Mole Valley)

The call screen of a service user looks like the depiction below:
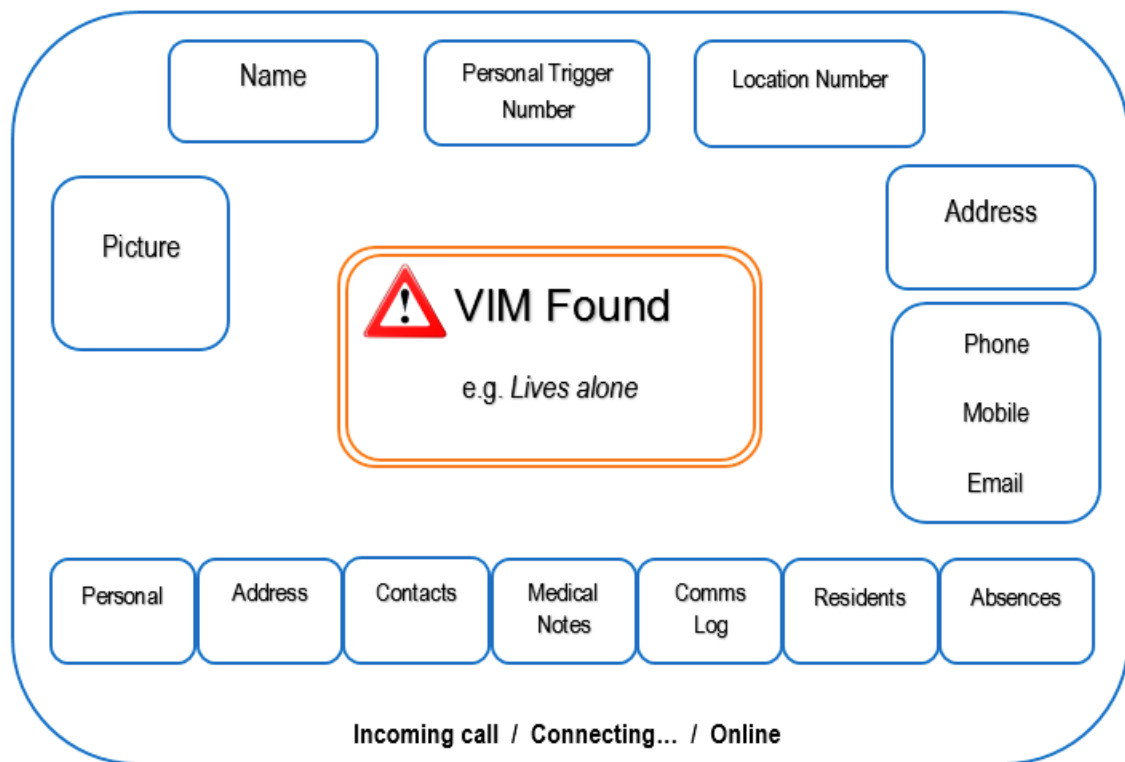
Figure 5.9 The profile of a service user, which appears when a call is accepted by A Mole Valley operator (Own illustration)

The users are colour-coded on the system, so every time a call is answered, the user's profile screen comes up with a specific colour on the top part. Each colour represents a distinct region/district/borough of Surrey (e.g. Mole Valley is purple and Elmbridge is pink). The alarms and sensors that service users have are also recorded separately on the user's profile, so the operators know which particular device the alarm is raised by when a call is received from a specific home. When the call is answered, at the top of the screen a unique device ID is displayed. For example, when the ID is in the format of TC_____, this information indicates that the call is originating from a telecare peripheral.

When a call is ongoing, a part of the screen shows information about previous calls the operators had with that client. All calls are logged on the system, under the section 'Communications Log', when the issue is resolved and/or the call ends. These logs elaborate on things to follow up on, duty arrangement (who is checking the client's house), and other

new details to help the operators with future calls from that client. The majority of calls at the centre come from pendants, and the most common type is false alarms (very frequently the client accidentally pushes the pendant button). Any call, including false alarms, needs to be logged for monitoring purposes and as a precaution for litigation cases. The service users' data are stored on the system for a minimum of 2 years. The calls that are recorded stay on the system for around one year. The telecare services manager at Mole Valley reflects on the shortened expiration dates for user data and call recordings:

> **[Quote 6]**
>
> *"A year ago [in 2013], it was different, and we could reach calls from 7 years ago if the client had been on the system for that long."* (Telecare Service Manager, Mole Valley)

The concerns of service users range from simple queries to asking for help. As for the queries, service users sometimes use their pendants as a way to call the centre to ask when their carer or a support worker will arrive at their house. In some cases, the individual feels lonely and frightened, and makes a quick call via their pendant. Clients who do not regularly use their pendants are asked to test their equipment once a month by connecting to an operator. Despite the vast majority of calls being false alarms, the operator IA (name anonymised) stresses that:

> **[Quote 7]**
>
> *"Each call is an emergency, until you find otherwise. We answer each call with urgency and as quickly as possible within our capacity."* (Operator IA, Mole Valley)

Escalation procedures take place when a service user clearly communicates their need for medical attention, but it is also common to not hear the user's voice when the call is answered. The Lifeline units have a voice range of 50-100 metres, but the person who has pressed their pendant might be outside this range or they might be unable to answer due to various reasons. The operator immediately calls the house of the service user. If the phone is not picked up, they escalate the issue. In this case, a nearby support worker is called by the operator and directed to the house of the service user. If support cannot be reached, ambulatory services are called based on the possibility that the client may be unconscious. Support workers who offer visiting services are put through medical training in order to

relieve some of the pressure on healthcare services and the fire brigade visiting response services. In Surrey, an average emergency ambulance callout costs an estimate of £230 in 2013/14, but if admission to A&E services is required after the callout, the cost can go up much higher. For cost-effectiveness reasons, the centre occasionally calls doctors to visit the service users' houses for non-emergency cases.

On average, the 999 services are called 26 times a day and around 9,500 times a year at the Mole Valley Monitoring Centre. When required, the centre shares the data they keep about the clients over the phone with the blue light services. Since the centre has a data share agreement with the clients, there is prior consent given to share information such as: the client's key safe code (to open the safe outside the house for the keys), date of birth, medical details, and so on. If a person needs an ambulance, the ambulatory services always refer to the operator for up-to-date information about the client.

The operators can also see on the system when a service user's home unit has been switched off and disconnected from the network. This can indicate either that the client is admitted to hospital, hence the unit has been turned off, or that something is wrong at home, such as an electricity cut-off due to unpaid bills. The unit can only work up to 36 hours on battery, and then it disconnects. When this situation occurs, the operator needs to investigate and check the logs to see whether a previous operator logged data about cases such as admission to hospital, going away, etc. In the absence of this information, the operator firstly asks an emergency contact or a family member about the service user's situation.

Since operators are the prime users of the response side of technology where information is stored and support is made possible with the use of resources, they are also the stakeholders who realise the need for change and improvement on the system. Before a new version of the system is rolled out, the manager and the operators have discussions about what new features might be useful based on their experiences of the current system.

[Quote 8]

"The more we use the system, the more we can suggest points for improvement. The system holds information in a sensible manner and has quite a lot of features. But system awareness is the priority over system improvement."
(Operator IA, Mole Valley)

Some operators have also put forward suggestions in terms of the features of telecare technologies, such as:

[Quote 9]

"Having microphones on the pendants would be very quick and easy. This would be extra beneficial to let the client know that the help is coming, when they have an issue in the garden, outside their home. If they have fallen far away, the call centre cannot get much information because of not being able to hear them. Also, if those clients with no speech had had a pendant with 2 different tones [to answer yes and no], that would have been much better." (Operator MR, Mole Valley)

All the operators I had an interview with during the field study were experienced permanent staff members who were well-informed about the systems they were using, about older people who called the centre on a frequent basis, and about those standards that were related to the monitoring centre's performance and accreditation. As mentioned previously, the industry body for technology-enabled care in the country is known as the Telecare Services Association (TSA). TSA helps by providing guidance and sharing good practice to those organisations that commission and supply care technologies, including telecare. The organisations that comply with the TSA's industry standards are accredited. At the time of this field study, the TSA was not yet publicly approved by the Secretary of State; however, the value placed on its accreditation was still high.

Each year, the Mole Valley Monitoring Centre goes through the accreditation process with the weight put on certain criteria, such as the percentage of calls answered under a certain time limit and how valuable the clients think the services are (Mole Valley District Council, 2013a). The Mole Valley monitoring centre is one of the organisations that is accredited and annually audited by the TSA. The TSA supplies manuals, training guidelines, procedure information and so on; however, the financial part is not handled by this association, but by a separate company.

The *Mole Valley Telecare Annual Report 2012/13* includes annual figures for the criteria borrowed from the TSA's accreditation framework:

[Quote 10 – Local Document]

Total Calls: 156,278
% of Calls accepted within 30 secs: 94.05
% of Calls accepted within 60 secs: 98.16
% of Calls accepted within 180 secs: 99.85

Telecare customer satisfaction: 98.4%

According to the TSA guidelines of 2011, the achievement rate of 98.5% of alarm calls being answered within 60 seconds was satisfied by the Mole Valley Monitoring Centre, with a 1% tolerance (Mole Valley District Council, 2013a). At the time of the study, even though Mole Valley satisfied the time requirement, the centre was not yet registered with a Platinum Member status by the TSA (the highest status attained in the provision of telecare services). The reasons as to why were not elaborated on in the report.

5.2.2.2 The Safer Runnymede Control Centre

Mole Valley's sister site, Runnymede Control Room, also caters for community alarm and telecare calls from individual clients; however, these calls are from the Runnymede region only. Unlike Mole Valley, this centre also monitors the CCTV cameras of several boroughs and districts, meaning that the Runnymede officials are in close contact with the police department to supply CCTV footage for incidents.

The Surrey Telecare Initiative's more local name in Runnymede is known as the Careline service, which is a partnership between Runnymede Borough Council's Community Services and Safer Runnymede departments (Runnymede Borough Council, 2013a). As in Mole Valley, telecare in Runnymede is also classified as the add-ons to the community alarm services (where any peripheral added to the alarm unit counts as 'telecare'), and it is also offered for free following hospital discharge under the CAT scheme (Community Alarm Telecare Discharge Project). In Runnymede, hardware (alarm and telecare technologies) are also supplied by Tunstall, and software (at the monitoring centre) also by Jontek. Runnymede telecare teams also receive a high volume of referrals from the discharge teams at the hospitals. But Runnymede telecare services cater to a smaller population compared to Mole Valley; the number of calls from Careline users is much lower at around 20,000 per

year. At the time of the study, the Runnymede centre had 1,400 Careline clients. Each of these service users are visited in their homes by the installation and supervision team twice a year. They assess whether the current configuration of technologies is satisfactory for the client or whether there is a need to introduce a certain telecare equipment to the environment.

The community services manager and the telecare supervisor in Runnymede - who are responsible for a team of operators and for handling the telecare installation - consider the provision of telecare services as a form of competition between the control rooms in other boroughs. How the control rooms supply telecare services, and how they improve services/technologies based on inputs and negotiations, are important criteria for the effectiveness of telecare services. They highlight the reactive nature of the environment in Runnymede Borough Council, which encourages more interaction.

[Quote 11]

"We are partners and competitors at the same time." (Community services manager, Runnymede. About Mole Valley)

Mole Valley and Runnymede control centres are known to be sister sites (who are in regular contact and keep each other's backup files in case of emergencies); however, they are also sharing in a budget pool for the resources within the county. The financial decisions taken for the allocation of the county's resources to support these services is based on the performance of the centres. The rivalry may depend on the competitive edge gained by the innovative telecare products and processes acquired by the borough. The centres are expected to prove to external auditors that the service users are benefitting from these services. The accreditation process offered by the industry body Telecare Services Association (TSA) sets up parameters for organisations that provide care technologies to be in compliance with certain industry standards. As in the example of Mole Valley, The Runnymede Control Centre goes through the TSA auditing process too. Based on Runnymede's *Careline Annual Report 2013* (Runnymede Borough Council, 2013), the centre met the standards of accreditation in 2013 with the following figures:

[Quote 12 – Local Document]

% of Calls accepted within 60 secs: 99.91
% of Calls accepted within 180 secs: 99.99

Complaints response: 5 working days (max)

User satisfaction rates
  - happy with the quality of service received from the centre: 100%
  - happy with the speed their call was responded to: 100%
  - felt that Careline represented value for money: 83.6%

Two interviewees reflect on the evaluation questions of the TSA, and state that the parameters tend to be very generic and sometimes not very useful in assessing the context.

[Quote 13]

"If someone [has telecare and] is not using it, then there is no value there. Or if they have a fall and want help, friendliness is not the most important factor. The more important questions would be:

- *When you were using the telecare service, what were the circumstances?*
o *Therefore, were you happy with the response?*
o *Therefore, was it good value for money?"*

(Community services manager, Runnymede. Emphasis added by the interviewee)

The audit by the TSA takes place annually in Runnymede. During the year prior to the audit visit, the Runnymede teams review every procedure. They try to find out whether there are any legislative changes or any changes in demands. At any given time during this period, the demand-led change can be submitted by one of the team members to be subsequently reviewed by the supervisor. The supervisor presents it as a request for change of a procedure, and, as a group, they determine whether it is an appropriate change. The community services manager (who also has the role of TSA librarian) issues a new procedure, ratifies with the supervisor, and then issues the procedure as version 0.1; if it is a significant change, then this change would be issued as version 2. A local demand-led change can cause a potential new build. Even though the system is almost always only subtly updated to a new version, it is local demand-led. Interviewees state the importance of having a 'version control documentation', and a 'version control process'.

[Quote 14]

"The version changes are almost always locally led, but if the central government comes up with a new set of priorities in a specific context, then we have to comply with the national policy change. It does not happen very often, fortunately, as there is a huge amount of procedures." (Community services manager, Runnymede)

The community services manager and the telecare supervisor emphasise 'the forward thinking and innovative state' of their services. They launched a service called *Care Call* in 2013 to complement telecare services. Care Call is a proactive calling service which does not wait for the client to call; instead, the operators call the service users at designated times to check on their wellbeing.

[Quote 15]

"Care Call gives another level of reassurance to residents and to the community." (Community Alarms and Telecare supervisor, Runnymede)

The community services manager had been leading a team of 20 operators at the time of this fieldwork. All 20 were permanent staff members who had been working at the centre for a long time. The manager stated that most of the telecare clients know the operator they are speaking to because of the relationship of familiarity being built through numerous emergency or test calls. The second interviewee, the telecare supervisor of Runnymede, worked with a small team of 4 people who are responsible for conducting assessments in houses, completing installations, and visiting for check-ups.

There is no formal triage system implemented in the call centre because they are not legally and medically able to decide on behalf of the blue light services. If someone takes a fall, an operator asks whether the person is hurt, and whether they need an ambulance. If the operator is in doubt, they will call an ambulance[42]. Beyond this, the operator is not able to triage medical conditions. The medical services may ask the operators whether the person is conscious or not, or if they are breathing. This means that operators act as information mediators, and tell paramedics the most important information they have on the system about the service user, as well as about what they have just communicated with that person.

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[42] There was no fire and rescue visiting service offered in Runnymede, at the time of study.

[Quote 16]

"The ethos is: respond quickly, respond as an emergency, and then scale down the response from that red level of alert. It is much easier to de-escalate then escalate." (Community Services Manager, Runnymede)

'When does the service stop?' was a key question that was discussed with the Runnymede interviewees. There was no definition for when the care stops within the network of telecare; whether it is when a person is admitted to the hospital, or whether there is a different form of resolution. It was identified as an emotive area by the interviewee. However, interviewees reflect that some procedures have been informally defined; for example, as a general rule of thumb, after contact with the emergency services is established, the control room maintains contact with the service user so that the person knows they are not alone, and they can keep calm.

[Quote 17]

"When a call is taken by an operator, we always assume it is taken with the correct decision." (Community Alarms and Telecare supervisor, Runnymede)

Both interviewees emphasise that they support the operators in calculating the best action with knowledge and experience, and empower them to complete a process as they see fit. There are a series of guidance notes, protocols, and supervision by managers, but the difficulty lies in forecasting the relationship between a call taker and a service user at that given time. Since operators have a needs-based responsibility, the response level of the scenario is entirely due to the decision-making process of the staff member. Because of owning a distinct knowledge pathway that has evolved over a time frame, the interviewees acknowledged that having this knowledge base enables them to be considerate.

[Quote 18]

"However, if it doesn't work in less than 1 percent of 1 percent, we are still prepared to look at it and make subtle changes to that context when we can. Because if we see a benefit why wouldn't we offer it? We are also happy not to make any changes, because our procedures and protocols are very resilient.

When the managers give their teams the empowerment to make the correct choices, and if the customers believe they are not – but the investigation says they actually were [43] – then, we would explain to the customer why we believe the choice was correct." (Community Services Manager, Runnymede)

The community services and telecare teams in Runnymede work on their design pathways continuously by being in constant touch with support groups (such as older people's families), and not only with the service users. This was elaborated on with an example: in those situations where the older person neglects to give the call centre consent to call their family when an ambulance is dispatched, the call centre practises the action of calling the family regardless. This was a result of the consultation with the support groups, by examining the conditions of the older person's care and what steps could have made it better and more conflict-free. In the past, there were cases where the families were very concerned about their relative when they heard about the call for ambulance only after the person's return back home. Some of these cases resulted in complaints. In the same way, some older people did not want their families to be notified in emergency situations; however, if the family is interested in receiving updates about all emergencies, the needs of the person's support group was prioritised by the call centre.

For the needs-based services to work more efficiently, the aspect of physical proximity to service users was discussed during the interview. Both interviewees highly support the idea of localism. It is also noted that, to be able to provide a bespoke service as a team to different individuals, the telecare team should be able to go out and spend time with their clients whose needs are unique.

[Quote 19]

"Understanding the local needs of the individual from a perspective of a local person, gives Runnymede's operators an insight that a remote team cannot give in the same way." (Community Alarms and Telecare supervisor, Runnymede)

Another factor that enables the dispersion and accessible supervision of telecare services in Runnymede is the coexistence of local government departments in the same building; the Runnymede Civic Centre of Runnymede Borough Council hosts various teams. The

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[43] All calls received at the centre are recorded to be referred to in case of complaints. The investigation after a complaint takes place with the involvement of community services, telecare managers, and the operator.

community services team and telecare supervision team are therefore located within the same premises. The presence of the social services team in the same civic centre also creates an opportunity for negotiation with the telecare supervision team about what equipment might be useful for a certain individual in those cases where an individual with specific needs is assessed to be a recipient of social care services. The interviewees therefore reflect on these dependencies and linkages between the departments. Based on the estimation of the community services manager, 80% of communications within the building are inevitably linked to the community alarms and telecare team. Several teams of Runnymede Borough Council, mainly the community services, rely on the information that is supplied by the telecare supervision team via administrative processes or via personal relations.

More insights were captured during the interview regarding the future of telecare and the most common types of resistance they witness. Both interviewees reflected a positive and enthusiastic attitude about the future of the services.

[Quote 20]

"People are now aware that there is more support out there and go to local councils to ask questions. In the last twelve months, these changes have been observed. At the moment, we are still dealing with some old school users, and sometimes it is hard to get stuff in people's properties. The 'I am not old' resistance sort of thing." (Community Alarms and Telecare Supervisor, Runnymede)

[Quote 21]

"However, I truly believe that the next generation and two generations coming through will have less resistance because they have grown with it, and are more aware. They expect more and demand more, so they will go looking for it. Certainly, in the next ten years, there will be a big change in the demand of these support services, because people would want safer homes. It will grow. It will be a <u>new tradition</u>." (Community Services Manager, Runnymede. Emphasis added by the interviewee)

5.2.2.3 Surrey County Hall

The interviews that took place at the Surrey County Council's County Hall involved three people: 1) the senior manager and telecare lead for Surrey, responsible for commissioning adult social care services; 2) the project officer for adult social care policy and strategy; and 3) the business intelligence consultant involved in Surrey's telecare projects. During these interviews, the performance side of services was discussed, which highlights how the data stored in monitoring centres is aggregated together.

The commissioner and the project officer both state that obtaining data on the performance of the system is challenging.

[Quote 22]

"Even though there is rich data coming from the monitoring centres, most data are 'dumbed down' due to politics" (Project Officer for Adult Social Care Policy and Strategy, Surrey County Council)

By 'dumbing down', what is implied is what data is kept and what is not given in reports. The performance and financial data processes are separated and are given to separate teams, who are responsible for the performance and the financial reports, respectively. It is reflected that the performance processes take a back seat; the greater attention is given to the finances. The finance side deals with tasks such as how much to reimburse to boroughs.

The commissioner describes the county's agreement with district and boroughs with the term 'service level agreement'. They state that this is because the county council does not place any sanctions over the services in boroughs and districts; they all form a system together, in which there is information exchange happening between different organisations.

[Quote 23]

"We don't commission telecare as such. It is only a gentleman's agreement; a partnership between boroughs and councils." (Assistant Senior Manager - Commissioning Adult Social Care and Telecare Lead, Surrey County Council)

Usually every quarter, each borough and district that the county council works with supplies an abundance of information. The business intelligence consultant works to pull this data together and refine it into categories such as: how many referrals have been made, what the outcome of the referrals are, what equipment was placed into each individual home, what was the person's home situation when the referral was made (Did they live alone or were they supported already?), the outcomes of equipment, how many people in a day were supported by what equipment that were funded by the council or funded privately. The data from the performance forms that answer these questions are turned into a performance report to inform future commissioning intentions.

In the years prior to 2015, there was a form called the *BEAST* which contained the quarterly performance and finance data coming from the boroughs. After a re-evaluation period, the county council decided to trim it down and have separate forms for performance and finances. The business intelligence consultant who was interviewed was responsible for this performance form. Telecare is only one stream of tasks handled under business intelligence. This unit's work is mostly about commissioning. Lead commissioners who think of commissioning new services consult the business intelligence team to ask what the demographics look like, what impacts would there be if they rolled out the service right now, and so on.

During this period of fieldwork, the new slimmed down version of the BEAST was under review by the boroughs. The form of 2014-15, named the *Telecare Monitoring Form 2014/15* (Please see Appendix C for an un-filled sample of the form), was being prepared in a different way than the reports of 2012-13 and 2013-14. After the re-evaluation and the decision to trim the formerly detailed form, all 11 districts and boroughs were given the opportunity to decide what criteria were necessary to include. That is because the borough teams were believed to know best about the impact and relevance of things in their own context.

> **[Quote 24]**
>
> *"The reduced form tracks referrals (brand new people), and the first piece of telecare equipment that are added on the community alarms (existing people). We cannot collect all the information such as dropouts, because it would turn into the BEAST again, with all the details. This needs to be a smaller form, and easier to fill each quarter."* (Business intelligence Consultant, Surrey County Council)

The council was in their second quarter of the year (July-September) when the interviews took place in September 2014. At the end of each tax/legal year (April), they bring together all the data of telecare from the four quarters and produce the annual report. The quarterly and annual reports are presented in Quarterly Accountability Meetings in Surrey, where different topics about Adult Social Care are reviewed (of which telecare is only a small part). Other services under Adult Social Care that are discussed during these meetings are services such as: Meals on Wheels, Dial-a-Ride, Assisted Daily Living (ADL), and customer relations.

During the interview, the business intelligence consultant commented on the Surrey Fire and Rescue Service (SFRS) in Elmbridge, whose alert calls are directed to the Mole Valley monitoring centre. It was stressed that, when the SFRS responders are out, they do not go out as fire officers, but as telecare respondents, and use their dedicated Surrey Telecare vans. To access the houses of those who need help, they use the key safes outside the service users' homes, whose codes are supplied by the telecare monitoring centre. The business intelligence team pulls data together about the SFRS by using variables such as: the age range, gender, reasons and times for callouts, how quickly the call has been taken by fire and rescue, the average response time, and so on.

In the following months after the interview, the full report with the SFRS data was prepared and published in December 2014 (Surrey County Council, 2014b). It is reported that 2552 calls were received during the SFRS trial period by the Mole Valley Monitoring Centre from people with telecare or community alarms in Elmbridge, and 160 calls of these calls were passed on to the SFRS unit. This constitutes a referral rate of over 6%. The report also contains information on performance that the business consultant brought together, as well as financial data prepared by a separate team in Surrey County Council.
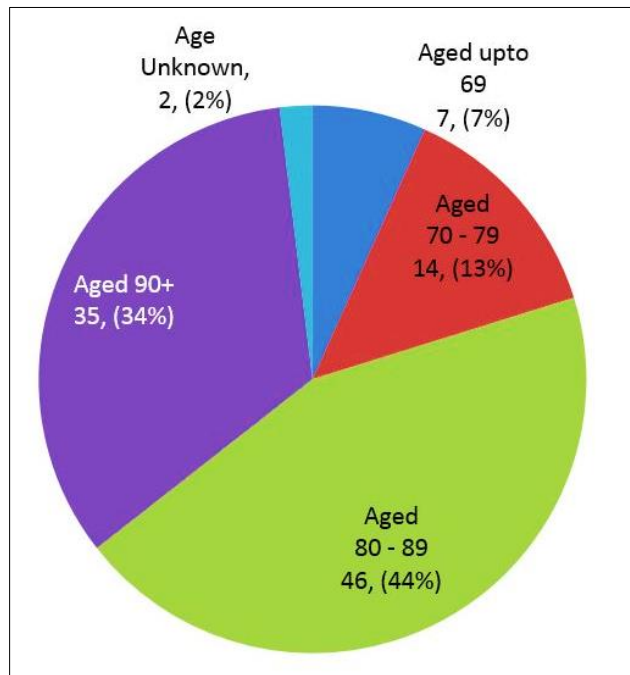
Figure 5.10 The number and percentage of telecare users by age visited by the Surrey Fire and Rescue Service (SFRS) during the trial in Elmbridge (September 2013 – September 2014). In total, 78% of the visited telecare users are aged 80+, and of these 34% are aged over 90 years of age. (Figure taken from Surrey County Council, 2014b).
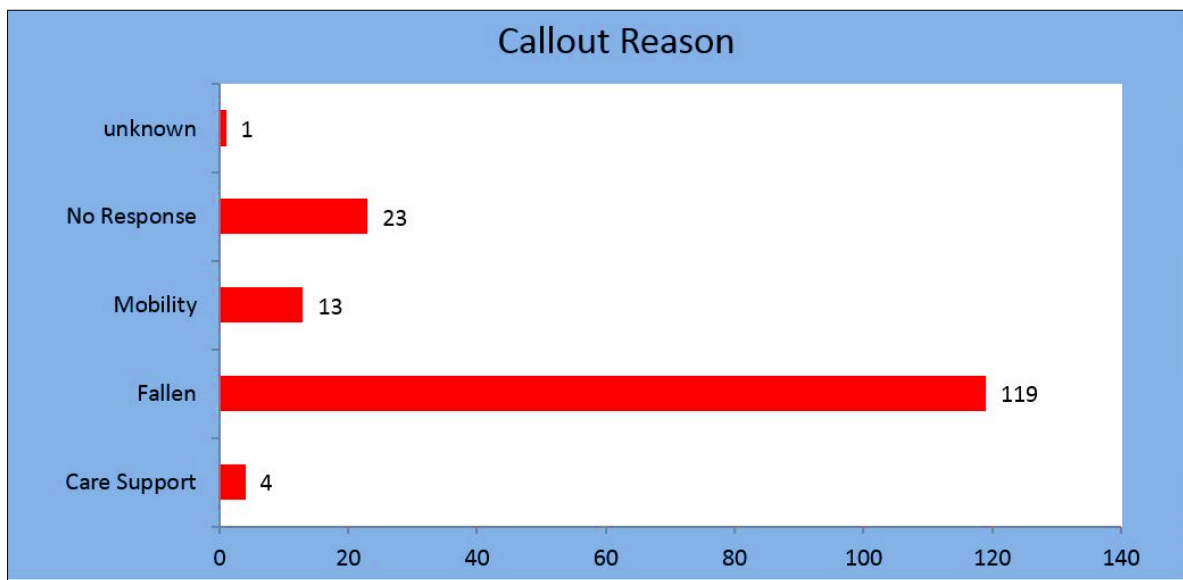
Figure 5.11 Reasons why the 24/7 visiting response unit attended telecare users' homes, by the number of calls. The majority of callouts (74%) were in response to a resident having fallen and not being able to help either themselves or their partner up. This increases to 83% when combined with clients being attended because of a mobility issue – such as being unable to get up from their chair (Figure taken from Surrey County Council, 2014b).

In the report, the financial team reported that each visit by the fire and rescue unit was costing less than a non-emergency ambulance callout by the South East Coast Ambulance Service[44] - £72 and £95 respectively (the figure £72 excludes project set up costs and overheads of the SFRS). The average response time for the SFRS was found to be 44 minutes, which, in most cases, was quicker than a Category C[45] ambulance service. The performance part of the report also concluded that SFRS responders were found to add value to the telecare services in various ways by providing services such as the following (Surrey County Council, 2014b):

[Quote 25 – Local Document]

Surrey Fire and Rescue Service Response teams have recorded the follow 'value added' by the service during its pilot phase year:

- *On 30 occasions - defective smoke detectors/alarms have been replaced.*
- *On 20 occasions - installed smoke detectors/alarms where there were none present.*
- *On 6 occasions - reported our concerns for the occupier's welfare to Adult Social Care.*
- *On one occasion - identified a previously unreported kitchen fire.*
- *A visual Home Fire Safety Check is carried out at all visits.*
- *Reported to Adult Social Care poor practises by regular attending carers.*
- *Security advice to service users.*
- *Assistance to the ambulance service when required.*

Nevertheless, considerations were put forward in the report by the intelligence consultant, because some issues were spotted during the analysis of estimated levels of emergency. Subsequent analysis of the call logs suggested that almost 10% of the calls to SFRS were inappropriate, because these cases were later escalated to an ambulance by the SFRS responders. According to the intelligence consultant, this raised concerns about whether they are delaying medical assistance, because if the SFRS had not existed in that scenario, an ambulance would have been called and medical assistance would have been reached straight away. This required discussions between the SFRS unit and Mole Valley teams to find the

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[44] The South East Coast Ambulance Service NHS Foundation Trust (SECAmb) is the NHS Ambulance Services Trust for south-eastern England, covering Kent, Surrey, West Sussex and East Sussex.

[45] Until 2017, ambulance calls were categorised as: Category A (immediately life-threatening), Category B (serious but not immediately life-threatening), and Category C (not serious or life-threatening). Category B was removed after 2011; therefore, only Categories A and C applied during the time of study. After July 2017, ambulance categories were revised and are as follows: Category 1 (Life-threatening illnesses or injuries), Category 2 (Emergency calls), Category 3 (Urgent calls), and Category 4 (Less urgent calls) (NHS England, 2017).

best pathway in related scenarios. The business intelligence consultant believed that a more intense triage system was needed, because a formal triage system would enable the operator to ask a series of questions to assess the situation in safer ways.
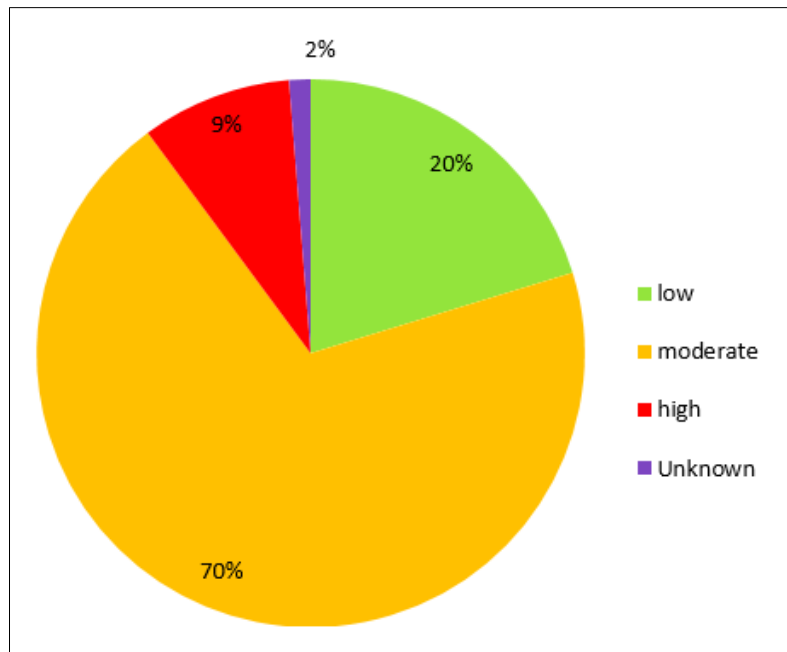
Figure 5.12 Estimated level of emergency. When each report comes through, a subjective decision is made upon the level of severity involved for the client. The following levels have been deemed to be an appropriate way of measuring this aspect of the service: 1) Low severity – the client is not in pain or at risk of harm, 2) Moderate – the client is not in pain but there is a risk of harm, 3) High – The client is in pain and or is at risk of harm; emergency services should be contacted. Most calls were classified as moderate in 2013-14 (Figure taken from Surrey County Council, 2014b).

The analyses and recommendations in the report were mainly directed to the adult social care commissioner and the adult social care strategy officer at the Surrey County Council (both interviewed earlier), who would make the final decision about the feasibility of the continuation of SFRS. The business intelligence consultant stated that it was very likely that SFRS would continue to be a part of the telecare response service. The possibility of rolling out fire and rescue services in a second region was also high because SFRS was making a positive difference.

[Quote 26]

"It makes a difference to fire fighters too, because when they are not putting out a fire they help the community in other ways, and they like it." (Business Intelligence Consultant, Surrey County Council)

5.2.3 Meso and micro level themes

The main themes identified for the macro level were also prominent in meso and micro levels of the case study. In addition to the five main themes, another main theme emerged in the meso and micro level data, which is relevant to old age identity. The local practices of Care Management were not reflected on in the macro documents. The list of primary themes in this section therefore becomes:

1- Categorisations of Old Age
2- Modernisation
3- Legitimising Technologies and Institutions
4- Togetherness and Social Responsibilities
5- Public Accounts of Technology Experiences
6- Care Management

An important sub-theme has also emerged under the first primary category, Categorisations of Old Age, which is directly related to data storage and data aggregation in the telecare monitoring centres. Through observations and interviews with meso and micro level actors, it is clear that the ways in which information is used at the centres or at the local authority level reflect a certain trend and a certain way of doing; these practices enable digital classifications.

The table below shows the six themes that have been identified in meso and micro level data. Quote references and summaries of data have been placed under *Examples* to describe the sub-themes further. To enable easy reading of the meso and micro level quotes, please see Appendix E for an isolated list of quotes.

Main themes	Sub-themes	Examples
Categorisations of Old Age		
	Digital classifications	+ Creating VIMs (Very important messages) on systems to indicate the most important details about the person who is calling. This label defines the person, usually with a concern attached to it. For example, "VIM: Lives alone". <u>Figure 5.9</u> and <u>Quote 5</u> + Old people are subsumed under different colours on the system based on the region they are located and based on whether they live in a home or sheltered housing. + A telecare user's profile is connected to the telecare equipment they use, whose serial numbers are placed under the profile. Therefore, the identification number of the equipment is primary to the system, which subsequently brings forward the profile of the user whose house has that specific device. + All calls conducted with the telecare centres are recorded and stored for a certain period of time. <u>Quote 6</u> + Telecare operators keep logs for each call, listing the reasons and resolutions. + All details as requested by the form in Appendix A are inputted to the servers under the individual profile. This includes a list of the telecare user's medical conditions, partner's medical conditions, and several emergency contact details. + The database keeps the pins for key lock boxes located outside the older person's home, in case an intervention by a neighbour, fire and rescue services, or by the ambulatory services is needed. This information is supplied by the telecare operator who contacts emergency contacts or services.

	Standardising the actions of older people	+ Older people are expected to make mistakes and falsely trigger alarms in their home by accident, such as mistakenly pushing their pendant button. + Operators expect to receive more calls during the night because the scheme managers at sheltered housing and the carers at homes usually work in the daytime and can support the telecare users only during a set period. + Older people are expected to be forgetful. For example, in the event when the signal between a main telecare home unit and the control centre is cut, it is assumed that the electricity bills might have not been paid. + In some cases, an older person's decisions are expected to be overridden by the decisions of their support group - for example, in a scenario when the telecare user does not want to notify their family if they are taken to hospital, but the telecare managers do so to avoid conflicts with the family. + Some older people are expected to reject technologies because of the frailty image attached to telecare. Quote 20
	Quantification of older people as a group	+ The visuals from local level documents represent statistical data and visual representations of data: Figures 5.5, 5.7, 5.8, 5.10, 5.11, 5.12 + Breakdown of many categories into numbers, as given in Telecare Monitoring Form (under Appendix C), such as the number of referrals, existing people supported by services, "brand new people" who received a referral, etc. + Quantification in the form of user satisfaction rates: Quotes 10, 12
Modernisation		
	Reforming services	+ Technologies in telecare centres are upgraded with new features and new categories of data by also taking into account the points identified and suggested by telecare operators. Quote 8

		+ The version of telecare alarms and sensors installed at homes are upgraded periodically, but it does not occur as often as the software version changes in telecare monitoring centres.
		+ Service users' complaints are taken into account to revise certain pathways of services. Quote 18
		+ Changes in national policies reflect on local services. Quote 14
		+ The Telecare Services Association's guidelines are followed at telecare centres.
		+ The procedures for financial assessment of individuals, which is conducted by the local Adult Social Care teams, are guided by current national guidelines.
	Independence / Dependence	+ Independence is the main message given in local telecare leaflets and booklets
		+ Telecare operators reflect on the service users' less dependence on carers and families.
		+ More dependence on the pulling cords (alarm) at sheltered housing during night hours
		+ More dependence on ambulatory services; in those cases where a call has been connected and the telecare user does not answer, an ambulance is dispatched. In the trial regions, fire and rescue teams are dispatched to visit the house.
		+ More dependence on pendants (alarm device) when older telecare users seek reassurance
	Choice and consumerism	+ Quote 1
		+ The telecare alarms and sensors that are not offered by Surrey Telecare can be purchased from other providers, and these devices can be linked to the Surrey Telecare home unit device.

	Privatisation / private sector market values	+ Surrey Telecare works together with Tunstall Healthcare, a private company that has a monopoly over telecare alarms and sensors. + Surrey Telecare teams can connect the telecare users' privately purchased interoperable devices to the home unit. + The 12-week trial was withdrawn after enough people took up services.
Legitimising Technologies and Institutions		
	Reassurance about future success with technologies	Quotes 20, 21
	Building confidence in localism and local actors	+ Quotes 7, 15, 17, 19, 25, 26 + Due to being in touch with installation teams, telecare managers and call operators are familiar with the types of alarms and sensors that are installed in homes and can identify the reasons why these devices might have been triggered
	Legitimising data collection via technologies	Quote 4
	Efficiency factors in telecare centres	Quotes 2, 3

	Emphasis on quality standards	+ The local reports produced at district or borough councils and the yearly report produced by Surrey County Council contain quality parameters. + Telecare Services Association's (TSA) national quality standards are followed through at the telecare monitoring centres.
	Legitimising technologies through scope, flexibility and ease of access	+ Table 4 under Appendix C shows the scope of telecare equipment offered under Surrey Telecare. + Quote 1 + Telecare users are given the freedom to purchase those alarms and sensors that are not offered by Surrey Telecare, on the condition that they should be interoperable with the main home unit device.
	Financial justifications	+ The fire and rescue service in the trial location has been compared to ambulatory services in terms of financial outcomes. + A free 12-week trial was offered to clients in the first two years of the initiative to attract more users. + Telecare brochures, telecare managers and operators state that the services are offered to telecare users for cheap prices.
Togetherness and Social Responsibilities		
	Working together with older people	+ The permanent telecare centre operators recognise most of the telecare users who have a high call rate. + The operators answer calls with a positive and uplifting voice. + In those cases when an ambulance is called out, the call with the telecare user is not halted; the operator stays on the line longer to comfort the person.

	Working together with other actors in the telecare network	+ The telecare centres give voice to the support groups of older people in terms of decisions taken about the person. + The neighbours of older people are one of the primary types of emergency contacts. + Fire and Rescue teams offer voluntary visiting services in trial locations to help telecare users with non-urgent and non-medical problems: Quote 25
	Emphasis on intergenerational links	+ Quote 21 + Some telecare managers and operators stated that their parents are using (or they would prefer in the future for them to use) telecare services, and that they will also use these services in the future.
Public Accounts of Technology Experiences		
	Evaluation of customer satisfaction	Quotes 10, 12
	Positive case studies	The guideline given on the template annual telecare monitoring form (Appendix C, final page) states *"Please attach to this monitoring form an anonymous case study during the reporting period detailing a service user and/or carer who has achieved a notable outcome with regards to your telecare service or supporting health agenda"*. This form has been prepared by Surrey's central authority, Surrey County Council, and distributed to borough and district councils to report their telecare data.
Care Management		
	Risk assessments	House assessments are conducted by telecare installation teams. They work together with the individuals to identify the telecare alarms and sensors that might be the most beneficial for them.

	Competition between telecare providers	Quote 11
	Financial evaluations of services	+ The data collected from monitoring centres is evaluated with performance and financial parameters. + The cost of ambulatory services has been brought to attention during the interviews. + Ambulatory services versus fire rescue units are compared in terms of finances.
	Prioritising needs	+ The needs of telecare users' support groups are prioritised in certain cases. + The house assessment takes note of those devices recommended to older people by medical professionals, by their carers, and by their relatives.
	Shift in professional roles	+ Supervisors are appointed from the operator team at the telecare monitoring centres to help with the duties of the manager and be responsible for a group of operators. + Quote 23: The traditional role of 'commissioning' is reflected in a flexible way with the use of the phrase 'gentlemen's agreement'.
	Reporting data to an authority	+ The data stored on the servers of telecare centres is collated at regular intervals to be analysed by business intelligence and financial teams of Surrey County Council. + Local district and borough council telecare teams offer Surrey County Council their performance and financial data. One such example is the Telecare Monitoring Form (Appendix C), which has been condensed to a smaller form over time to report select parameters that have been prioritised by the County Council. Quotes 22, 24 + Performance related data, such as the number of calls and the time period within which calls were answered, are submitted to the Telecare Services Association (TSA) – the national telecare services accreditation body.

	Professional roles as gatekeepers to telecare services	+ Adult Social Care assessment teams conduct financial assessments and financially support qualifying older people on a sliding scale.
		+ Commissioners make decisions in terms of the future of telecare services, such as extending certain services to certain areas or instigating trials in specific locations.
		+ Hospital discharge teams refer patients to Adult Social Care to benefit from the CAT Scheme. Figure 5.6
		+ Telecare assessment installation teams who help in the decision of what devices are required for the individual's home

Table 5.3 The list of themes – based on meso and micro level interviews, observations, and local document data.

5.3 Conclusion

At the end of the thematisation process in this chapter, six main themes have been identified (as specified in Table 5.3 in Section 5.2.3). These themes and trends present in the macro, meso and micro levels of data will be used in the next chapter to analyse the three research questions, which were:

> **RQ1:** Through which scientific classification practices do old age discourses surface in relation to telecare?

> **RQ2:** Through which institutional dividing practices do old age discourses surface in relation to telecare?

> **RQ3:** How do social care policies and practices of telecare service institutions enact and change the grand narratives and the identity of old age?

The six primary themes identified in this chapter can undoubtedly assist in answering the research questions, however regrouping these themes even further in terms of their relation to the questions can be very helpful. By doing this, it will create a clearer pathway for data analysis in the next chapter. Two overarching themes are observed within the data that have been divided into six main themes; they can be collected under: *1) Technologies, institutions and services*, and *2) Identity*. With the use of such a model, the processes of *dividing practices and scientific classifications* can be identified under the first theme; and how these processes reflect on *old age identities* can be identified under the second.

However, there is a third and final overarching theme – *3) Social Responsibilities* – which also emerged out of the data in a compelling way. This theme is linked to the first two themes and has the potential to lead to an interesting analysis. Figure 5.13 visually presents the relationships between the main themes and those overarching themes that have been generated based on the need for more clarification towards the research questions.
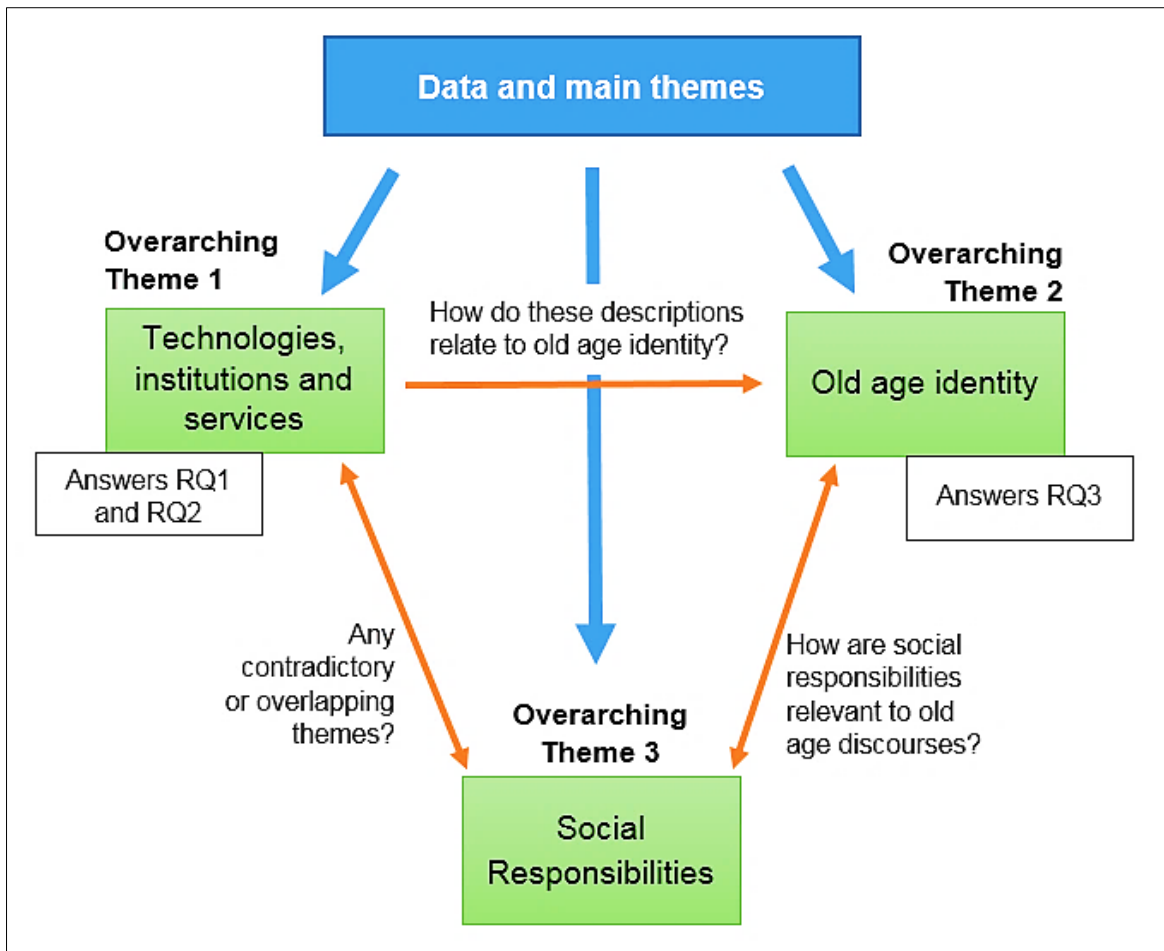
Figure 5.13 Dividing the aspects of primary themes into further overarching themes to assist in answering the research questions (Own illustration)

The descriptive aspects of the 6 main themes, as well as the identification of scientific classifications and dividing practices, mainly fall under the first overarching theme, *Technologies, Institutions and Services*. The main discussion of the discursive aspects of these themes fall under the second overarching theme, *Old Age Identity*. The third overarching theme, *Social Responsibilities*, draws from the main theme of the same name, but this particular theme does not directly aim to answer the research questions. It is significant only when connected to the classificatory practices and old age identity because of the distinct ways in which this theme has appeared in data. I will therefore be investigative of any overlapping or contradictory trends present in the relationship between the themes of *Technologies, Institutions and Services* and *Social Responsibilities*. In the next chapter, the three themes will be connected together in a meaningful and sequential manner.

To conclude this chapter, I can reflect on the process of *concretisation* that has been adopted for the thematisation of macro, meso and micro level data. Concretisation's primary aim has been to establish a sense of completeness to the data presented, and it has been achieved. This technique did not only cross-validate certain trends, but it also helped to capture different facets of the same phenomenon. These distinct facets of the case study consequently fed each other, and they have been used to produce a clear trajectory for the next chapter, Analysis and Discussion.

6 Analysis and Discussion

The initial research question of this thesis has been: "How is the identity of old age constituted in relation to telecare technologies?" Based on this question, specific research questions were identified in the Conceptual Framework chapter:

> **RQ1:** Through which scientific classification practices do old age discourses surface in relation to telecare?

> **RQ2:** Through which institutional dividing practices do old age discourses surface in relation to telecare?

> **RQ3:** How do the social care policies and practices of telecare service institutions enact and change the grand narratives and the identity of old age?

The Findings chapter created the premises upon which conclusions can be drawn in an attempt to answer these research questions. In this chapter, the overarching themes - as identified previously (please refer to Figure 5.13) - will be used as analytical categories. RQ1 and RQ2 will be answered through the use of the descriptive and analytical data aggregated under the theme: *Technologies, Institutions, and Services*. RQ3 will be investigated under the theme: *Old Age Identity*.

In the Findings chapter, the analysis and thematisation of data revealed that older people are identified as a distinct demographic group. This distinction is observable in the various policies and strategies that aimed to create changes or introduce new technologies for old age assistance or old age care. There are indications - as expressed in the macro, meso and micro levels of the case study - that old age is constructed as a distinct kind. In this chapter, the first aim is to elaborate on the techniques (modes) through which the dominant discourses of old age have surfaced. The second objective is to reflect upon the construction of this distinct identity and human kind (Hacking, 1995; 1999). This second task also includes the recognition of changes in the historical grand discourses of old age - as identified in Section 2.1 of the Literature Review - and in relation to the discourses of old age that have formed in the context of telecare information systems.

In this chapter, there will be four main sections, three of which are named after the overarching themes: 1) *Technologies, Institutions, and Services*, 2) *Social Responsibilities*, 3) *Old Age Identity,* and a fourth section that summarises the chapter. In the first *Technologies, Institutions, and Services* section, scientific classifications, dividing practices, and discourses relating to old age that were observed in the case study will be presented, with links to literature and the conceptual framework. In the same section, other structural processes and relations, which constitute a background for these discourses, will be investigated. In the second section, *Social Responsibilities*, I will draw parallels between intergenerational links, discourses of old age, and structural processes and relations - as identified in *Technologies, Institutions, and Services*. The Social Responsibility theme is significant because it highlights contradictions found in the dominant narratives of old age (including operant assumptions and valuation hierarchies) that serve as the premises upon which these policies and practices are founded. A critical investigation will be carried out to identify overlapping patterns and to direct our attention on to certain forms of rationalisation and normalisation.

The first two sections set the premises for the investigation of the third theme: *Old Age Identity*. Here, the third research question will be answered. To carry out this analysis of the enactments of and changes in the grand discourses of old age, it is key to refer to and create links between the sources of knowledge accumulated in previous sections. In the course of this analysis process, the ways in which concepts have been brought together has somewhat changed, and they have been put together in novel ways. In other words, links are made/highlighted and relationships are identified between concepts that were not presented as connected before. I will thus present the final theoretical framework that has been developed out of the initial framework (as previously identified in the Conceptual Framework and Research Design chapters). In this final section, the relationships identified between the constructs (as part of the Conceptual Framework, in Section 3.4.2) will guide the discussion. The objective is to reconceptualise aspects of the findings in a way that reflects how they represent these relationships. This will help us derive generative conclusions with regard to changes in old age discourses that constitute the redefinition of old age identity.

Overall, this chapter identifies the explanatory potential of the relationships identified between old age, telecare services, and institutions (government, and social services bodies)

that contribute to discourses of old age through policies and practices. These explanations are then summarised in the explanatory framework that is presented in the final section.

6.1 Technologies, Institutions, and Services

In this section, the scientific classifications and dividing practices will be identified by creating links between the case study data and Foucault's notion of modes of objectification. In addition to this, other characteristics of technologies, institutions and services will be discussed. Identified themes will reflect those techniques of normalisation and standardisation in relation to old age and technologies, specific modes of power/knowledge, and the governmentalization of the state. At the end, these accounts will be linked to aspects of the grand discourses of old age, which surface via policies and practices. The information gathered in this section and Section 6.2 will be used in Section 6.3 to reinforce the case for the redefinition of old age and answer the third research question.

The current section seeks answers to the questions RQ1 and RQ2, by using Foucault's two modes of objectification.

> **RQ1:** Through which scientific classification practices do old age discourses surface in relation to telecare?

> **RQ2:** Through which institutional dividing practices do old age discourses surface in relation to telecare?

The first mode of objectification, *scientific classifications*, pertains to the status of social sciences (Foucault, 1983). These practices offer ways to study, organise, define, and codify human attributes based on grand categories of *the normal* and *the pathological*. The second mode reflects *dividing practices* of separating, categorising, normalising and institutionalising populations that are put into action in order to maintain social stability, e.g. categorising people as 'the sick' versus 'the healthy' (Foucault, 1983). Classification and dividing practices coexist because, while scientific professions study and classify individuals, the governments and institutions discipline, divide, and regulate these groups. As given in the example of sexuality, human sciences classify 'problems' and experiences of sexualised objects; the systems of power stratify and institutionalise kinds of sexual objects (Foucault, 1980; 1984).

The section will be divided into the same analytical levels used in Findings – namely: 1) macro, and 2) meso and micro. This is because the modes of scientific classification and dividing practices have appeared distinctively at these levels. For example, the digital classification of older people is an emerging theme that has appeared in a novel way at the meso level. In addition to laying out the modes of objectification in each level, the most significant themes for each level will be investigated. The aim is to make sense of the data by connecting it with the literature and then linking it with old age discourses and identity. The most significant themes that manifested are as follows: *Modernisation* under the macro level, and *Care Management* under the meso and micro levels. The modes of objectification, old age discourses, and related structural processes that are identified in this section will later be connected to the grand discourses of old age under Section 6.3: *Old Age Identity*.

6.1.1 Macro level

In this section, the macro level findings will be used to elaborate on the scientific classification and dividing practices that are embedded in governmental policies and strategies. The modernisation of services has appeared as the most significant theme in the macro level, and an investigation into this theme will be conducted by combining it with elements from the literature.

6.1.1.1 Scientific classifications and dividing practices embedded in policies

In the Findings chapter, the categorisation of old age was given a central focus with relevant themes emerging out of data. The quantification of older people through the use of numerical and statistical data and illustrations has been dominant in policies that collectively reflect the knowledge of scientific fields such as economics, statistics, and medicine. Dividing practices have also been used in policies alongside scientific classifications. The use of statistical methods and judgements that divide the population in the era of bio-power shows the spread of normative rationality in calculating and monitoring the health of the population (Rabinow, 1984). Policies are "increasingly incorporated into a continuum of apparatuses (medical, administrative, and so on) whose functions are for the most part regulatory" (Foucault, 1978, p.144).

The quality adjusted life year (QALY), and its derivative, the quality of life (QoL), are health economics parameters. Health economics is a branch of economics dealing with issues of efficiency, effectiveness, and value in health care provision and consumption. The macro level governmental publications presented within the case study have traces of health economics terminology, especially with the use of *quality of life* as a standardised measure. Their consistent use of methods of analysis and measurement that derive from physical, biological, and psychological sciences constitutes a form of scientific classification. While the term 'quality of life' can apply to a range of things (each reflecting different perspectives), its application as something that can be measured through methods of quantification is an economics approach, which contains embedded hierarchies of value as to what constitutes 'quality' in the eyes of the measurer. Statistics, in particular, are form of data used heavily and frequently in these documents. For example, future projections (e.g., population growth forecasts) depend on official statistics, which originate from UK's largest independent producer of statistics, The Office for National Statistics. Moreover, as an example of deployed techniques that render qualitative information into quantifiable data, surveys have been identified as the most frequently used method of data collection from older people. In such cases of scientific classification, the use of statistical information and quantifying tools within the policies and local documentations also make visible the financial aspects of old age discourses.

Financial justifications and financial data are also used to support the case for telecare. This is another technique of scientific classification that sets up a dichotomy of 'cost effective' versus 'costly' forms of care and then views or problematises old age through these terms. However, this classification technique has only been sparsely used in policies, as evidenced in the case study. This could be linked to the fact that no compelling results were presented by the scientific studies regarding the large-scale telecare trial, Whole System Demonstrator (WSD), during the period when telecare became more visible. These studies conducted economic evaluations of the WSD's telecare service with the use of randomised control trials, and reflected that no significant outcomes were observed (Henderson et al., 2014; Steventon et al., 2013). The infrequent occurrence of cost-effectiveness of telecare as a measure in the case study reinforces the view that cost-effectiveness data are especially limited in the UK (Henderson et al., 2014).

However, in the absence of wider financial justifications about the use of telecare by older people, there has been a strong focus on highlighting the positive experiences that older

people have with telecare services. This technique of reporting on positive telecare experiences can be classified as a dividing practice of standardisation and normalisation. That is because this selective highlighting of positive cases and findings categorises *care with telecare* as the 'standard', 'normal', and favourable experience for the older population. Since the economic evaluations of telecare are only sparsely used due to their ambivalent results, the case of telecare has been supported on governmental documents with qualitative data such as answers given to questionnaires or public accounts collected through think tanks.

Case studies have been dominantly used in policy papers. They reflect an objective to build confidence in telecare technologies, through the use of narratives such as: self-management, independence, risk management (such as reducing the risk of being referred to intensive care), falls prevention, the prevention of delayed discharges, and the protection of the most vulnerable. The use of such narratives reflects another objectification practice that divides the older people a) from the rest of the population and b) from each other, as distinct sub-groups (e.g., identification as 'able-bodied' or 'disabled'; as 'independent' or 'dependent', and so on) within the 'older population' category. This practice creates institutionalised objects with particular attributes in relation to telecare.

Adverse experiences with telecare technologies have not been accounted for in policy and strategy documents. I noted this as an absent narrative in the Findings chapter. As identified in the Literature Review, there have been academic discussions in sociology and bioethics about the surveillance aspects of telecare technologies, as well as the compliance logics that are embedded in these technologies (Sorell and Draper, 2012; Guta et al., 2012; Schermer, 2009). It has been observed that no critique has been used in policy that may lead to negative or ambivalent meanings about telecare.

An absence of discussions has been spotted about topics such as: why traditional care still matters; how telecare could change certain aspects of society, such as monitoring and surveillance; and how to overcome the potentially coercive effects that telecare could create (e.g. an increase in family neglect/isolation for older relatives due to confidence in technologies). In addition to a marked absence of these themes, certain scientific approaches – such as the classifications of the sociology field – have been left at the margins of the dominant narratives upon which these policies were constructed. The dominant assertions were based predominantly on economic, statistical, and medical knowledge.

Although metaphors are uncommon in macro level policies, one specific metaphor found in the foreword of a governmental white paper creates a powerful narrative about attitudes towards ageing:

> In the depths of the Second World War, William Beveridge inspired this country to battle the five 'giant evils' of want, disease, ignorance, squalor and idleness. Today, a fear of old age is just as great a challenge. (HM Government, 2010, p.4)

Here, the fear of old age is problematised and is classified as a 'giant evil' that should be battled – as something undesired and to be wished away. In Katz's words, problematisations signify "the disciplinary practices that transform a realm of human existence into a crisis of thought" (1996, p.9). It has been observed from the case study data that dividing practices are typically supported by disciplinary and scientific classifications to normalise the separations.

For example, other powerful themes discovered in Section 5.1.3.2 (Findings) were visions of: 1) older people as a burden, 2) older versus working-age people, and 3) older people as a financially secure group. These three narratives have been deployed to support each other. The statistical categorisation of "those aged between 65 and 74 [as] the second wealthiest age group in Britain" (HM Government, 2010, p.128), with the use of data from the Office for National Statistics, indicates a scientific classification practice that uses the knowledge of a centralised statistics authority. With this classification, the aim is to support the two dividing practices that have been used in the same context; those that: 1) position older people against working-age people, and 2) divide them from society as a burden on the shoulders of younger people. By implication, referring to younger people as *working-age people* reduces older people to an unproductive/passive population. Hence the narrative of being a burden becomes inextricably linked with the *work* narrative.

To justify the financially secure position of older people, the same extract states that "by contrast, many younger people have significant debts from mortgages or student loans" (HM Government, 2010, p.128). This statement creates a theoretical division in population in terms of wealth accumulation. Furthermore, as a result of reductionism and homogenisation of the population, only two primary categories are put forward by policies: younger vs older people. Because the division is reductive, this distinction filters out the heterogeneous realities of social life. Firstly, the data by Office for National Statistics states that wealth is

highest amongst the age group 45-65, which surpasses the age group 65-74 (ONS, 2013). Since the governmental definitions of old age concerns those individuals 65 and over, the most financially secure age group in Britain (45-64) are, in principle, part of the 'younger' population, thereby also under the 'burden' of supporting the older generations. This creates a contradiction with the financially insecure image of younger people, through which an element of 'unfairness' between generations has been introduced into the policies.

Secondly, on the back of the *care caps* and *means tests* (as introduced in the Findings chapter), the conditions of how older people are supported can be unpredictable. Echoing Loopstra et al.'s study (2016), the cuts in welfare spending and changes in care caps and means tests can lead to precarious conditions for older people. This implies that the wealth of the 65+ age group is in a precarious position in relation to changing laws. One example is the decreasing number of people who are receiving publicly funded social care from 2010 onwards (King's Fund and Nuffield Trust, 2016; Fernandez et al., 2013); this is not a result of people having higher wealth accumulation, but due to people being deemed as ineligible to receive funds under the changing rules.

Thirdly, statements that explicitly or implicitly separate the younger and older population and categorise older people as a burden contradict other narratives, e.g., those that convey a youthful image of older people and blur the boundaries of age differences. This can be seen in quotes such as: "'Older people' are no different to 'younger people' in wanting choice over where and how they live their lives (…)" (Department of Health and DETR, 2001b, p.4). The 'old age as a burden' discourse is also in contradiction with the narratives of morality and social responsibilities between generations, which emerge out of the same macro level policies and strategies. The social responsibility discourse is analysed in Section 6.2 in order to identify whether there are any overlapping logics in addition to the apparent contradictions on the surface.

6.1.1.2 Modernisation of services

The modernisation and reformation of social care services has been a dominant theme in the majority of macro level documentation found. This reflects a cluster of structural processes and relations in social care that relate to old age and telecare. As part of the descriptions of

modernisation in policies, certain narratives have emerged, which include themes such as: promoting independence, person-centricity, choice, and control.

The modernisation of services narrative found in macro level documentation echoes the logics of privatisation. It has been explicitly stated in policies that governments have been working closely with other sectors, including the voluntary and private sector. A governmental foreword reflects that "There is much activity outside Government that is seeking appropriate solutions, and we want to harness and co-ordinate this work with our own. We can achieve far more for older people through a partnership approach than we could alone" (Department of Health and DETR, 2001b, p.4). As discussed in the history of health and social care services in England presented in Section 5.1, there is a link between efforts to modernise (in particular, to finance modernisation) in recent decades and an increasing entanglement with private finance initiatives (PFIs) etc. I will now elaborate on how the attempts to define modernisation in those policies regarding old age and telecare highlight the shift towards a specific form of government, which has been defined by Estes and Linkins (1997) as the 'hollow state'.

As identified in the Literature Review, 'hollow state' refers to the separation between the central government and the services that the government funds. In this model, the central government contracts out the provision of services to other bodies and keeps for itself the monitoring and inspection responsibilities. The policies in the case study of this thesis reflect a certain form of hollow state formation because the social care responsibilities are being shifted towards the local level authorities, namely the councils. The service provision and the separation of budgets for each council's social care services have become the responsibilities of the councils. As indicated in the Findings chapter, commissioning happens at local levels. National policies guide some aspects of service provision; however, the local authorities, which act as localised forms of government, can enact the policies in a variety of ways, including forming partnerships with different private bodies or voluntary sector organisations.

An example of an external body that works alongside the councils' telecare teams is the Telecare Services Association (TSA) – the only telecare accreditation body in England. This not-for-profit community interest company is responsible for establishing quality standards for telecare services in England, and they have been gaining more momentum after having been publicly endorsed by the government. TSA has substantial sway and no viable

competitors in their role, and this indicates a monopoly that corresponds to the notion of the hollow state. These findings align with the post-Thatcher era changes advocated in the UK by successive governments that shifted long term care for older people from the NHS onto the local authorities (Scott-Samuel et al., 2014). This shows that localism has been given a special emphasis in policy data; one of the key presuppositions of hollow state is the reliance of the state on local bodies.

It has been observed that the subject of technological care is presented under the theme of modernisation in the policies, thus implicitly associating the elements of independence, person-centricity, choice, and control with the technologies. Klecun reflects on the process of how the major governmental modernisation programme in the UK "was legitimized through the appeal to the importance and centrality of the citizen/customer" (2016, p.65). The macro level findings also align with her observation about the ICT discourse being intertwined with the discourse of patient-centred care/person-centricity, which at first appeared implicitly in earlier publications, and then explicitly in later publications (Klecun, 2016). This has been the case with the publications from 2010 onwards, in which such language around ICTs has been more overt, signifying a more dominant narrative of technologies in social care.

Independence is a common recurring topic that has been taken up in all policies relating to technologies. The quote that refers to the government's definition of independence in the most explicit way is: "Our society, quite rightly, values the independence that we all try to develop as adults: our own income, our own family and our own choices for leisure, meals and lifestyle" (Department of Health, 2005c, p.6). Resourcefulness through own income, own family, and own choices for services and lifestyles thus become the elements upon which the independence is constructed. By implication, dependency refers to those situations where the older individuals use other resources for their care than their own income; rely largely on state's social care services rather than on their own family; and are not on the lookout for the most prudent services and lifestyles. The policies also state that "people will be helped in their goal to remain healthy and independent" (Department of Health, 2006, p.4), where the use of the phrase 'their goal' infers a method to create implicit compliance, through which the above definition of independence is normalised and standardised in the population.

The government pronounces their commitment to "modernise all [their] public services so they are centred on the needs and wishes of the individual" (Department of Health, 2005c, p.3); person-centricity and personalisation are the themes reflected here. As studied by Wakefield and Fleming (2009), the narrative of personalisation has been widening in the late modernity to include such catchwords as *personal choice* and *control*. The aim is to empower individuals and render them responsible for certain tasks, which have been previously recognised as a responsibility of other bodies or have not been recognised as a responsibility at all. This type of 'responsibilization' (Wakefield and Fleming, 2009; Lim, 2012) is heavily implied in the case study's policies because the subsequent governments have transferred responsibilities to individuals and families, who are then expected to take an active role in resolving their own problems.

To illustrate: choosing from the range of adult social care services offered in an individual's local authority, as well as applying for the assessment process to pay for these services, are the responsibilities of the individual. Social care services have not been free at the point of delivery in England. As explicated in the Findings, local authority support is means-tested, and the individuals who receive funding are expected to contribute towards the cost of their care (Jarrett, 2017). Since older people are the primary users of the social care services[46], their responsibility over their own care reflects that the responsibilization process of the social care in England primarily targets the older population. The aforementioned phrase 'their goal' (Department of Health, 2006, p.4) also reflects an instance of responsibilization. This echoes Phillipson's statement about how the understanding of ageing is associated with "how individuals rather than societies handle the demands associated with social ageing" (Phillipson, 1998, p. 119).

I have previously stated that, with the hollow state model, the government contracts out the provision of services to other bodies but keeps the monitoring responsibilities. Parallels can be drawn between these theorisations of the hollow state and responsibilization. The definition of hollow state entails that the duties of government are outsourced to other institutions, and responsibilization describes self-responsibility (a person's responsibility over their own care). It can be concluded that responsibilization is intricately linked with the logic of the hollow state, because, by implication, the care duties of the welfare state are

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[46] In 2015-16, there were over 1.8 million requests for social care services in England from new clients. 72 per cent of these were reported to be from clients aged 65 and over (Adult Social Care Team - NHS Digital, 2016).

contracted out from the central government to the local councils and on to the individuals themselves.

6.1.2 Meso and micro levels

In this section, the two modes of objectification – scientific classifications and dividing practices – will be investigated in meso and micro level findings. The most significant themes that will be investigated in light of the literature are: the management of care through specific means, and the digital classification of older people.

6.1.2.1 Scientific classifications and dividing practices embedded in social service institutions

The scientific classifications and dividing practices at meso and micro levels demonstrate distinct or more refined versions of the macro level modes of objectification. The knowledge of the scientific fields that has been effective in the construction of macro level policies is embedded in the meso and micro level practices too. The quantification of older people with statistical data and visual representations shows again a dominance of the field of health economics whose logics have been employed in local level documentation. The financial justifications present in data - such as ambulance dispatch costs and the cost savings achieved with the use of fire and rescue units - also reflect a dominant economics lens. It is therefore the case that scientific classifications are also reflected on the status of financial calculations (Powell and Biggs, 2000).

Various attributes of old people have been embedded into the databases, into practices, and into the local documentation. The normalisation of older people as individuals who are error-prone is one of the most significant institutional dividing practices that has been observed in fieldwork data. It has been stated various times that the most common type of alarms are false alarms and that telecare users press their devices' buttons by accident most times. Also, by implication, various statements lead to the conclusion that the micro level practices contribute to the grouping of telecare users (primarily older people) as forgetful and frail.

Moreover, the data suggests that older people's decisions as to when to contact the support groups (mainly their families) are overridden by telecare managers and operators. When there is a belief that notifying families would be better for the care of the older person or when potential conflicts can be avoided between telecare centres and the support groups, the decision to inform the support groups becomes prioritised by the telecare teams. This, by implication, signifies that older people's arguments could be classified as unconvincing, or not always beneficial for their own wellbeing.

The digital classifications present in the databases of telecare monitoring centres consist of several features that provide an insight about specific meso and micro level classifications. The information collected on forms about telecare users prior to the installation provides the premises for the creation of specific variables on the software. The nature of the connection between the telecare centres and individual homes indicates an interesting occurrence that is taking place at the point of interaction. The system detects which telecare device the call is initiated from and then searches for the telecare user on the database. The user's profile is attached to the serial numbers of all alarms and sensors found in their home, and therefore the system recognises them through the initiation point of contact. New devices might be added onto or taken away from the telecare configuration at homes. This implies that the digital pathways on the database, which lead to older people's profiles, change constantly in the context of telecare. This is because the wellbeing needs of older people, and thus the configuration of technologies, are never fixed.

As Mol argues, caring is "tinkering with bodies, technologies, knowledge and with people" (Mol, 2008, p.12). For the case of telecare, constant interaction with people, and tinkering with technologies have been evident. The choice of telecare is not solely a matter of an individual's (i.e., the service user's) choice. From GPs to hospital discharge teams, from house risk assessment teams to the support groups (mainly families) of older individuals, the use of telecare is in constant negotiation. The evaluation of older people by GPs, other medical professionals, and hospital discharge teams; the risk assessments of the telecare teams; and the informal assessments and concerns of families, collectively construct an evaluative mechanism that is applied on the old age subject. This process divides the daily wellbeing needs of older people as distinct requirements that are classified to be met primarily by telecare solutions.

It can be concluded that the meso and micro level practices embed managerial and financial knowledge, and reflect localised and more refined versions of the macro level findings. In the next section, the aspect of managerialism in care will be given priority in order to position old age and telecare in the context of social service institutions.

6.1.2.2 Care management

The arrival of managerialism in the UK social welfare system in the 1990s marked a shift in social welfare in which "central control has been replaced by local power; management systems are inspired by consumer and market models; there is a reliance on risk assessment; and an increase in the discourses of a 'politics of participation' and 'social inclusion'" (Powell and Biggs, 2000, p.4). In the Findings, various instances of care managerialism and professionalism have been observed at the meso and micro levels.

Managerialism primarily relies on risk assessments – techniques that describe, judge and compare with others – and this is evident within the meso and micro level data. In the case of telecare, findings show that risk assessments are not only done in the presence of risk assessment teams, but also in combination with the referrals from other professionals, such as: GPs, carers, occupational therapists, hospital discharge teams, etc. The risk assessments that take place in homes before the installation of telecare devices investigate and classify the conditions of people, and match these 'cases' with appropriate solutions. When individuals are taken as cases in this way, they are "described, judged, measured, compared with others" so that they can "be trained or corrected, classified, normalised, excluded" (Foucault, 1977, p.191).

As Powell and Biggs state "central control has been replaced by local power; management systems are inspired by consumer and market models; there is a reliance on risk assessment" (2000, p.4). Foucault argues that 'assessment', as a disciplinary technique, aims to describe, judge, measure and compare older people with the use of norms and by "imposing new delimitations on them" (Foucault, 1977, p.184). An assessment can be considered to be a central technique that makes an individual into an object of power/knowledge (Foucault, 1977). It can thus be argued that, through these assessments, ageing bodies are constituted in relation to normalised standards of risks, and older people are rendered into objects of

economic and social narratives that address 'financial resources' and required levels of 'supervision' (Powell and Biggs, 2000).

The emphasis on localism can also be observed in meso and micro level data as much as the macro level. The neoliberal state creates a space in which social regulations depend on bottom-up structures (Biggs and Powell, 2001). The bottom-up structures transfer performance and finance-related data up the levels. At the same time, the macro level arguments imposed by the central government move down the layers down to the most local level where telecare implementations happen. The consolidation of managerialism in the management of old age creates changes in the welfare apparatuses (Warnes, 1996), as also evidenced in data. As Becks (1992) states, reflexive modernity / postmodernity separates individuals from collective structures. The dissolution of boundaries of the welfare state's collective structures in the neoliberal era can shift the focus from certain elements in life onto flexibilities and choices. This aligns with the reflection that neoliberalism's main function is to self-govern (Rose, 1999; Fukuyama, 1996).

The use of consumerist language in telecare services is a common occurrence at meso and micro levels. Service users are primarily referred to as 'clients' in spoken language at the micro level. They are the clients of the telecare monitoring centre where their calls are connected, and also the clients of the Surrey Telecare partnership in general, whose main authority is the County Council. When individuals who have specific needs cannot be supplied with the right telecare sensor or alarms by the local telecare teams, they are encouraged to purchase their own devices from the private market, which are then connected to the telecare centre.

The marketisation of telecare is legitimised through the narratives of choice, independence and empowerment. As Estes and Linkins (1997) argue, such narratives are capable of shifting the focus from collective concerns to politically neutral and individual questions of satisfaction. The telecare satisfaction surveys that are conducted at the micro level measure individual user satisfaction rates of services and of the technologies; this primary parameter reflects the success of services, both to the commissioners and to the accreditation body, TSA. Coincidentally, TSA's quality standards framework reinforces the narrative around individual measures of satisfaction and supports the current care managerial model at the telecare service centres.

The second primary parameter in evaluations is financial information. It has been observed in meso level data that the financial evaluations of regional trials are given high priority. For example, the narrative of 'high ambulance dispatch costs' has been normalised at meso and micro levels, and thus the status of trials, such as visiting response services (by fire and rescue units), is legitimised more readily. Financial evaluations are taken into consideration at the county council level, who are the mediators between macro policies and local implementations. Since the governmental budget cuts affect the funds that are allocated to the councils by the government, the emphasis on financial evaluations can be made sense of in the light of the austerity measures of the state. As Hastings et al. (2015) state, due to resource constraints, the public or third sector organisations have frequently had to fill in gaps in council services, despite their own funding reductions. This aligns with the emphasis on legitimising fire and rescue services as a new type of telecare team, who are trialled to address the concerns about healthcare resources in hospitals, such as ambulatory services.

The narrative that presents a telecare centre as a 'provider' and a service user as a 'client' can lead to the same effects of marketisation as seen in the private sector. It has been observed that the telecare centres that are parts of the same telecare partnership might be in a competitive 'rival' position in relation to each other. This is, for the most part, because of the limited budgetary funding by the county council; the telecare centres of different boroughs try to access a larger share of the budget. On the one hand, there is a potential upside to this competition in that it can promote these 'rival' centres to meet higher standards and better offers for older people. However, the potential downside is that it can promote them to look for more 'cost-effective' options, which might be preferred by the councils due to the austerity measures.

In addition to this, the private company that supplies telecare technologies to Surrey Telecare has a monopoly over telecare alarms and sensors in England. This implies that specific designs and functionalities are being normalised and institutionalised. We can reflect that Surrey Telecare partnership has been influenced by the ideals of marketisation; and the financial and performance evaluations by a central authority legitimise this system even further. The data also reveals that more layers of supervision and management have been created in telecare control environments, which reflect the effects of an expanding management model in care services.

Introducing telecare technologies changes the ways or creates new arenas for how the service users interact with different stakeholders in relation to telecare. This could include novel ways of interacting with those actors who were already present in the network of the older person. For example, the older version of telecare services – community alarms – required a direct interaction when the service user used a pendant. However, with the use of distinct telecare configurations at home, telecare centres are capable of monitoring risky cases in older people's lives without the need of a person's direct interaction with their pendant.

The alarms and sensors present at individuals' homes are the products of the aforementioned risk assessments conducted by the professional telecare teams. Through the assessment and the implementation of technologies, more links are created between homes and telecare centres, enabling more interactions between actors and more data collection on the databases. This implies that a greater level of monitoring takes place over service users, and that a higher dependency on telecare service institutions and on telecare practitioners is generated. The sort of reliance mentioned here demonstrates that the narrative of independence via telecare is not self-referential; it reflects specific governmental and professional values and is therefore limited.

Care management also creates layers of professional roles that act as gatekeepers to telecare services. To illustrate, the risk assessment teams conduct house assessments to reveal which technologies might be useful for the individual; adult social care assessment teams conduct financial assessments to support eligible older people's telecare costs; hospital discharge teams gatekeep the CAT (Community Alarm Telecare Discharge Project) scheme, and older people can reach a free trial of telecare services only through the discharge teams; commissioners and the central adult social care team can instigate or halt trials as part of the telecare partnership. One example of these trials is the 12-week free telecare scheme for any new applicant; this service has been withdrawn because it "has served its purpose of raising awareness of telecare and increasing take up of the service" (Appendix B). This language has some parallels with the private sector's market trial strategies, and reflects a mixed economy of welfare, which highlights the incorporation of market forces in the planning and provision of public services (Biggs and Powell, 2001; Estes and Linkins, 1997).

6.1.3 Conclusion

In this section, the scientific classifications and dividing practices that were dominantly present in data have been identified and linked to several discourses of old age. These modes of objectification of older people surface in the context of telecare. They will be linked with the grand discourses of old age and with the old age identity in Section 6.3.

In addition to the modes of objectification, other dominant narratives present in data have also been highlighted. The processes presented under *modernisation of services* and *care management* also contribute to the construction of discourses about old age. It has been revealed that the distinct categorisations of old age analysed in this section might have been born out of the need to serve particular functions, such as to describe a population or to target resources efficiently and effectively; nevertheless, the same categories can still lead to the positioning of older people in various less favourable ways.

In the next section, links will be constructed between the discourses of this section and the narrative of social responsibilities. Then, the third research question about the old age identity will be investigated in Section 6.3 by bringing the previous analyses together.

6.2 Social Responsibilities

The theme of social responsibilities and intergenerational links appeared in data in an interesting way. Even though the logics of modernisation and of care management are rationalised in alignment with the shifts in the era of a neoliberal (post)welfare state, the narrative of social responsibilities seems to have appeared in contradiction with other powerful narratives.

The white paper published after the 2009 Big Care Debate public consultation states that people from the public who joined the Big Care Debate told the government "that everyone in society shares the responsibility for making sure that people receive the care they need" (HM Government, 2009, p.4). The paper also recognises the fact that older people "are forced to run down their savings or sell their homes to fund their care" (HM Government, 2010, p.3), and it calls for changes in how the welfare state functions. These statements deem

social care as a collective duty, and they reflect upon it as a reinforcing element of the 'intergenerational contract'.

However, indications of ambivalent attitudes have also been noted in discussions about social responsibilities in policies. For example, in the same government publications, the unfairness between generations has been highlighted in this reference to the tax-funded system: "The majority of people to benefit from a fully tax-funded system would be older people, and yet it is working-age adults who would face the largest burden in paying for it" (HM Government, 2010, p.128). This echoes Phillipson's (1998) argument about how an increasing number of workers are disinclined to pay tax increases to support benefits for older people, and by doing so they were breaking the 'intergenerational contract'. This reflects late modernity's separation of individuals from collective structures (Becks, 1992), through which individualisation sets agency free from the social structures of simple modernity (Lash, 1994).

It has been observed in data that the narrative of unfairness between generations is outweighed by manifold other accounts regarding familial and societal care, as well as the ethical responsibilities of the population. The foreword analysis of the themes in Findings has revealed that governmental publications use phrases such as 'caring responsibilities', 'debt of dignity owed to wartime generation', and 'caring for older people as the hallmark of civilised society'. The publications explicitly state that the nation depends upon the emotions and care that people give to the others they know (Department of Health, 2005c), but that the support of family and friends must not be taken for granted (Department of Health, 2005c).

This thesis approaches these instances critically and looks at the conditions upon which this intergenerational link is being maintained. The phrase "enormous sacrifices of the wartime generation[47]" (HM Government, 2010, p.2) echoes the previous discussion about productivity, as indicated with the dividing practice of working age versus older people. With this, the individuals under the pension age are homogenised as the productive and active population which comprises tax payers. With the "enormous sacrifices of the wartime generation", it is implied that then working age people were active and productive, and now

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[47] "The enormous sacrifices of the wartime generation demanded that there had to be an ambitious programme for quality healthcare, alongside economic reconstruction. Now that same generation is owed a further debt of dignity: to receive care and to stay in their homes as long as possible" (HM Government, 2010, p.2), as presented in Findings, Section 5.1.3.

they make up the 'deserving old'. This aligns with Phillipson's argument about "harsh or softer versions of dependency" (Phillipson, 1998), such as the concept of older people as a problem population, or as deserving of a reward for their past contributions to society. A softer version of dependency is constructed here with the narrative of sacrifices of older generation and a debt of dignity owed to them by later generations.

Another dependency is created through statements indicating that older people should be supported to stay in their homes as long as possible, and that familial care should not be taken for granted. Since the objective of policies (as presented in Findings) is to announce the new strategies in social care services like telecare, these narratives of staying in the home and the decreasing levels of familial support feed those grounds upon which telecare is legitimised. Even though a number of macro documentations recognise telecare as a complementary form of care, as opposed to something that replaces or substitutes human contact, the discussion about what types of care that telecare is complementing has been lacking in depth.

As discussed in Section 6.1.1, I identified how several compelling themes and narratives that have been emphasised in policies are in accordance with the notion of an emerging hollow state (Estes and Linkins, 1997). These are: 1) The late modernity's key component of social change, which is individualisation (Becks, 1992); 2) the logics of consumerism and privatisation in social care; and 3) the responsibilization of life that denotes self-responsibility over choices and lifestyles (Wakefield and Fleming, 2009). It has also been stated that the understanding of ageing is becoming more associated with "how individuals rather than societies handle the demands associated with social ageing" (Phillipson, 1998, p. 119). These themes appear to be in contradiction with the narrative around the intergenerational contract and the relationships based on morality between the generations. The assumption here is that the technologies and institutions are legitimised and normalised in rational ways, and that the theme of togetherness and morality presents itself as a traditional narrative in various spaces of this rationality.

This thesis asserts that the narrative of social responsibility reflects a traditional discourse that is ambivalent and shifting in its position. We can turn our attention to the wider political and social context because "behind the policy documents stands socially constructed reality (or realities)" (Klecun-Dabrowska and Cornford, 2000, p.56), including the reality of neoliberal modernisation and care management values. When we put social responsibilities

against the narrative of individualisation and individual responsibilities - which occurred heavily in the analysis of modernisation and care management - the social responsibility discourse is shown to hold conflicting meanings.

As Foucault argues, discontinuities in discourses happen when things are no longer perceived, classified, and known in the same way as before (Foucault, 1994). The presence of ambiguities and ambivalent positions within policy texts indicate that the narrative of social responsibility and of the intergenerational contract might be gradually dissolving, although it is evidently not a discontinuous discourse. The continuity of the social responsibility discourse still manifests itself in policies. It carries the traces of the moral framework that had been constructed in the post-war welfare state period. Foucault reflects that some of the discourse would be continuous over time, until society establishes the new form of truth based on the steady accumulation of knowledge (Foucault, 1994). Until that time, the discourse of social responsibility and intergenerational morality will constitute an implicit vehicle through which the conflicting logics and processes of social care modernisation will be carried forward by appealing to the traditional community values.

6.3 Old Age Identity

In this section, the objective is to explain how the discourses of old age reflect on old age identity in relation to telecare. The enactments and possible expansions of grand discourses of old age will also be examined here in connection with discussions of the previous sections.

To briefly go over the definition of identity: Foucault (1982) argues that subjectification forms a process that categorises the individual, and that the individual becomes a carrier of meaning (Dagg and Haugaard, 2016). The individuality of the person is marked with this meaning, giving them a particular identity – a particular way of being. The assumption in this thesis has been that the public policies and institutional practices reveal explicit and implicit ways of positioning older people that bestow on them particular old age identities.

As explained earlier in the Conceptual Framework chapter, the construct of old age identity in this thesis refers to an *abstraction / representation* of the old age identity, which is constructed through the medium of telecare policies and practices. This identity involves those power/knowledge formations that impose a form of control structure upon old age

subjects. To construct an old age identity in this section, it is necessary to: 1) refer to those macro, meso and micro level discourses, as well as the effects of certain structural processes and relations (modernisation and care management), which contribute to the particular social positioning of older people; 2) reveal those enactments of and alterations (if any) to the grand discourses of old age on the back of the discourses and processes identified; and 3) bring this information together to draw a summative conclusion.

Table 6.1 presents in two separate columns the discourses and the structural processes and relations pertaining to old age in macro, meso and micro levels. All discourses and processes in the table have been taken from the analysis discussed in previous sections, of which some have surfaced with the aforementioned scientific classification and dividing practices.

#	Manifestations of old age discourses in policies and service institutions	#	Manifestations of social care and old age related structural processes and relations
1	Fear of old age as an 'evil' to battle	15	Old age as an economic variable
2	Old age as a burden	16	Consumerism in old age
3	Old age as the unproductive population	17	Hollow state
4	Older people as a financially secure group	18	Responsibilization and individualisation
5	Old age dependency as the source of unfairness between generations	19	Dependency on telecare institutions and professionals
6	Old age as risk	20	Empowerment through personal choices
7	Being independent with own resources	21	Risk assessments
8	Older people as youthful	22	Digitised attributes of old age
9	Error-proneness in old age	23	Marketisation of services and rivalry
10	Forgetfulness in old age	24	Measures of individual satisfaction
11	Frailty in old age	25	Staying at home as long as possible
12	The deserving old	26	Localism
13	The heroic old		
14	Intergenerational debt		

Table 6.1 The discourses and processes relating to old age, which are the outcomes of the analysis in macro, meso and micro levels

It is revealed that there are various discourses of old age present in the context of telecare that are mediated through policies and social service institution practices. The majority of these discourses can be positioned under the grand discourses of old age (as introduced in Literature Review) because they can be deemed as sub-discourses within the grand discourse itself. To mark these similarities, I will build up on Figure 2.1 from the Literature Review and position these discourses along with the grand discourses. The processes identified in Table 6.1 will also be divided in such a way that they can reflect enactments of the grand discourses. To echo Foucault's statement: "there is nothing to be gained from describing this autonomous layer of discourses unless one can relate it to other layers, practices, institutions, social relations, political relations, and so on. It is that relationship which has always intrigued me" (Foucault, 1967, p.284 in O'Farrell, 2005). This calls for the recognition of other objects beyond discourse, although their relationship with the discourse is primary. In short, the components of Table 6.1 will be utilised to demonstrate those enactments of the grand discourses. Figure 6.1 below displays the smaller discourses, and the processes and relations that fit under the grand discourses of old age. Each element has been represented with their respective number from Table 6.1.

Grand Discourses of Old Age	Discourses, processes and relations (#)
Medicalisation of old age: - Ageing as a pathological problem - Decline, abnormality, deterioration, dependency - A drain on healthcare services	1, 2, 3, 9, 10, 11, 15
Older people as a new group of consumers: - Responsibility over own lifestyle - Active ageing - 'Gold in grey' / 'grey market' - Choice over services	4, 7, 8, 16, 18, 20, 24, 25
Association between old age and social welfare: - Professionalization and managerialism in social work - Risk assessment of old age - Old age as dependent and as a financial burden - Marketised care / 'hollow state' - Displacing the burden on existing state-run system onto individuals	2, 3, 6, 15, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26

Figure 6.1 Classifying discourses, processes, and relations under the grand discourses of old age

There are overlapping discourses, processes and relations that have been classified under more than one grand discourse. One example of this occurrence is the placement of the discourse, 'old age as a burden', under both 'the medicalisation of old age', and 'old age's relationship with social welfare'. The definition of 'grand discourse' from the Conceptual Framework chapter clarifies that a grand discourse is: an overarching narrative that comprises multiple and distinct perspectives and is usually continuous over a specific time frame. Since multiple and distinct perspectives are captured within an overarching narrative, it has been possible for the discourses and processes identified in this chapter to be representative of more than one grand discourse. Figure 6.2 presents these classifications with the use of sets in order to clarify the overlapping elements of grand discourses and identify those discourses which exist outside the group of grand discourses.
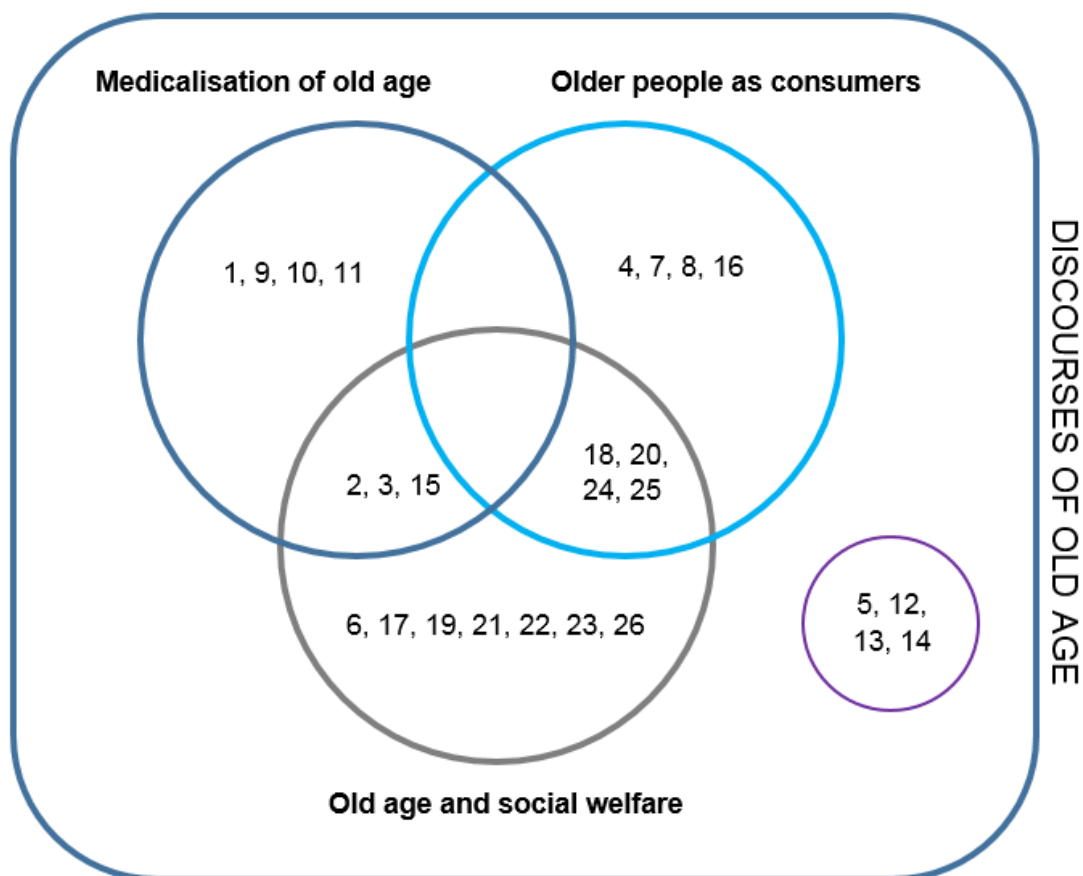
Figure 6.2 Visualising the classifications given in Figure 6.1 to reflect those overlapping discourses, processes and relations between the grand discourses of old age

6.3.1 Expanding grand discourses and other discourses of old age

Two sets of discourses and processes stand out in the allocation of the above manifestations under the grand discourses. These relate to old age discourses and old age identity in novel ways. The first set presents itself under the grand discourse of old age's relationship with social welfare. It is comprised of: 'Dependency on telecare institutions and professionals' (#19) and 'Digitised attributes of old age' (#22). The second set exists outside the three grand discourses and is comprised of: 'Old age dependency as the source of unfairness between generations' (#5), 'the deserving old' (#12), 'the heroic old' (#13) and 'intergenerational debt' (#14). These four discourses reflect the theme of Social Responsibilities. I will now elaborate on these sets further.

Dependency and technology relations

The relations 'Dependency on telecare institutions and professionals' and 'Digitised attributes of old age' fit under the discourse of social welfare, since this grand discourse encompasses the elements of professionalization, managerialism, and the hollow state. However, these two processes and relations stand out because of the novel form that they appear in compared to the historically continuous formation of the grand discourse. Even though these two elements enact those narratives of social welfare's relation with old age, they also expand this relationship and add to it a sociotechnical narrative. This means that the interactions between people and technologies are recognised; and technologies are addressed as enablers/mediators and as not value-free. These discourses form an addition to the original grand discourse of 'the relationship between old age and social welfare' that has been identified by Biggs and Powell (2001).

The production and storage of knowledge about older people on technologies affects the identity of old age. Through technologies, data about older people is stored in a structured and manageable form, which is ready to be aggregated and de-aggregated based on specific managerial needs and actions. The embeddedness of specific rationales in the technologies makes it possible for the information to be shared with other professionals - not only those actors who are directly linked with the individuals at the micro level, such as their support groups, carers, visiting services, etc., but also those professionals who conduct analyses at the meso level and homogenise older people in various representations of data.

'Dependency on telecare institutions and professionals' also reflects a new way of connecting old age with social welfare. As discussed previously, a higher dependency on telecare service institutions and on telecare practitioners is generated when the monitoring through telecare is expanded upon and new technological devices are introduced into the configuration of telecare. This seems to be in conflict with the narrative of independence via telecare, which has been a dominant discourse in nearly all policy papers presented in the Findings. This thesis asserts that the view of independence via telecare reflects specific governmental and managerial values; the view is therefore limited because it is not self-referential, i.e. it does not provide insights about the intensifying relationship between older people and professionals, as well as increased mediation through telecare technologies. Schermer states that the ideal of independence in policies usually means "decreasing the dependence on the physical presence of a healthcare professional" (2009, p.689); however

the ways through which empowerment or self-management can lead to positive impacts for older people usually fail at being addressed. Self-management is often seen as a means to decrease costs, and is seen in instrumental terms.

In terms of dependencies, Guta et al.'s study (2012) also sheds light on concerns for potential future forms of telecare. The internalised surveillance through fear can become a reality in the future because adherence to treatment might be imposed by the services by reporting on those who "fail" to adhere to the government-imposed treatments (Guta et al., 2012). Reflecting on Sorell and Draper's study (2012), surveillance through care technologies will exist, regardless of whether this surveillance is chosen or imposed. It is also important to note that the freedom to choose (which is presented as an overlapping narrative under two grand discourses in Figure 6.2) is a technique of governmentality that makes actors accept responsibilities in the form of their own rational choices (Guta et al., 2012). The core assumption of all neoliberal analysis is the embodiment of 'rational choice' (Foucault, 2008). Telecare technologies exist in a neoliberal (post) welfare era, and the embodiment of rationality manifests itself through narratives around technologies. This can lead to viewing telecare technologies ambivalently, because the techniques of surveillance could be maintained through the technologies in the future (Guta et al., 2012).

Here it can be emphasised that the element of dependency (on institutions, professionals, and technologies) comprises a component of surveillance embedded within it. Intensifying relationships between older people and professionals ensue in the increasing pervasiveness of telecare, as well as in the increasing scope of technological configurations present at homes. Thus policies and social care institutions support the ideal of a form of 'independence' whose definition is limited by governmental values. I can conclude that this narrative of independence overshadows those processes and relations that are gradually leading to more dependencies and increasing surveillance. Even though 'Dependency on telecare institutions and professionals' and 'Digitised attributes of old age' do not construct the old age identity in distinct ways, they contribute to the expansion of the social welfare grand discourse by adding new layers to it in relation to care technologies. These two processes/relations are intricately linked to the narratives of personal choice and independence that confer on older people an empowered identity.

It is observed that care managerialism has been challenging dependency by appropriating the narrative of choice and empowerment in welfare discourses, and by instigating an

increase of relationships in the care network between professionals and older people. This thesis asserts that care managerialism and modernisation in relation to telecare reflect only a limited version of choice, independence, and empowerment. Through processes of normalisation and standardisation, the enacted policies impose a particular form of 'choice' and 'independence' – one that is defined by the government and (as discussed) is laden with embedded value hierarchies from medical and economic lenses. It is worth deconstructing and investigating from *whom* or *what* exactly is the old person becoming independent (e.g. from their family's care and support, which the technologies are supposedly not meant to replace?), and from which range of options do they 'choose'? (e.g., are the full range of options truly made available to them? Is there transparency when communicating the available options?). It is important to reflect that these options are only those prescribed by the aforementioned government-sanctioned and often (increasingly) privately sourced entities, all with a range of value hierarchies and motivations (such as cost-effectiveness). Thus, this analysis disrupts the narratives of choice and empowerment.

Social responsibility discourses

Section 6.2 investigates and analyses the theme of social responsibility. Four main discourses have emerged out of this theme: 'Old age dependency as the source of unfairness between generations' (#5), 'the deserving old' (#12), 'the heroic old' (#13) and 'intergenerational debt' (#14). Figure 6.2 reflects where these discourses stand by grouping them together in a separate set – one that is outside of the grand discourses, yet still in the realm of old age discourses. Social responsibility discourses do not align with the grand discourses that have been brought together in this chapter, and therefore stand outside of, but in relation to, the grand discourses. As expressed in Section 6.2, the narrative of social responsibility might be seen to be in conflict with individual responsibilities, as supported by the logics of modernisation and care management. The social responsibility discourse can still contribute to the diffusion of modernisation logics of the neoliberal governmentality. While doing so, it redefines the identity of old age through the aforementioned discourses of unfairness between generations, deservedness of resources, and the intergenerational contract.

As Schermer (2009) reflects, care management is legitimised by the morality around distributive justice and by the 'principle of justice'; "Because the society shares the medical

costs, patients have a duty to do everything in their power to reduce these costs, and therefore they should be compliant" (Schermer, 2009, p.690). This means that compliance is promoted and normalised as a moral good: older people should have a responsibility to be deserving and live their lives in healthy and productive ways, because otherwise it would be seen as unfair to the next generations. The unfairness discourse is based on this distributive justice.

Those four discourses identified (#5,12,13,14) can be subsumed under *social responsibility*, which can be considered a cluster of discourses. With social responsibility discourses, older people are defined as different and always by reference to others. This means that the old age identity has a primary referent that is the *working age* population, through which an identity of otherness is conveyed for older people. Although, the treatment of 'older people' as one distinct, singular group in these homogenising narratives fails to accommodate and address the stark disparities in living experiences among people over 65: including those of gender, ethnicity, and socio-economic standing (Fealy et al., 2012). This homogenising narrative highlights a constructed 'old age' demographic bracket as the wealthiest demographic, and places it within the 'poor working' versus 'wealthy dependent' dichotomous narrative. This means that the policies are reductively neglecting to address the stratification within this constructed 'old age' demographic, and whether there have been any shifts in this area. For example, we can put this against the reality of austerity that the support for older people has significantly declined, creating rises in death rates amongst the people aged 85 and over (Loopstra et al., 2016). Many people who have been placed into this constructed bracket of old age are living under highly precarious conditions, such as having to sell their houses for their care or living in cold homes in winter[48].

6.3.2 Construction of a theoretical framework

This section presents the explanatory framework that has been developed out of the initial conceptual framework. It will bring forward the relationships identified between concepts and constructs in the Conceptual Framework chapter and show how these links have

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[48] Age UK (2015) has reported that there have been 2.5 million avoidable deaths among older people in England and Wales due to the winter cold over the last 60 years. High energy bills are identified to be one of the primary causes of the problem.

undergone changes. This must be done before elaborating on discussions about the identity of old age in the context of telecare.

The relationships identified previously are going to be amended in this section to bring the relationships between constructs up to date in the context of telecare. The table below reflects both the original and the revised version of the relationships. These changes have evolved and been shaped through the accumulation of knowledge in Findings and in the current chapter.

Original statement (in Section 3.4.2)	Revised statement
1) Old age discourses surface through scientific classification practices.	Scientific classification practices that manifest in care policies and in telecare service institution practices make visible a number of old age discourses.
2) Old age discourses surface through institutional dividing practices.	Institutional dividing practices that manifest in care policies and in telecare service institution practices make visible a number of old age discourses.
3) Policies and institutional practices socially position older people.	The discourses and processes/relations embedded in policies and institutional practices socially position older people in explicit and implicit ways and promote particular identities.
4) Old age identity reflects old age discourses.	Old age identity reflects old age discourses, grand discourses of old age, and also structural processes and relations that manifest in the context of telecare and old age.
5) Grand discourses of old age are enacted and altered through policies and institutional practices that relate to ICTs.	Discourses present within the grand discourses of old age are reproduced, sustained, and in some ways expanded through care policies and institutional practices that relate to telecare ICTs.

6) Telecare information systems are sociotechnical assemblages.	Telecare information systems are sociotechnical assemblages that are composed of entangled technological, political, social and economic elements that frame the generation, circulation, and deployment of old age discourses.

Table 6.2 Revised statements on the relationships between theoretical concepts and constructs

In addition to the original statements, the diagram depicting the production of knowledge about old age and the formation of old age identity has also been revised, in Figure 6.3. The former version of the diagram (Figure 3.2) can be accessed in Section 3.4.2. The previous presentation has been amended in a way that now places the care policies and practices of telecare service institutions in the overarching context of modernisation in social care services and of care managerialism. This is because they reflect political and economic processes and relations that contribute to the knowledge formation about people.

Grand discourses of old age have been placed in the domain of discourses of old age, which represents the current and continuous discourses. It is recognised that the grand discourses are not the only discourses that socially position older people; other discourses that exist outside the grand discourses also contribute to the knowledge accumulation about old age. In Figure 6.3, older people are presented as the objects and subjects of discourses of old age; they are classified and assessed by policies and institutional practices, and they are also affected by structural processes and relations. Collectively, these apparatuses position older people within the domain of 'Discourses of old age', yet not solely inside the grand discourses. Based on the previous discussions, it is also demonstrated in the figure that the cluster of discourses subsumed under *Social Responsibility* are positioned outside of the grand discourses, yet still manifest as an element that make up the old age identity.

The next section deals with the final discussion about the old age identity based on this model. The reconstructed relationships in this section inform this discussion.
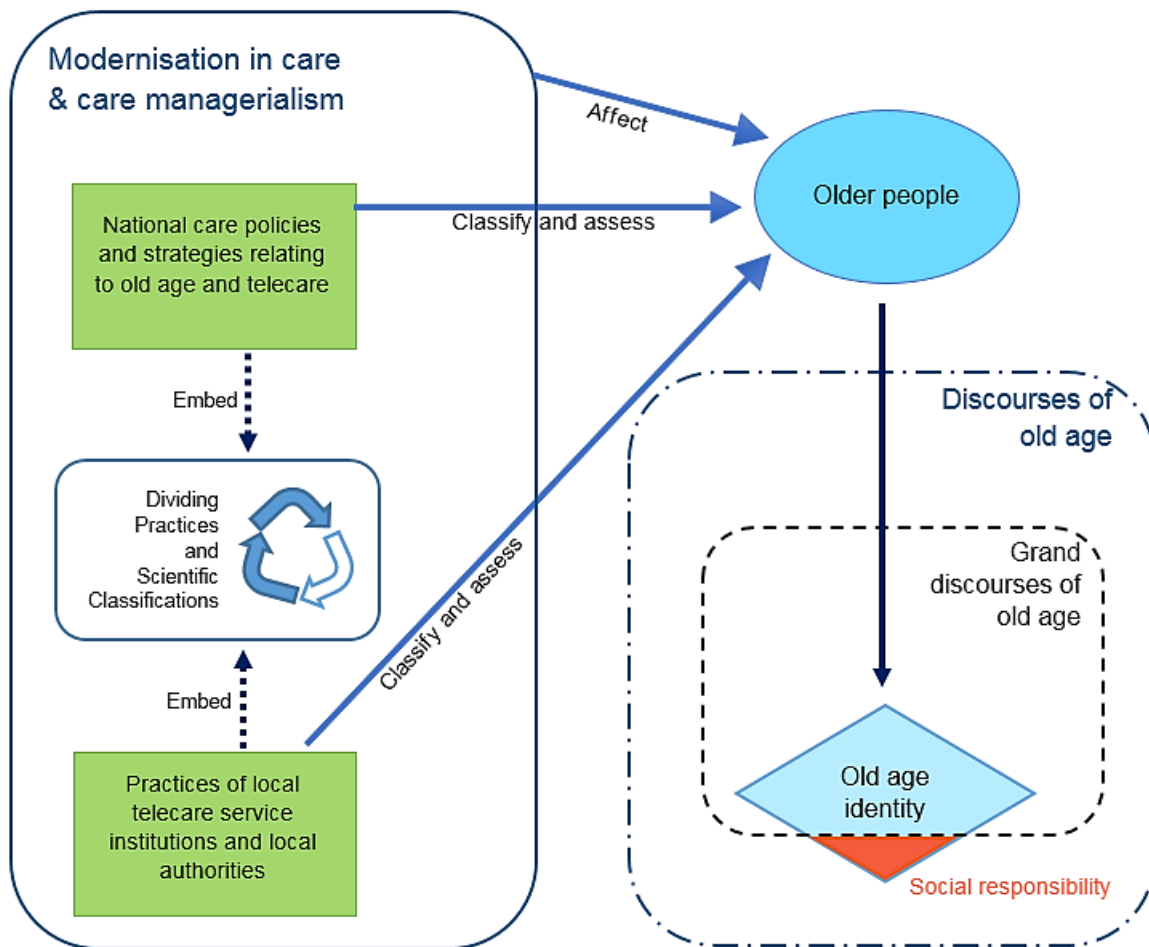
Figure 6.3 Revised diagram that presents the elements of production of knowledge about old age and the formation of old age identity (Own illustration)

6.3.3 Conclusion: Redefining the old age identity

In this chapter, it has been demonstrated that there are various discourses and structural processes that contribute to the social positioning of old age. Old age identity cannot be separated from these elements, especially with regard to its relationship with the grand discourses. The grand discourses of old age have been continuous over a particular time frame. This chapter reveals that those discourses present within the grand discourses have been enacted in various ways in macro level policies and meso-micro level institutional

practices. It is also timely to reflect back on Weedon's definition: "identity is perhaps best understood as a limited and temporary fixing for the individual of a particular mode of subjectivity as apparently what one is. One of the key ideological roles of identity is to curtail the plural possibilities of subjectivity inherent in the wider discursive field and to give individuals a singular sense of who they are and where they belong" (2004, p.19). This singular sense of being has been highly echoed in this thesis.

It is recognised in this thesis that the modern interventions of the state give life to the population with the propagation of health and longevity, and that the categorisations of older people can serve such functions as targeting public resources to meet particular needs in this population. However, the state government and social services institutions also constrain this population with the continuous monitoring of life; and the same categorisations can have negative consequences too, such as positioning older people as passive, dependent, and in need of care. For example, the analysis of macro, meso and micro level data in this chapter revealed that 'older people' are categorised as a homogenised group with reference to their current 'inactivity' (as opposed to the productivity of working age people), and to their chronological age. By implication, this constitutes a uniform identity of dependency.

Furthermore, the medicalisation of bodies constitutes new forms of power-knowledge relations by which normal/abnormal, and illness/health are defined (Foucault, 1994). Foucault argues that knowledge and power are imbricated one in the other, because the most powerful discourses – those that have the most productive social effects – depend on the *regime of truth*, on the assumption that their knowledge is true (Rose, G., 2001). The regime of truth highlights the normalising effect of discourses. Foucault states that, with the categorisation of the individual (by scientific classifications and dividing practices), the individual becomes a carrier of meaning and of an identity (Dagg and Haugaard, 2016). In this thesis, the policies and institutional practices are considered to be the "validator of that subject identity" which "impose upon [individuals] a form of control" (Dagg and Haugaard, 2016, p.397). These power relations are "governmentalized, that is to say, elaborated, rationalized, and centralized in the form of, or under the auspices of, state institutions" (Foucault, 1982, p.793). The type of governmentalization identified in this thesis makes "social and personal consequences of [old age] an object of political concern", and renders older people "knowable, calculable and thereby amenable to various strategies of intervention" (Wahlberg and Rose, 2015, p.1). With telecare, strategies of intervention in older people's lives have manifested in various specific ways.

In this chapter, the grand discourses and the discourses of old age - as extracted from macro, meso and micro level policies and practices - reflect the logics and rationalities of the current regime of truth. Discourses are "socially constitutive as well as socially conditioned – [they] constitute situations, objects of knowledge, and the social identities of and relationship between people and groups of people" (Fairclough and Wodak, 1997, p. 258). Discourses are socially consequential because they can help to sustain the status quo. In this chapter, those discourses that have been enacting the grand discourses of old age have been identified. In addition to this, the chapter reflected on the disruption of discourses and highlighted significant old age discourses that have not historically existed as part of the grand narratives.

Old age identity is the combination of these continuous and disrupted discourses and grand discourses. Most discourses of old age – as expressed through telecare policies and institutional practices – place older people outside of the society, and assume homogeneity of their identities. Representing older people as the unproductive population, as a risk, as error-prone and frail, and as deserving of tax-funded benefits constructs an identity of dependence, which supports yet another identity: older people as 'different than', 'distinct from', or 'other to'. In the construction of this present identity of otherness, discontinuities have been observed between past and present identities of older people. For example, there was no reference to older people's *working age* years – apart from declaring older people as wartime heroes, and a discourse of opposition was used in policies: working age vs older people.

The 'social welfare' grand discourse of old age has been expanded with the addition of technology-specific relations, and, following this analysis, it was stated that the 'choice and empowerment' narrative has been disrupted. This is because the independence narrative has been overshadowing the increase of certain dependencies and the intensifying gaze of professionals over older people. The freedom to choose has been defined as a technique of governmentality that transfers responsibilities over older people through their own rational choices (Guta et al., 2012). The embodiment of 'rational choice' was defined as a central assumption of neoliberal governance (Foucault, 2008), which was found to be applicable in the analyses of this thesis. Therefore, the narratives of choice and empowerment were revealed as an apparatus of surveillance – whether by compliance or concordance (Schermer, 2009).

On the other hand, a new cluster of old age discourses were found to have implications on the identity of old age alongside the historical constructions of identity via grand discourses. Social responsibility discourses demonstrated that the old age identity is constructed in ambivalent ways. Because the apparatuses of modernisation and care management reflect the welfare state's transforming neoliberal values and logics – such as 'politics of participation' (Powell and Biggs, 2000), self-responsibility and individualisation – I identified social responsibility as a shifting discourse. However, its continuity still manifests in policies. This led to the identification of the social responsibility discourse as a vehicle that appeals to traditional community values, while carrying forward the practices of intervention in older people's lives. Also, within the cluster of discourses subsumed under Social Responsibilities, conflicting discourses were observed. One discourse constitutes old age dependency as a source of unfairness towards younger generations (based on the implied principle of 'distributive justice' (Schermer, 2009)); the other two discourses construct the old age identity as deserving of the younger generations' help due to intergenerational debt. In these conflicting discourses, a commonality was identified: older people have been always defined with reference to younger age groups.

The identity constructions in relation to telecare therefore separate old age from the rest of the population, and institutionalise the distinctions between older people and mainstream society. These identities are constructed through placing older people outside of society - as secondary, peripheral, dependent - and as discontinuous in terms of their past and present identities. In the context of telecare, the policies and institutional practices that refer to old age and telecare technologies revealed: 1) discourses that enact the grand discourses of old age; 2) new processes and relations in the lives of older people in relation to telecare; and 3) discourses that have overshadowed certain narratives and relations, have only reflected limited perspectives, and thus have been disrupted in this thesis.

The construction of these identities matters for older people because: 1) certain forms of governance are formed that describe, judge, measure and compare by "imposing new delimitations on them" (Foucault, 1977, p.184); 2) this leads to *technologies of the self* (Foucault, 1983) and *looping effects* (Hacking, 1995). With the discourses and identities acknowledged in this chapter, it can be said that older people comprise a distinct human kind, and that older people turn themselves into subjects of old age too. Then the key assumption here is that this human kind is "modified, revised classifications [about it] are formed, and the classified change again, loop upon loop" (Hacking, 1995, p.370). The

classifications by sciences – in particular the knowledge of certain sciences that are dominantly favoured by state institutions – are intricately linked with how older people construct their own selves. Therefore, the dominant old age identities and powerful discourses that have been revealed in this chapter are likely to produce social effects.

6.4 Summary

This chapter acts on the themes identified in Findings and draws conclusions about the identity of old age that is constructed through various modes of objectification, structural processes and relations, and discourses of old age. The analysis of scientific classifications reveals that the knowledge and methods of the fields of economics (and finance), statistics, and medicine have been the favoured sciences in the manifestation of policies and institutional practices at macro, meso and micro levels. The scientific classifications and dividing practices identified have been useful in disclosing several discourses of old age that have been constructed via the government and local authorities. These discourses position older people as a burden, as a financially secure group, as unproductive in relation to younger generations, as youthful, as error-prone, forgetful and frail, as deserving/undeserving, and as an intermediary of unfairness on younger populations. I have demonstrated that these discourses reflect selectively filtered and/or conflicting, often dichotomous, logics that are embedded in them. Moreover, the obvious point that this artificially constructed demographic is in fact a state of being that those in all other age brackets who live past retirement age will inevitably become (as is highlighted in the reference to battling society's fear or stigmatisation of old age as an undesired state of being) appears to be lost in narratives that position 'older people' as a somehow separate entity, a singular, other identity.

The two important structures whose processes and relations also position old age were identified to be *Modernisation* and *Care Management*. They provide the wider political and economic context through which institutional categorisations and scientific classifications have been made possible. Additional discourses were identified while analysing structural processes and relations: older people as independent individuals with own resources, old age as a risk, and older people as a 'case'. In addition to these, the discussion of social care modernisation and care management has revealed manifold processes that position older people in certain ways and support the formation of discourses of old age. A list of these

processes and relations can be found in Table 6.1. Dominant manifestations that have appeared in the processes of modernisation and care management are: the hollow state, responsibilization, professionalism, and consumerism.

Grand discourses of old age have been found to be dominantly sustained by the discourses and processes identified in macro, meso and micro levels. As a result, I identified discourses and processes that 1) sustain the historically continuous discourses, 2) those that contribute to the expansion of grand discourses, and 3) those that exist outside of the grand discourses, yet are still constitutive of old age identity. The *social welfare* grand discourse has been expanded with the addition of technology-specific relations and through the disruptions identified in empowerment, independence and choice narratives of old age. These discourses were identified to be in conflict with the processes of intensifying professional gaze, the ongoing surveillance through technologies, and the forms of dependency on technologies and professional roles. I have asserted that care managerialism and modernisation reflect a limited view of independence and empowerment, because the government's particular definitions are laden with embedded value hierarchies from medical and economic lenses, and a range of motivations such as cost-effectiveness. Therefore, it is worth disassembling from whom older people are becoming independent, and from which range of options do they choose.

The social responsibility discourse was observed to be an interesting theme that emerged out of the data, particularly in the macro level. I identified this discourse to be external to the grand discourses of old age, yet have reflected that it is still constitutive of an old age identity. Even if it is a dissolving discourse, it is not a discontinuous one. As a powerful narrative, social responsibility supports the conflicting logics and processes of social care modernisation and care management, and it reveals the morality around a system of 'distributive justice' (Schermer, 2009), whilst appealing to traditional community values. Some narratives present in policies have been found to reflect certain misleading positions about old age by presenting it as a homogenous identity. I argued that policies are reductively neglecting to address the stratification within the constructed 'old age' demographic, and whether there have been any shifts in the categorisation of older people as wealthy. The homogenisation of old age can distract from highly pertinent issues, such as the realities of

precarious conditions that old people live with, and the increasing stratification and gap between poorer and better-off members of all age demographics in the UK[49].

Finally, these accounts were brought together to draw a conclusion on old age identity within the context of telecare information systems. I have concluded that the identity construction process at all levels of data has separated old age from the rest of the population and institutionalised the distinctions between older people and mainstream society. Some of these identity positionings place older people outside of mainstream society, and presents them as discontinuous in terms of their past and present identities.

The following chapter will reflect on what all this means for telecare, and lay out those theoretical, methodological, and practical contributions, and recommendations, which are added to literature and policy with this thesis.

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[49] "As well as average wealth levels, there are also big differences in how equally wealth is distributed within generations (…) Gaps in net financial wealth between poorer and better-off members of older cohorts are very large and have risen in recent years" (Intergenerational Commission, 2017, p.6).

7 Conclusion and Contributions

The previous chapter highlighted changes in the conceptual framework and presented an explanatory theoretical framework. In this chapter, contributions and possibilities for further research will be discussed. Section 7.1 summarises the research and lays out important conclusions from the Analysis and Discussion chapter. Section 7.2 elaborates on the theoretical, methodological and practical contributions of this thesis. Section 7.3 discusses the notion of generalisability for this thesis, and, finally, Section 7.4 suggests pathways for future research.

7.1 Summary and main points

This thesis uses Foucault's modes of objectification framework, discourse analysis, and principles of critical theory to locate old age discourses as well as the processes and relations that affect the identity of old age within telecare information systems. It is important to study telecare because of the increasing expenditure on these technologies and the intensifying legitimisation processes by consecutive governments in the UK. Telecare lies within wider debates on the "devolution of power versus control and standardisation" (Klecun-Dabrowska, 2003). These debates were present in the analysis of the modernisation processes and the care managerial relations at policy and institutional levels.

A multi-layered approach was used in this research to investigate and reveal the old age discourses embedded within telecare-related policies and strategies (macro level), local authority strategies (meso level), and local practices with technologies (micro level). These layers were found to be connected to and indicative of wider trends and structural relations. The problematisation of old age via care policies and institutional practices provides the conditions in which telecare technologies are offered as solutions to the old age problem. However, this thesis asserts that telecare technologies are not socially vacuous solutions, that is to say, solutions that are neutral and devoid of values and politics; because various dominant normalisations and rationalisations of governmentality are embedded in the legitimisation and implementation of telecare technologies. It is therefore important to examine technologies within their wider political, economic and social domains. The discursive policies and practices around telecare reflect those changes in the wider context;

they also have social consequences on the lives of older people, such as the means through which they access services and funding, their negotiation with the gatekeepers to services, the frequency and quality of their relationship with health and social care professionals and their support groups, their well-being and mental health, and so on.

Through the analysis of macro, meso and micro level data, it has been demonstrated that old age identity is being redefined in the context of telecare. Grand discourses of old age are reproduced and sustained with the discourses and processes of policies and institutional practices, in which telecare is explicitly associated with old age. However, it has also been the case that one of the grand discourses - the one that reveals the associations between social welfare and old age - has been expanded with a sociotechnical narrative. This means that the interactions between people and technologies are recognised, and that the technologies are addressed as enablers/mediators.

With the analysis of policies and institutional practices, I revealed: 1) discourses that enact the grand discourses of old age; 2) new processes and relations in the lives of older people in relation to telecare; and 3) those discourses that overshadow certain narratives and relations. These new processes and relations – namely, *modernisation of care services*, and *care managerialism* – represent dominant structures within the domain of neoliberal economic policies, and they have marked effects on old age discourses. I concluded that the identity construction of old age in relation to telecare separates old age from the rest of the population. Old age identity is constructed through placing older people outside of society, as secondary, dependent, and discontinuous in terms of their past and present identities.

Narratives about old age were found in many cases to be dissonant, and in some cases arguably misleading in their depiction of 'old age' as a somehow fixed, stable, homogenous and singular demographic of people; rather than as a fluid state of being (age), and a label which artificially links myriad people with different lifestyles, values, and socio-economic conditions. Furthermore, one can argue that such narratives – some of which mimic the language found in private sector marketing – possess and impose embedded hierarchies of value. They can be said to present assumed and singular definitions of subjective terms, such as 'independence' and 'choice', and depict 'quality of life' as something that can be quantifiable and accurately measured through surveys, risk assessments, and statistical methods. All these elements constitute a redefined identity of old age in the context of telecare information systems.

The discursive analysis conducted in this thesis captures a snapshot of the early intervention period of the state government and local authorities in the wider deployment of telecare technologies. Since the dominant logic and rationalities embedded in telecare technologies are the biased carriers of meanings about old age, this snapshot presented those narratives surrounding and enabled by telecare. Identities present a limited and temporary fixing for individuals (Weedon, 2004); therefore, the use of this metaphor - taking a snapshot - mirrors the understanding of how identities work.

It is worthwhile to remember again that modern interventions of the state governments are planned to give life to the population with the propagation of improved health and longevity, and that categorising older people can serve such functions in targeting public resources to meet particular needs in the population. Moreover, the practical value of telecare is increasing due to technological developments, which translates into cheaper and better equipment. In the era of neoliberal governmentality, recognising the individualising effects of social care reforms would be essential, because individual responsibilities over social responsibilities are becoming a reality. This indicates a change in social relationships and interactions, as well as a rise in difficulties such as loneliness and social isolation. Therefore, telecare can be a 'solution' in several respects, and it can indeed empower its users. This thesis is not critical of the legitimisation of these technologies to the extent that it asserts telecare only leads to adverse effects in older people's identities and lives. Telecare is becoming embedded into the routines of everyday life for many users, and I believe that this is not solely a product of a governmental agenda.

However, I still critically approach the issue that the government and social care service institutions also constrain older people with the continuous monitoring of life and the construction of knowledge on old age through telecare. The same governmental and institutional categorisations that serve specific functions can also have other less desirable consequences on social life by giving individuals "a singular sense of who they are and where they belong" (Weedon, 2004, p.19). This homogenisation can erase the complexity of needs, capabilities, dispositions, and preferences in individual lives, whilst obscuring highly pertinent social issues such as gaps in financial wealth of especially older age cohorts.

7.2 Contributions

In this section, I will divide contributions into three groups: 1) theoretical, 2) methodological, and 3) practical/policy contributions.

Theoretical contributions

As presented in the Analysis and Discussion, telecare information systems have been established to be sociotechnical assemblages, which are composed of entangled technological, political, social and economic elements that frame the generation, circulation, and deployment of old age discourses. Ultimately, this thesis presents a theoretical contribution with regard to the conceptualisation of telecare information systems, as well as the conceptualisation of relations between an important social identity (old age) and technologies (telecare).

The Research Design chapter has explained that gaps in literature have been identified via the mode of *application spotting* (Alvesson and Sandberg, 2013). This mode indicates a lack of particular perspectives in a specific research area, and claims that the literature can be extended or complemented with different perspectives. This thesis contributes to the domain of critical IS research with the use of Foucauldian frameworks. I have noted how, although it has been reflected that Foucault's theories possess a great potential for "understanding control in liquid modernity" (Willcocks, 2006, p.274), Foucauldian critical IS research has only seldom been conducted in the context of social care information systems. Moreover, interactions of IS with the field of gerontology, old age and ageing studies have also been identified to be limited. However, the boundaries of the IS field remain fluid, which provides IS scholars with the flexibility to allow new ideas into the field. It is fortunate for this research to be part of the IS domain because of the field's diversity in terms of its multidisciplinary base (Hirschheim and Klein, 2011). With this thesis, the social consequences of telecare technologies were investigated in its sociotechnical assemblage. Particular structural processes and relations, which have social effects on social identities, have been identified in this sociotechnical system; this was mainly guided and informed by the history and grand discourses of old age – knowledge of critical gerontology and old age studies.

Echoing the contributions of Klecun-Dabrowska's critical study on telehealth (2003), this thesis cannot claim to have changed the world in terms of emancipation, but can still contribute to a degree of 'enlightenment' (p.43). Klecun-Dabrowska (2003) argues that challenging common, taken for granted perceptions about technologies and revealing different rationalities and conflicting processes lead to enlightenment. With the use of critical theory, this thesis contests the notion of inevitability, and it illustrates how the regime of truth makes certain rationalities appear as 'normal' and overshadows certain narratives. As Hacking suggests: no trajectory is "determined by the nature of things" (Hacking, 1999, p.6), meaning that the ways in which telecare technologies have been offered as a solution to certain identified problems, how they are being legitimised, and how certain discourses are enabled and mediated through them are not inevitable occurrences. Telecare technologies are socially constructed through interconnected factors and actions on macro, meso and micro levels; at the same time, they are socially constitutive. They "constitute situations, objects of knowledge, and the social identities of and relationships between people and groups of people" (Fairclough and Wodak, 1997, p.258). This has been found to be the case with older people and the construct of old age identity in this thesis.

In her work, Avgerou addresses the marginalisation of certain groups in ICT innovation (Avgerou, 2002). In this thesis, the marginalisation of older people has been identified to be mediated through homogenisation and through particular discourses that can potentially have negative social effects. Yet the identification of this 'danger' (Rabinow, 1984) is capable of producing arenas for micro resistance for certain groups in society. In other words, identifying the ways in which older people are marginalised can help individuals "choose the least dangerous of several dangerous alternatives" (Alvesson and Sköldberg, 2009, p.258). This is a form of emancipation, although not in Habermasian terms, because I reflect that relations of power are not something that one must be emancipated from (Willcocks, 2006).

It has been argued that the use of the Habermasian approach in IS research has not been very successful because of lacking extensive theorisation of preconditions and causes of power constraints (Mitev, 2005). In this thesis, the scientific classifications, dividing practices, and structures of modernisation and care management can be seen as the preconditions of the governmentality logic being applied to daily life. These provide the conditions for power/knowledge circulation by the dominant stakeholder groups: state governments, local authorities and social care service institutions. It is demonstrated in this research that telecare

information systems are not arbitrary social constructions, but are rather a representation of the regime of truth, which has a normalising effect on discourses that are constructed within the information systems.

A critical approach also made it possible to question taken for granted assumptions. It was revealed that certain relations - such as surveillance and the intensifying relationships between professionals and older people - were overshadowed by narratives of empowerment and personal control through choice. It has also been the case that policies imposed a particular form of 'choice' and independence' – one that is defined by the government and is laden with embedded value hierarchies from medical and economic lenses. Therefore, the analysis has disrupted the narratives of choice and empowerment. At the same time, conflicting narratives of 'unfairness on younger generations' versus 'social responsibilities' have been identified within the policies. Although positioned outside of the grand discourses, these are still significant discourses that make up the old age identity. That is because the social responsibility discourse positions older people in the complex arena of conflicting logics of individual versus social responsibilities. Overall, these conclusions imply that the experiences of old age are constrained by governmental policies and institutions because of a complex set of agendas and practices that have the power of legitimising a particular order of things.

Methodological contributions

The methods that have proved to be useful in the data thematisation process were the use of forewords and of visual elements of the policy documents. These elements reveal the core of the lengthy government publications, and I identified more insights into the discourses of old age through them. This is because the forewords reflect personal voices of the politicians, and they refer to older people and old age with the use of labels. This technique of referring heavily to the 'old age problem' in forewords can be seen as a facilitator to ensure that the rest of the document offers solutions to the problem identified. During this problem identification, much is revealed with regard to the old age identity as constructed through policies.

Secondly, the visual elements reveal new meanings that may not have been directly or explicitly stated in text. Messages are conveyed through the use of illustrations, diagrams, case descriptions, and quote bubbles. These elements present visualisations of statistical

information that give insights into scientific classification and dividing practices of old age, reflect empowerment and choice related messages (that complement the structural processes lying underneath), and report case study findings of telecare use. An *absent theme* was also spotted in the Findings chapter (Table 5.2) when a visual analysis was undertaken.

Practical/Policy contributions and recommendations

Public policy papers offer a window on governmental values in the wider context of political, social and economic processes. At the same time, they can be important vehicles in the formation of public opinion. In this thesis, it has been identified that: a) the language in policy discourses construct old age in particular ways through the selective filtering or selective construction of knowledge (mainly economic and statistical), and b) the language of policies is rarely neutral. Because of this constitutive power, the onus is on the governments in the way they represent older people or any other particular social group.

Apart from the social responsibility discourse, it has been the case that policies and strategies in this thesis do not reflect older people's contributions to society. Even when the theme of social responsibility is laid out in policies, the discourse is constructed upon older people being deserving/undeserving based on wartime sacrifices and their past contributions to society. It is recommended that "older people should be conducted with reference to their role as fully contributing members of society and not as a social group outside of mainstream society" (NCPOP, 2009, p.28). Labelling and referencing older people at macro, meso and micro levels should undergo a careful consideration to avoid implying homogeneity of this group with reference to their capabilities, socio-economic status, and social care needs.

As for the implications for meso and micro levels, telecare technologies embed in their functionalities those normative ideas of empowerment, concordance, compliance, self-management, and also morality around a constructed 'principle of justice' (Schermer, 2009). These ideas can be restrictive because they embed compliance-promoting apparatuses. It is important for telecare developers, telecare commissioners, and telecare professionals to acknowledge these normative ideas. Creating more collaborative and concordant forms of self-management can empower telecare users and also raise the awareness of professionals. With this, compliant forms of the professional-service user relationship are not reproduced. This means that the service users' own views, values and goals are not automatically identified with health and social care related goals (Schermer, 2009). Older people can

integrate their own knowledge of their bodies and circumstances into their novel lifestyles in the context of telecare.

7.3 Generalisability

The theoretical framework constructed in this thesis offers generalisability with regard to the relationships between old age and governmentality within the sociotechnical assemblage of telecare information systems. The case study was selected as a representative case at the beginning, and particular attention was given to the national policies. A chain of evidence, as presented in the Research Design, was designed and followed. Tsang and Williams' (2012) 'theoretical generalisation', and selected principles from Yin's (2009) 'analytical generalisation' and Lee and Baskerville's (2003) 'ET Type Generalisability' define the type of generalisability that can be applied to this research.

Tsang and Williams (2012) assert that findings from case studies can be generalised to other contexts. This depends on the quality of the research design's execution. This thesis has aimed to follow a chain of evidence and to execute the research design well in order to allow for a degree of generalisation beyond this thesis' case study. One strength of the study is that the macro level data originate explicitly from public and national policies. Thus the discourses and relations identified at the macro level may possess a higher degree of generalisability due to being relevant nationwide in England. Because the links between macro level and meso-micro levels have been demonstrated, the empirical case acts as the localised part of research. The empirical case is based on a representative telecare initiative whose practices strongly align with the governmental policies and strategies. Theoretical generalisation is possible for this research, because it fits into the ET Type Generalisability (Lee and Baskerville, 2003). It means generalising from empirical statements (descriptions) to theoretical statements, and this has been demonstrated in the previous chapter.

7.4 Further research

Telecare technologies are powerful mediators of discourses and are bound to be an even more significant part of older people's lives in the near future. In the UK, "an ageing population met with the reduction of social care funding" (Cook et al., 2018, p.1912) has been leading to a reduction in support that is available to older people. The innovative telecare technologies are viewed as a viable way to support older people, and there are more recent studies in various fields that have been conducted on such topics as: the barriers to adoption of telecare technologies, the factors that influence the decision to adopt telecare, the factors that are predictive of its continued use, and the importance of context in the implementation and adoption of telecare (Cook et al., 2016; Hsu et al., 2016; Yusif et al., 2016; Bozan et al., 2016; Berge, 2017; Hamblin et al., 2017; Cook et al., 2018). Besides academic studies, recent research is carried out by the UK and EU public bodies, which evaluate the state of telecare and devise new strategies for improvement (JAseHN EU, 2017; King's Fund, 2018; TSA, 2018). The ongoing academic and public engagement with these technologies reflects that there are still noteworthy consequences, challenges, concerns, and debates surrounding telecare, which makes telecare technologies significantly relevant in terms of the discourses they may mediate.

In this thesis, it has been revealed that telecare information systems are driven by certain powerful - and sometimes conflicting - rationalities and discourses about old age. The old age identity constructed upon these discourses does not only socially position older people for others, but also constitutes an own sense of identity for older people. This is why it is imperative to suggest further research that is concerned with the *self-subjectification* practices, and that answers the question 'how older people turn themselves into subjects in the context of telecare'. It is an equally PhD worthy subject. More reflection upon the experiences of older people with telecare and on the consequences of *looping effects* can add important insights to the full circle of modes of objectification.

Besides older people, it is also important to investigate those voices that can arise out of the older people's network; this includes: their support groups (mainly families), their neighbours who are part of the telecare network, their carers, occupational therapists, GPs, and so on. These actors can offer invaluable insights into how telecare technologies affect the lives of the older people with whom they are regularly in contact. Such research would focus on the individuals' experiences of and thoughts about technologies and about the use

of telecare by people who are close to them in a familial or professional way. These individuals could define or give meanings to telecare technologies in novel ways, and may suggest practical recommendations.

One demographic that has been missing or overshadowed from policies and strategies has been people with disabilities. Older people with disabilities have the highest prevalence of disability within their age group (65 and over) compared to other age groups, yet people with disabilities from other age groups are overall higher in number[50]. It has been observed in this thesis that the policies about housing, carers, telecare, and other social care issues have mainly focused on old age. It would be interesting to investigate the narratives in care technology policies and in industry reports which target disabled people.

Finally, it has been evident in this thesis that governmental policies employ the knowledge of economics, statistics, and medicine to a great extent. The academic papers from the medicine and health economics fields that study specific technologies used in health and social care can be investigated with more critical attention. The ways that the specific knowledges of these fields refer to technologies can be limited with reference to the knowledge of information systems and to social sciences in general. Yet, due to their historically constructed power/knowledge, these studies can lead to the generation of powerful discourses about technologies and about those demographic groups of concern. This critical overview of articles can reveal the conflicting logics, dominant ideologies, and taken for granted assumptions about technologies dominantly present in those fields.

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[50] "The prevalence of disability rises with age: in 2012/13, 7% of children were disabled (0.9 million), compared to 16% of adults of working age (6.1 million), and 43% of adults over state pension age (5.1 million)." (Papworth Trust, 2016, p.8).

APPENDICES

APPENDIX A: Application form for telecare services

MoleValley
District Council

Application for Telecare Services
from
Mole Valley District Council

Mole Valley District Council's Telecare Service is an established provider of high quality telecare to residents of the borough for more than 20 years.

It is important that we have up to date information about all our Service Users as this will assist us in delivering the best quality service possible to you.
These details are also very useful in the case of an emergency.

Data Protection Act 1998: Information provided on this application from will be used and retained for the purposes of administering our service to you and will not be disclosed outside Mole Valley District Council and the Emergency Services.

Please Complete Using Block Capitals

Applicant Information

| Title: | | Date of Birth: | |
| Forename: | | Surname: | |

Partner Information

| Title: | | Date of Birth: | |
| Forename: | | Surname: | |

House Number:		House Name:	
Street:			
Town:		County:	
Post Code:		Telephone Number:	
Keysafe Installed	Yes / No	Mobile Number:	
Code Number:			
Location:			

Tel: 01372 204500   Fax: 01372 819093
www.molevalley.gov.uk
e-mail: telecare@molevalley.gov.uk
Telecare Services, Mole Valley District Council
Park House, Randalls Road, Leatherhead, Surrey. KT22 0AH

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Applicant Medical Information

Medical Conditions:

If impaired, please provide additional information

Hearing:	☐ Good ☐ Impaired	
Sight:	☐ Good ☐ Impaired	
Mobility	☐ Good ☐ Impaired	
Care Services:	☐ Yes ☐ No	Telephone Number
No. of Visits/day		
Agency Address:		

Partner Medical Information

Medical Conditions:

If impaired, please provide additional information

Hearing:	☐ Good ☐ Impaired	
Sight:	☐ Good ☐ Impaired	
Mobility	☐ Good ☐ Impaired	
Care Services:	☐ Yes ☐ No	Telephone Number
No. of Visits/day		
Agency Address:		

Applicant GP Details

Name of Doctor:

Surgery Address:

Telephone:

Partner GP Details

Name of Doctor:

Surgery Address:

Telephone:

Emergency Contact 1

Forename:		Surname:
House Number:		House Name:
Street:		
Town:		County:
Post Code:		Relationship:
Home:		Work:
Mobile:		Other:

Next of Kin: ☐ Yes ☐ No

Keyholder Contact: ☐ Yes ☐ No

Emergency Contact 2

Forename:		Surname:
House Number:		House Name:
Street:		
Town:		County:
Post Code:		Relationship:
Home:		Work:
Mobile:		Other:

Next of Kin: ☐ Yes ☐ No

Keyholder Contact: ☐ Yes ☐ No

Emergency Contact 3

Forename:		Surname:
House Number:		House Name:
Street:		
Town:		County:
Post Code:		Relationship:
Home:		Work:
Mobile:		Other:

Next of Kin: ☐ Yes ☐ No

Keyholder Contact: ☐ Yes ☐ No

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Emergency Contact 4

Forename:		Surname:	
House Number:		House Name:	
Street:			
Town:		County:	
Post Code:		Relationship:	
Home:		Work:	
Mobile:		Other:	

Next of Kin: ☐ Yes ☐ No

Keyholder Contact: ☐ Yes ☐ No

Emergency Contact 5

Forename:		Surname:	
House Number:		House Name:	
Street:			
Town:		County:	
Post Code:		Relationship:	
Home:		Work:	
Mobile:		Other:	

Next of Kin: ☐ Yes ☐ No

Keyholder Contact: ☐ Yes ☐ No

Additional Information

Personal	Applicant	Partner
Ethnicity:		
Spoken Language: (If other than English)		

Property

Property Type:		(eg. house, bungalow etc)
Directions:		
Telephone Provider:		
Alarm Location:		

Other Details:

I confirm that to the best of my knowledge the information I have provided is correct. I accept that the information will be treated as confidential by Mole Valley District Council and their contracted Alarm Receiving Centre(s).

I give my permission for the information I have provided to be shared with other agencies i.e. Emergency Services, Doctors, Social Care Services

☐ Yes ☐ No

Signed: _____ Date: ☐☐ ☐☐ ☐☐☐☐

TELECARE SERVICE
RESIDENT DETAIL FORMS

MoleValley
District Council

Office use only

Alarm Type [   ]   Serial Number [   ]

ID Number [   ]   Telephone extension provided [ ] Yes [ ] No

Power extension provided [ ] Yes [ ] No   Telephone provided [ ] Yes [ ] No

Additional Telecare Equipment			**Routine & Emergency Visit Record**
Sensor Type	Serial Number	Battery Change Date	Date & initials

CAT Project [ ] Yes [ ] No   Free Period End Date [   ]

Contact Letters Sent [ ] Yes [ ] No   Application Completed By [   ]

Referral Date [   ]   Application Completed Date [   ]

Referral Agency [   ]   Installation Date [   ]

Referrer Name [   ]   Installers Name [   ]

Referrer Contact [   ]

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TELECARE SERVICE
AGREEMENT AND TERMS AND CONDITIONS

MoleValley
District Council

I have today had installed in my home Telecare Emergency Alarm equipment for use in connection with provision from Mole Valley Telecare Support Services.

Service Users Name _____   Identity Number ☐☐☐☐☐

Address _____

_____   Post Code _____

1.   I understand that my rental agreement will commence on ☐☐ ☐☐ ☐☐☐☐
2.   I have read, fully understand and undertake to comply with the agreement and terms and conditions of use and acknowledge receipt of a copy.
3.   The Telecare equipment has been installed to my full satisfaction and demonstrated to be in full working order. The use and operation of the Telecare equipment has been fully explained to me.
4.   All information I have supplied is correct to the best of my knowledge.
5.   I undertake to ensure that all payments are made as they become due.

Code (Office Use only)	Description	Payment Option	Code (Office Use only)	Description	Payment Option
CA99 Direct Debit	Base unit and one pendant	☐	CA120 Direct Debit	Telecare Band A	☐
CA96 Direct Debit	Additional pendant(s)	☐	CA020 Qtr'ly Invoice	Telecare Band A	☐
CA2 Invoice	Base unit and one pendant	☐	CA121 Direct Debit	Telecare Band B	☐
CA3 Invoice	Additional pendant(s)	☐	CA021 Qtr'ly Invoice	Telecare Band B	☐
CA95	Safe Staff direct debit	☐	CA122 Direct Debit	Telecare Band C	☐
CA97	Safe staff extra pendant	☐	CA022 Qtr'ly Invoice	Telecare Band C	☐
CA14 Invoice	Telecare Peripherals Inv.	☐	CA93	Telecare Periph's Mthly DD	☐
For a list of our current prices please refer to your information pack. Prices are subject to annual review. All invoices are paid quarterly all direct debits are monthly.					

Existing Client ☐

Name of Payee if different from above _____

Address _____

_____   Post Code _____

I declare that ☐I am☐ / ☐am not☐ (delete as necessary) an eligible person under paragraph 3 of VAT leaflet 701/7/2002. If eligible, please state relevant medical status: _____
I claim that the supply of this service is eligible for relief from Value Added Tax under group 12 of the Zero Rate Schedule to the VAT act 1994.

Signed on behalf of Mole Valley District Council: _____

Signed by the Service User: _____

Signed by a client* or representative* (if applicable): _____

Print Name: _____   Relationship to Service User: _____

* **Please delete as appropriate.** Client shall be a person who may be paying for the service on behalf of the Service User and the client hereby authorises the Service Provider to deduct payments from their account. Representative shall be taken to mean someone who is signing and entering into this agreement on behalf of the Service User upon their instruction and who may include a client. It should be noted that this agreement remains between the Service User and the Service Provider and the Service Provider will only contact the Service User in the first instance in relation to this agreement and will contact a client or representative only if contact details are forwarded to the Service Provider in writing together with written authority from the Service User authorising a client or representative to be contact in relation to this agreement.

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MoleValley
District Council

Instruction to your bank or building society to pay by Direct Debit

DIRECT Debit

Please fill in the whole form using a ball point pen and send it to:

Mole Valley Telecare Service,
Park House, Randalls Road,
Leatherhead
KT22 0AH

Service user number

7	5	7	2	0	3

Name(s) of account holder(s)

Reference

Instruction to your bank or building society
Please pay Mole Valley District Council Direct Debits from the account detailed in this Instruction subject to the safeguards assured by the Direct Debit Guarantee. I understand that this Instruction may remain with Mole Valley District Council and, if so, details will be passed electronically to my bank/building society.

Bank/building society account number

Branch sort code

Name and full postal address of your bank or building society

To: The Manager   Bank/building society

Address

Postcode

Signature(s)

Date

Banks and building societies may not accept Direct Debit Instructions for some types of account.

Tick here if form complete ☐

Send Form ⤵

This guarantee should be detached and retained by the payer.

The Direct Debit Guarantee

DIRECT Debit

- This Guarantee is offered by all banks and building societies that accept instructions to pay Direct Debits
- If there are any changes to the amount, date or frequency of your Direct Debit Mole Valley District Council will notify you 10 working days in advance of your account being debited or as otherwise agreed. If you request Mole Valley District Council to collect a payment, confirmation of the amount and date will be given to you at the time of the request.
- If an error is made in the payment of your Direct Debit, by Mole Valley District Council or your bank or building society, you are entitled to a full and immediate refund of the amount paid from your bank or building society
  - If you receive a refund you are not entitled to, you must pay it back when Mole Valley District Council asks you to
- You can cancel a Direct Debit at any time by simply contacting your bank or building society. Written confirmation may be required. Please also notify us.

APPENDIX B: Telecare trial offer withdrawn

Free 12 week community alarm + telecare offer to be withdrawn from 1 October 2014

- Surrey County Council is withdrawing its free 12 week community alarm & telecare offer from 1 October. Under this offer, people could have both a community alarm and associated telecare for 12 weeks and ASC paid the cost of their community alarm, which was otherwise charged for by the borough or district.

- Both before and after 1 October 2014, telecare itself is free to people using it because ASC pays for both the equipment and its installation, where people are assessed as needing it. It is the cost of community alarms which the telecare links to which was funded under the 12 week offer which becomes fully chargeable from 1 October.

- The withdrawal is because the offer, which was always intended to be for a limited time only, has served its purpose of raising awareness of telecare and increasing take up of the service. At this point, the largest part of the benefit has been achieved and it is time to bring the promotion to an end.

- People may continue to be referred and accepted into the 12 week free telecare scheme right up to 30 September. Any person accepted into the scheme up to that final date can have a full free 12 week community alarm & telecare package paid for by ASC.

- The CAT Scheme, in which ASC pays for people to have a community alarm for 12 weeks on hospital discharge, remains in place as part of the ASC reablement service – there is no change to this.

- If you have any queries or uncertainties about this change please ask Stuart Deacon (020 8541 7270) or Pauline Jervis (020 8541 8579).

Summary table

Current Telecare Offer	Position from 1 October 2014
Surrey County Council pays for free Telecare peripherals which includes smoke alarms (part of original Service Level Agreement)	Continues
Surrey County Council pays for free Telecare installation	Continues
Surrey County Council pays first 12 weeks of community alarm running costs for ALL those with at least one TC peripheral (linked smoke alarm counts as a peripheral)	**Discontinues from 1 October**
Community Alarm Scheme (CAT) – Surrey County Council pays first 12 weeks of community alarm running costs for those being discharged from hospital or victims of distraction burglary	Continues - the CAT scheme is considered as part of our reablement offer designed to offer time limited support for people on discharge from hospital and during periods of crisis.
	As previously agreed SCC will pay the marginal running costs associated with people who would otherwise have discontinued Telecare after the free 12 week offer for financial reasons

APPENDIX C: Telecare monitoring form 2014/15

SURREY

Final 08/08/14

TELECARE MONITORING FORM 2014/15

Please update this form on a quarterly basis for your telecare service. Please submit your completed form by deadlines detailed below. You **ONLY** need to complete the yellow boxes on the form, all other boxes will automatically update.

Please email your completed returns by the deadline to: SCCMonitoring@surreycc.gov.uk

Performance Reporting Period (please mark with an 'X') & Deadline	1st April - 30th June		Deadline 18thJuly	1st July - 30th Sept		Deadline 24th Oct
	1st Oct-31st Dec		24th Jan	1st Jan - 31st Mar		18th Apr

Organisation Name	

Contact Name (of person completing this form)	

Contact Tele Number (of person completing this form)		Contact Email (of person completing this form)	

Section 1: Referral Activity Data (Alarm, CAT, Alarm + Telecare)

Source of ALL **new** referrals for any service received by your organisation during the quarter

TABLE 1: Source of NEW Referrals received by your organisation during the period	Qrt 1 (Apr-Jun)	Qrt 2 (July-Sept)	Qrt 3 (Oct-Nov)	Qrt 4 (Jan-Mar)	Year to Date position
Adult Social Care	0	0	0	0	0
Self referrals	0	0	0	0	0
Health	0	0	0	0	0
Fire Service	0	0	0	0	0
Care Providers	0	0	0	0	0
Family / Friends / Relatives	0	0	0	0	0
Other	0	0	0	0	0
Internal referrals from D&BC	0	0	0	0	0
Voluntary org / charity	0	0	0	0	0
Total	0	0	0	0	0

TABLE 2: Outcome of referrals	Qrt 1 (Apr-Jun)	Qrt 2 (July-Sept)	Qrt 3 (Oct-Nov)	Qrt 4 (Jan-Mar)	Year to Date
Number of new referrals for BRAND NEW PEOPLE offered and accepting a service	0	0	0	0	0
Number of new referrals for BRAND NEW PEOPLE offered but refusing a service	0	0	0	0	0
Number of new referrals for BRAND NEW PEOPLE where organisation deems service to be unsuitable	0	0	0	0	0
Number of new referrals for EXISTING PEOPLE supported with a community alarm ONLY for installation of new additional telecare peripherals (offered and accepted)	0	0	0	0	0
Total	0	0	0	0	0

TABLE 3: Breakdown of NEW referrals recieved from Adult Social Care Teams	Qrt 1 (Apr-Jun)		Qrt 2 (July-Sept)		Qrt 3 (Oct-Dec)	
	No. New Referrals Received	No. Referrals Received resulting in an installation	No. New Referrals Received	No. Referrals Received resulting in an installation	No. New Referrals Received	No. Referrals Received resulting in an installation
Elmbridge	0	0	0	0	0	0
Epsom & Ewell	0	0	0	0	0	0
Guildford	0	0	0	0	0	0
Mole Valley	0	0	0	0	0	0
Reigate & Banstead	0	0	0	0	0	0
Runnymede	0	0	0	0	0	0
Spelthorne	0	0	0	0	0	0
Surrey Heath	0	0	0	0	0	0
Tandridge	0	0	0	0	0	0
Waverley	0	0	0	0	0	0
Woking	0	0	0	0	0	0
Asford & St Peters Hospital	0	0	0	0	0	0
Epsom & St Heliers Hospital	0	0	0	0	0	0
Frimley Park Hospital	0	0	0	0	0	0
Royal Surrey County Hospital	0	0	0	0	0	0
SCC Contact Centre	0	0	0	0	0	0
Total	0	0	0	0	0	0
Cross check with fig in Row 23	0		0		0	

TABLE 3 (cont.): Breakdown of referrals recieved from Adult Social Care Teams	Qrt 4 (Jan-Mar)		Year to Date position - TOTAL NEW REFERRALS RECEIVED	Year to Date position - % REFERRALS RECEIVED RESULTING IN AN INSTALL
	No. New Referrals Received	No. Referrals Received resulting in an installation		
Elmbridge	0	0	0	0
Epsom & Ewell	0	0	0	0
Guildford	0	0	0	0
Mole Valley	0	0	0	0
Reigate & Banstead	0	0	0	0
Runnymede	0	0	0	0
Spelthorne	0	0	0	0
Surrey Heath	0	0	0	0
Tandridge	0	0	0	0
Waverley	0	0	0	0
Woking	0	0	0	0
Asford & St Peters Hospital	0	0	0	0
Epsom & St Heliers Hospital	0	0	0	0
Frimley Park Hospital	0	0	0	0
Royal Surrey County Hospital	0	0	0	0
SCC Contact Centre	0	0	0	0
Total	0	0	0	0
Cross check with fig in Row 23	0		0	

Breakdown	Qrt 1 (New ASC Referrals resulting in an installation by package type)	Qrt 2 (New ASC Referrals resulting in an installation by package type)	Qrt 3 (New ASC Referrals resulting in an installation by package type)	Qrt 4 (New ASC Referrals resulting in an installation by package type)	Year to Date position - TOTAL NEW ASC REFERRALS RECEIVED by package installed
Alarm / CAT only package	0	0	0	0	0
Alarm plus telecare package	0	0	0	0	0
Of Alarm plus telecare package cohort in row above, *those whose telecare package is 'smoke alarms(s) ONLY*	0	0	0	0	0
Carer Alert only	0	0	0	0	0
Total	0	0	0	0	0
Cross check with fig in table 3 (referrals resulting in an installation per qrt	0	0	0	0	0

Section 2: ALL Installation Activity Data (Alarm, CAT, Alarm + Telecare)

TABLE 4: Breakdown of equipment volumes installed, or removed during the qrt	Qrt 1 (Apr-Jun)		Qrt 2 (July-Sept)	
	Brand New Items (Not Replacements)	Permanently Removed Items	Brand New Items (Not Replacements)	Permanently Removed Items
Alarms	0	0	0	0
Carer Alarms	0	0	0	0
Sensors	0	0	0	0
Bed	0	0	0	0
Enuresis	0	0	0	0
Epilepsy	0	0	0	0
Chair	0	0	0	0
PIR / Exit	0	0	0	0
Pressure	0	0	0	0
Detectors	0	0	0	0
Gas / C02	0	0	0	0
Smoke	0	0	0	0
Heat	0	0	0	0
Falls	0	0	0	0
Wandering	0	0	0	0
Flood	0	0	0	0
Vibrating pillows	0	0	0	0
Safe Sockets	0	0	0	0
Bogus Caller alerts	0	0	0	0
Pill Dispensers	0	0	0	0
Other items (Keysafes etc)	0	0	0	0
Total	0	0	0	0
% of items installed from NEW referrals during the qrt which resulted in a telecare package	0%		0%	

TABLE 4: Breakdown of telecare equipment volumes installed, replaced or removed during the qrt	Qrt 3 (Oct-Dec)		Qrt 4 (Jan-Mar)	
	Brand New Items (Not Replacements)	Permanently Removed Items	Brand New Items (Not Replacements)	Permanently Removed Items
Alarms	0	0	0	0
Carer Alarms	0	0	0	0
Sensors	0	0	0	0
Bed	0	0	0	0
Enuresis	0	0	0	0
Epilepsy	0	0	0	0
Chair	0	0	0	0
PIR / Exit	0	0	0	0
Pressure	0	0	0	0
Detectors	0	0	0	0
Gas / C02	0	0	0	0
Smoke	0	0	0	0
Heat	0	0	0	0
Falls	0	0	0	0
Wandering	0	0	0	0
Flood	0	0	0	0
Vibrating pillows	0	0	0	0
Safe Sockets	0	0	0	0
Bogus Caller alerts	0	0	0	0
Pill Dispensers	0	0	0	0
Other items (Keysafes etc)	0	0	0	0
Total	0	0	0	0
% of items installed from NEW referrals during the qrt which resulted in a telecare package	0%		0%	

TABLE 4: Breakdown of telecare equipment volumes installed, replaced or removed during the qrt	Year to Date Position	
	Brand New Items (Not Replacements)	Permanently Removed Items
Alarms	0	0
Carer Alarms	0	0
Sensors	0	0
Bed	0	0
Enuresis	0	0
Epilepsy	0	0
Chair	0	0
PIR / Exit	0	0
Pressure	0	0
Detectors	0	0
Gas / C02	0	0
Smoke	0	0
Heat	0	0
Falls	0	0
Wandering	0	0
Flood	0	0
Vibrating pillows	0	0
Safe Sockets	0	0
Bogus Caller alerts	0	0
Pill Dispensers	0	0
Other items (Keysafes etc)	0	0
Total	0	0
% of items relating to NEW telecare installations during qrt		

TABLE 5 Breakdown for ASC referrals which resulted in an installation ONLY	Qrt 1 (Apr-Jun) New Items installed as a result of ASC referrals	Qrt 2 (Jul-Sept) New Items installed as a result of ASC referrals	Qrt 3 (Oct-Dec) New Items installed as a result of ASC referrals	Qrt 4 (Jan-Mar) New Items installed as a result of ASC referrals	Yr to Date Position New Items installed as a result of ASC referrals
Alarms	0	0	0	0	0
Carer Alarms	0	0	0	0	0
Sensors	0	0	0	0	0
Bed	0	0	0	0	0
Enuresis	0	0	0	0	0
Epilepsy	0	0	0	0	0
Chair	0	0	0	0	0
PIR / Exit	0	0	0	0	0
Pressure	0	0	0	0	0
Detectors	0	0	0	0	0
Gas / C02	0	0	0	0	0
Smoke	0	0	0	0	0
Heat	0	0	0	0	0
Falls	0	0	0	0	0
Wandering	0	0	0	0	0
Flood	0	0	0	0	0
Vibrating pillows	0	0	0	0	0
Safe Sockets	0	0	0	0	0
Bogus Caller alerts	0	0	0	0	0
Pill Dispensers	0	0	0	0	0
Other items (Keysafes etc)	0	0	0	0	0
Total	0	0	0	0	0

Section 3: People Supported During The Period

TABLE 6: Turnover	Qrt 1				Qrt 2			
	ASC Supported	Private Clients	Status Pending	Total People Supported	ASC Supported	Private Clients	Status Pending	Total People Supported
Number of EXISTING people supported with any service at the beginning of the period	0	0	0	**0**	0	0	0	**0**
Number of BRAND NEW PEOPLE who received a referral and actually supported with a service during the period	0	0	0	**0**	0	0	0	**0**
Number of people CEASING to be supported with a service during the period	0	0	0	**0**	0	0	0	**0**
Number of people supported with a service at the end of the period	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

TABLE 6: Turnover	Qrt 3				Qrt 4			
	ASC Supported	Private Clients	Status Pending	Total People Supported	ASC Supported	Private Clients	Status Pending	Total People Supported
Number of EXISTING people supported with any service at the beginning of the period	0	0	0	**0**	0	0	0	**0**
Number of BRAND NEW PEOPLE who received a referral and actually supported with a service during the period	0	0	0	**0**	0	0	0	**0**
Number of people CEASING to be supported with a service during the period	0	0	0	**0**	0	0	0	**0**
Number of people supported with a service at the end of the period	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Of people who have CEASED to be supported with a package:-	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Yr to Date
Ceased within, or at the end of the 12 wk free trial period	0	0	0	0	**0**
Ceased after 12 wk free trial period	0	0	0	0	**0**

TABLE 7: Reason for people CEASING Package	Qrt 1	Qrt 2	Qrt 3	Qrt 4	Yr to Date Position
Deceased	0	0	0	0	0
Moved to residential care	0	0	0	0	0
Moved to nursing care	0	0	0	0	0
Admitted to Hospital / Rehab	0	0	0	0	0
Move out of area/ county / in with family	0	0	0	0	0
Didn't continue after 12wk free period due to cost of service	0	0	0	0	0
Telecare no longer deemed suitable / client unable to cope	0	0	0	0	0
Financial (charging)	0	0	0	0	0
Other	0	0	0	0	0
Total People ceasing a package (must equate to number of people ceasing to be supported in Table 6)	0	0	0	0	0
Target figure: Number of ceases reported in Table 6)	0	0	0	0	0

TABLE 8: Package Type (as at end of the period)	Qrt 1				Qrt 2			
	ASC	Private	Pending	Total	ASC	Private	Pending	Total
Alarm / CAT only package	0	0	0	0	0	0	0	0
Alarm plus telecare package	0	0	0	0	0	0	0	0
Carer Alert only	0	0	0	0	0	0	0	0
Total Packages in place (must equate to number of people supported at end of period - Table 6)	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0

TABLE 8: Package Type (as at end of the period)	Qrt 3				Qrt 4			
	ASC	Private	Pending	Total	ASC	Private	Pending	Total
Alarm / CAT only package	0	0	0	0	0	0	0	0
Alarm plus telecare package	0	0	0	0	0	0	0	0
Carer Alert only	0	0	0	0	0	0	0	0
Total Packages in place (must equate to number of people supported at end of period - Table 6)	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0

TABLE 9: Age of People Supported (as at end of the period)	As at End Qrt 1	As at End Qrt 2	As at End Qrt 3	As at End Qrt 4
Aged 18-64	0	0	0	0
Aged 65+	0	0	0	0
Total must equate to number of people supported at end of period	**0**	**0**	**0**	**0**
	0	*0*	*0*	*0*

Case Studies

Please attach to this monitoring form an anonymous case study during the reporting period detailing a service user and/or carer who has achieved a notable outcome with regards to your telecare service or supporting health agenda.

Please confirm if your data supporting the collection and submission of this performance data is available and auditable	

Consent to share information:
Information we collect from you and/or your organisation could be used for the purpose of research surveys or compilation/production of information for statutory reports. It will be disclosed to services within the Council and other stakeholders such as the NHS.
Any information if disclosed to our regulators, inspectors or the public will be anonymised.

I _____ consent for this information to be shared for the purpose of surveys or statutory reporting and to be disclosed within the guidelines described above.

Date consent given

APPENDIX D: Visual exhibits from macro level documentation

D1) 'The Balance of Care Model' in *Strategic Business Case Models for Telecare* (Department of Health, 2005a, p.8)
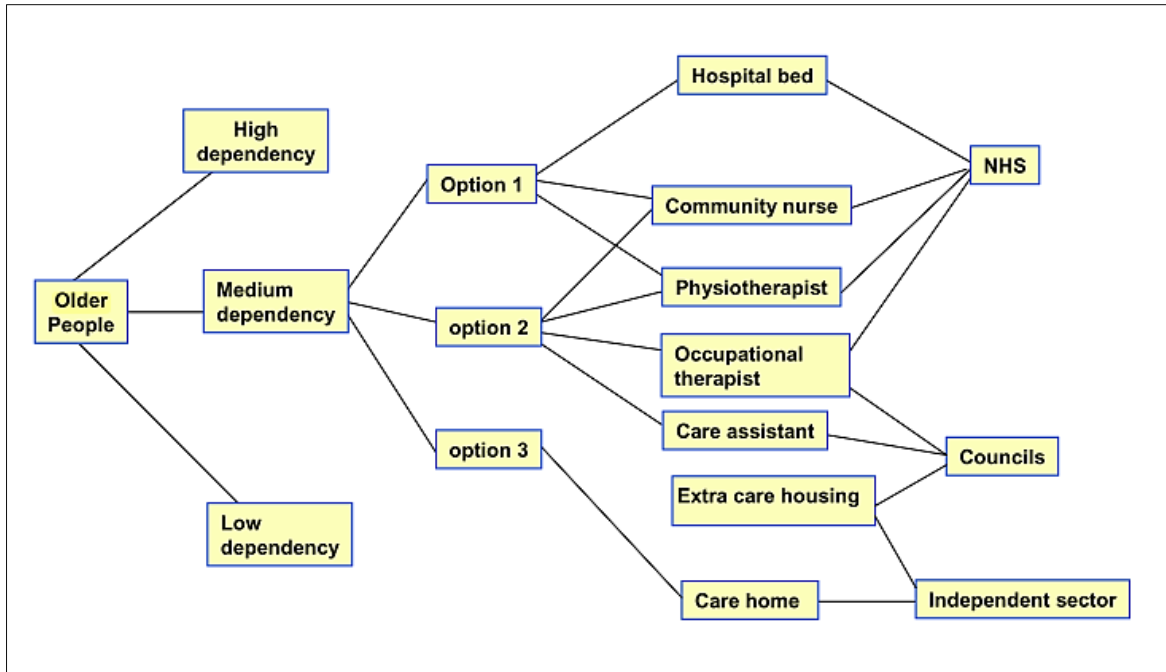
D2) From *Adult Social Care: Quality Matters* (Department of Health and Care Quality Commission, 2017a, p.10)

D3) From *Adult Social Care: Quality Matters* (Department of Health and Care Quality Commission, 2017a, p.8)

By following these principles and encouraging others to do the same, we will promote high-quality, person-centred care, and support services to enable people using services to say:

- "I feel in control and safe"
- "I have the information I need when I need it"
- "I have access to a range of support that helps me live my life"
- "I am in control of my support, in my own way"
- "I have considerate support delivered by competent staff"
- "I can decide the kind of support I need"

Source: Think Local Act Personal (TLAP)

D4) 'What person-centred care looks like for people' in *Adult Social Care: Quality Matters –Easy Read version* (Department of Health & Care Quality Commission, 2017b, p.3-4)

For people who use services, care that is person-centred must focus on what matters most to them, their families and carers, including those who may not have families to support them. Care services should make sure that they:

- Are safe: people are protected from harm, neglect and abuse wherever possible and can take positive risks. When mistakes happen, lessons are learned and services improve.

- Are effective: People's care is based on what we know is good, and helps them to enjoy a good quality of life.

- Give people a positive experience by being:

    - caring: staff treat people with compassion, dignity and respect

    - responsive: services meet people's different needs and help them make as many decisions as possible about their own care and the way that care is planned for everyone.

D5) 'Putting People First approach' in *Prioritising Need in the Context of Putting People First: A whole system approach to eligibility for social care* (Department of Health, 2010, p.37)
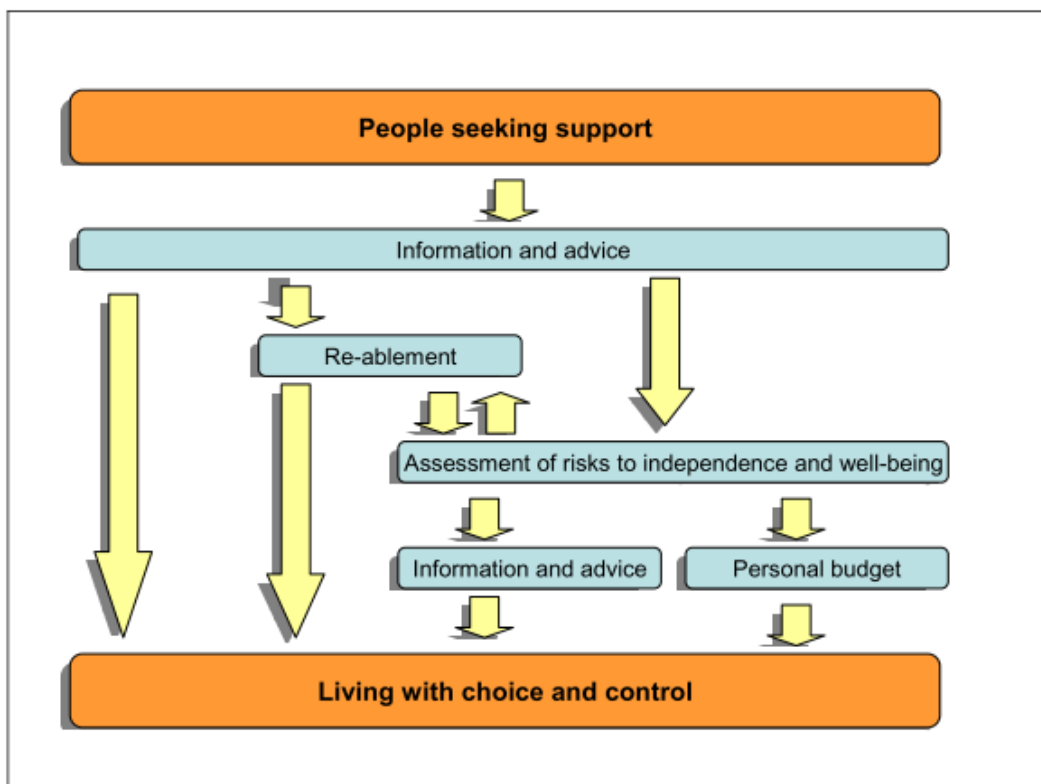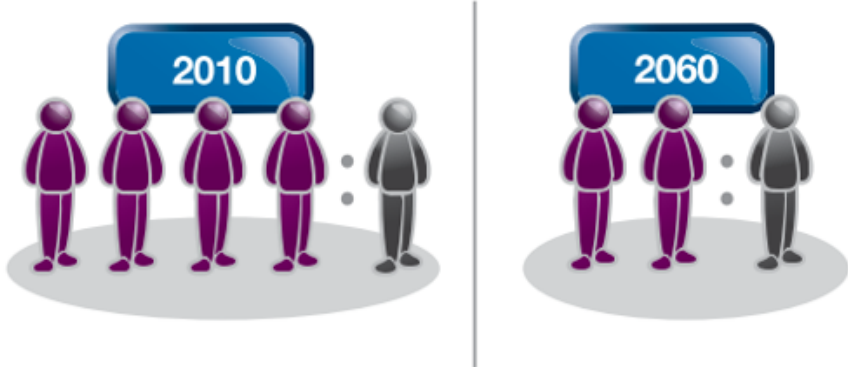
D6) From *Building the National Care Service* (HM Government, 2010, p.117)

> "I feel the service user must be the person to decide what they get and how they choose to use it."
>
> Public response to the Consultation

D7) From *Building the National Care Service* (HM Government, 2010, p.127-8)

We believe that a system funded predominantly through increased taxation for working-age adults (such as income tax or National Insurance) would place a large burden on the working-age population – and this burden would increase significantly over time as the proportion of working-age people decreases, and the number of older people grows.

2010   **2060**

We know that, today, there are around four people under 65 for every person over 65. By 2060, this ratio will have changed dramatically, with just two people under 65 for every person aged over 65.

We also think that this solution is, in the long term, unfair between generations. The majority of people to benefit from a fully tax-funded system would be older people, and yet it is working-age adults who would face the largest burden in paying for it. We think that it is fairer to have a more targeted system to bring additional funding into the care and support system. We do appreciate that not all older people are well-off, but according to data from the Office for National Statistics, those aged between 65 and 74 are the second wealthiest age group in Britain, with an average total household wealth of £284,500, excluding private pension wealth. Those aged between 75 and 84 have an average of £235,000, excluding private pensions.[6] By contrast, many younger people have significant debts from mortgages or student loans.

D8) From *Caring for Our Future: Reforming Care and Support (Easy Read version)* (HM Government, 2012b, p.2)

Most importantly, we want to help people:

- to be more **independent**

- to have choice and control over their care and support

- to live their lives in the way they want

D9) From *Caring for Our Future: Reforming Care and Support* (HM Government, 2012a, p.28)

Telecare supporting independence[32]

Mr Montague was a 47-year-old man who had experienced serious epileptic fits over a long period of time. This affected his mental capacity, especially his short-term memory. His epilepsy was managed by medication but this left him drowsy. Following the installation of a telecare system, he felt enabled to move from shared supported housing to a single tenancy where he could live more independently. Unfortunately, Mr Montague had a bad accident, but he was wearing his falls alarm so the rapid response minimised the consequences of his fall.

D10)   From *Our Health, Our Care, Our Say: A New Direction for Community Services*
(Department of Health, 2006, p.62)

CASE STUDY

Innovative GP services

The James Wigg Practice in Kentish Town – an inner-city London neighbourhood with high levels of disadvantage and health inequalities – is demonstrating the range of services that can be provided by primary care. The practice has GPs and nurses, of course, but it offers so much more.

Visiting specialists include an alcohol counsellor, a drug counsellor, an adult psychologist and psychiatrist, an ophthalmologist and a rheumatologist. Clinics are run by practice nurses for many ongoing conditions, including diabetes, asthma, hypertension and quitting smoking.

The practice makes extensive use of information techology. This means that patients can order repeat prescriptions using the internet. This emphasis on information technology has led to the practice being awarded beacon status. Patients can also conduct telephone consultations with doctors if they need advice or want to ascertain if they need to make an appointment.

D11)   From *Building Telecare in England* (Department of Health, 2005b, p.9)

> ## Case Study 1
>
> Mrs A has dementia and was starting to forget to turn off the gas when cooking. She had a gas detector installed, with an automatic shut off valve when gas was detected in the air. This enabled Mrs A to stay in her own home, and still cook for herself.
>
> In time, a movement detector was added. It can differentiate between her opening the door to retrieve the milk delivery and when she opens the door and leaves the flat. Carers are not, therefore, alerted every time the door opens, but can intervene if appropriate and help if she leaves the house on her own.

D12)   From *Building Telecare in England* (Department of Health, 2005b, p.9)

> ## Case Study 2
>
> Mrs B has a history of falling. Following discharge from hospital she was provided with a basic telecare package that included a bed pressure sensor that could detect when she left the bed during the night and turned on the lighting to her bathroom. It would then trigger an alarm if she did not return to bed within an agreed time.
>
> The package was programmed to record how many times Mrs B left her bed during the night. A few weeks after it was installed it was noticed at the control centre that Mrs B's nocturnal visits to the bathroom had increased significantly over a three day period. They alerted a care professional and Mrs B was diagnosed with a urinary tract infection which was then quickly treated enabling a full and quick recovery.

D13)   From *Building Telecare in England* (Department of Health, 2005b, p.11)

Case Study 3: Telecare supporting people with dementia

One project aims to support the independence of people with dementia by using technology to compensate for disabilities arising from dementia.

Referrals to the project can be made by a social or health care professional, and a full assessment is undertaken, to identify technology tailored to meet specific needs. The project worker also has responsibility for obtaining and arranging for the installation of this technology, and liaising with the local control centre who co-ordinate any social response.

Risk management is a major feature of the project, for example, technology that can detect the presence of gas and isolate the supply to a stove or fire that may have been left on unlit, and an alert can be raised. This means people with dementia can continue to cook their own meals.

Key findings were that people without telecare were four times more likely to leave the community for hospital or residential care over the 21 month evaluation period. The equivalent cost saving was £1.5 million over the 21 months.

D14)   From *Building Telecare in England* (Department of Health, 2005b, p.11)

Case Study 4: Telecare to support people with Long Term Conditions

This project is part of the overall Long Term Conditions strategy and part of the local assistive technology programme, a joint health and social care initiative. The service which is a health project is situated in the council alarm service and is co-ordinated by a nurse based in the call centre. The project aims to help individuals with long term conditions to:

- Self manage and increase treatment/medication compliance.

- Identify earlier than currently possible when patients' conditions deteriorate, thus averting an acute exacerbation of their condition.

- Increase access to, and amount of, information readily available to healthcare professionals.

- Reduce the risk of individuals on the project becoming 'Intensive Service Users'.

25 'suites of equipment' are available and are being used for as many people as possible over the first year. People will be on the service for 30–60 days in order that they becoming self-managing.

D15)   From *Building Telecare in England* (Department of Health, 2005b, p.12)

Case Study 5: Telecare to support vulnerable adults

This project has an emphasis on using technology to improve the lives of the most vulnerable in society. The council has taken a flexible approach so that health and social care professionals can refer people to the project. To be eligible, the case has to meet one of a number of national objectives e.g. falls prevention, supporting carers, keeping people in their own homes for longer, and preventing delayed discharges. The project initially began in one area, but is now being rolled out to the rest of the borough.

D16)   From *Building Telecare in England* (Department of Health, 2005b, p.12)

Case Study 6: Telecare as part of Intermediate Care

A number of authorities use telecare as part of their intermediate care service. On discharge from hospital people's homes are fitted with a basic telecare package. They also receive regular visits and calls from the community alarm service alongside rehabilitation and care from health and social care staff. The telecare equipment and service are provided free of charge for six weeks. It is a very popular part of the package and one which many individuals choose to retain.

D17)   From *Shaping the Future of Care Together* (HM Government 2009, p.52).

Case study: Re-ablement and telecare

After he had a stroke, Terence was at risk of falling and was not able to be at home safely on his own. Because he wanted to leave hospital, he was discharged two weeks early to a special flat with additional support. While he was there he received rehabilitation from the intermediate care team, but also built up his confidence to live independently and had a falls detector, bed sensor and gas detector. He returned to his own flat several weeks later and did not require further care.

D18) From *Whole Systems Demonstrators: An Overview of Telecare and Telehealth* (Department of Health, 2009, p.21)

Telecare Quotes

"Living on my own it's nice to know I can call for help if I feel ill during the night or fall."

"The alarm system allows me a lot more freedom and peace of mind."

"My family are pleased with Telecare. If I was to fall or needed help anytime they would be contacted straight away."

"It means that I don't have to go into a care home which I don't want to do. I want to stay in my own home as long as possible."

D19) From *Building the National Care Service* (HM Government, 2010, p.50)

Telecare in Newham[19]

Ex-nurse Jill, 77 years old, is registered blind and has a frail physique from childhood polio. As a result, she is prone to falls. Though she has a carer who comes twice a week to help her around the home, a concern for her is being at home alone if she has an accident with nobody there to help her. In 2008, she had two falls at home, which prompted her to seek an alternative solution.

Jill now has a pendant she can press if she needs assistance, a heat detector in the kitchen to warn of high temperatures, and a radio pull cord in the bathroom.

She said, "Because of my nursing experience I was thrilled to hear these things were being developed to help protect vulnerable people and help them maintain their dignity so they can feel like they are still capable of carrying on themselves. Now I can have a bath on my own. I feel safer and it helps me to retain my independence."

D20)   From *Building the National Care Service* (HM Government, 2010, p.90)

> "All care should be person centred and specific to the individual."
>
> Public response to the Consultation
>
>
> "Prevention, including telecare and re-ablement, will help to improve quality of life and will reduce support needs."
>
> Public response to the Consultation

D21)   'Types of Resources and Services' in *Prioritising Need In The Context of Putting People First: A Whole System Approach to Eligibility for Social Care* (Department of Health, 2010, p.17)
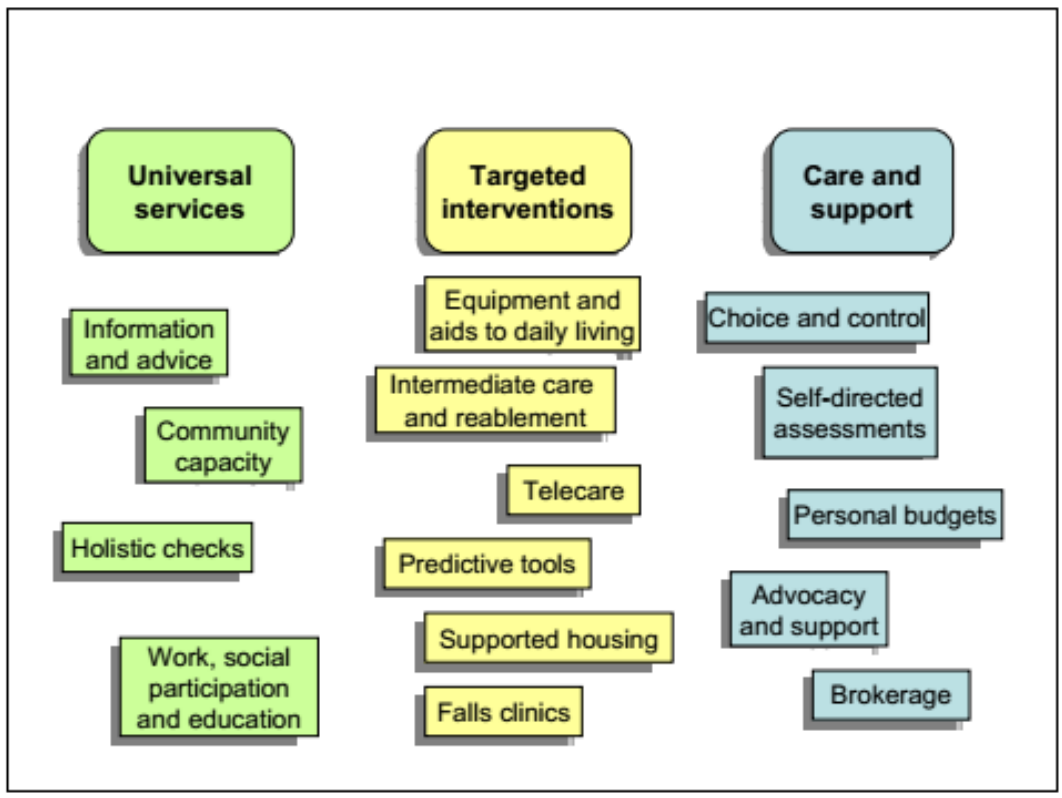
D22) From *NHS Long Term Conditions Flyer* (NHS England, 2012, p.1)

D23) From *Adult Social Care: Quality Matters* (Department of Health and Care Quality Commission, 2017a, p.5)

D24) From *Building the National Care Service* (HM Government, 2010, p.76)

Telecare gives greater independence

"Before telecare my family would come round and check on me every night. Having telecare has given me independence and my family peace of mind; they no longer worry about me or feel the need to check on me. I can also go out and play poker without them knowing!" said Steve, who uses telecare.

Submitted by **Tunstall** to Images of Care and Support

D25) 'Empowering and enabling individuals to take control' in *Our Health, Our Care, Our Say: A New Direction for Community Services* (Department of Health, 2006, p.111)

High % of professional care

High-risk cases

Professional care

Equally shared care

More complex cases

Self care

High % of self care

70–80% of the people with long-term conditions
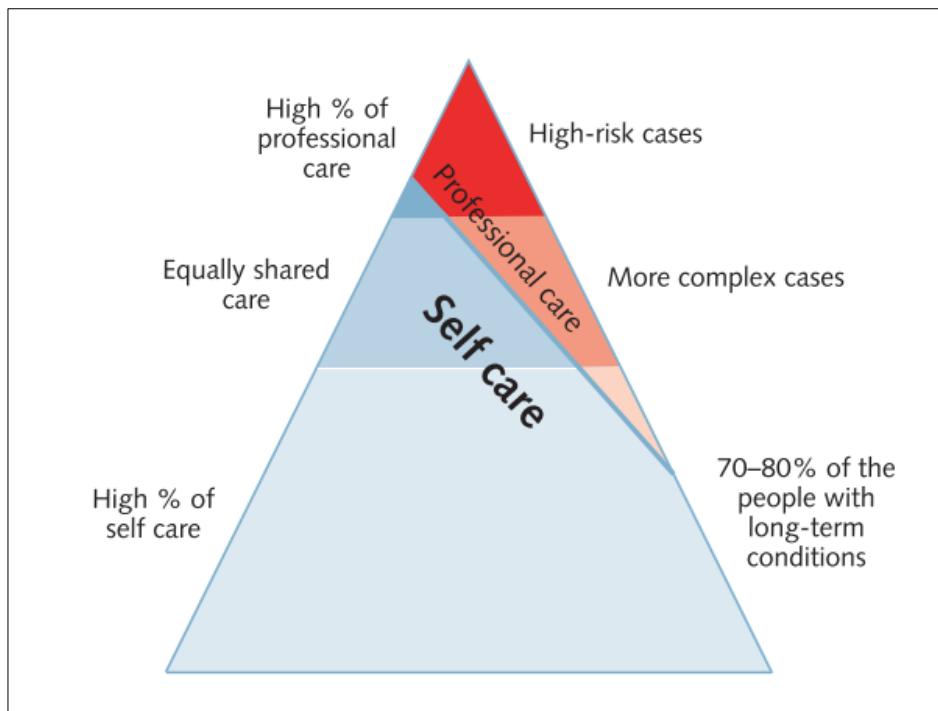
APPENDIX E: Interview quotes

The list of quotes from Section 5.2 (Meso and Micro Levels: Surrey Telecare)

[Quote 1]

"The lifelines are 'mix and match' – they can connect anything to the home unit. All you need is a telephone line in the house." (Operator MR, Mole Valley)

[Quote 2]

"It is interesting to get a snapshot of people's lives, learning about other people's perspectives of how they use the system, and bouncing ideas of each other. It is nothing personal that I prefer the changing rota of people, it is just different ways of working. In this circulation system, there is never a fall out." (Operator MR, Mole Valley)

[Quote 3]

"12 years ago, when the volume of the services were not as high, we were reading books in between two calls. But when in 2012, telecare came in, everything got busier, much busier. We used to log everything – write everything down and keep in massive folders. Now everything is electronic, which means more clarity, sharpness and speed." (Operator MR, Mole Valley)

[Quote 4]

"The more information, the better the calls can be handled at the centre." (Telecare Service Manager, Mole Valley)

[Quote 5]

{How are VIMs decided?} "The operators know what they want to see and decide what to put there. Complete medical data clutters the space; so specific points are added instead. They can also access the history to see what they need." (Telecare Service Manager, Mole Valley)

[Quote 6]

"A year ago [in 2013], it was different, and we could reach calls from 7 years ago if the client had been on the system for that long." (Telecare Service Manager, Mole Valley)

[Quote 7]

"Each call is an emergency, until you find otherwise. We answer each call with urgency and as quickly as possible within our capacity." (Operator IA, Mole Valley)

[Quote 8]

"The more we use the system, the more we can suggest points for improvement. The system holds information in a sensible manner and has quite a lot of features. But system awareness is the priority over system improvement." (Operator IA, Mole Valley)

[Quote 9]

"Having microphones on the pendants would be very quick and easy. This would be extra beneficial to let the client know that the help is coming, when they have an issue in the garden, outside their home. If they have fallen far away, the call centre cannot get much information because of not being able to hear them. Also, if those clients with no speech had had a pendant with 2 different tones [to answer yes and no], that would have been much better." (Operator MR, Mole Valley)

[Quote 10]

"Total Calls: 156,278
% of Calls accepted within 30 secs: 94.05
% of Calls accepted within 60 secs: 98.16
% of Calls accepted within 180 secs: 99.85

Telecare customer satisfaction: 98.4%"

[Quote 11]

"We are partners and competitors at the same time." (Community services manager, Runnymede. About Mole Valley).

[Quote 12]

"% of Calls accepted within 60 secs: 99.91
% of Calls accepted within 180 secs: 99.99

Complaints response: 5 working days (max)

User satisfaction rates
>*-happy with the quality of service received from the centre: 100%*
>*- happy with the speed their call was responded to: 100%*
>*- felt that Careline represented value for money: 83.6%"*

[Quote 13]

"If someone is not using it, then there is no value there. Or if they have a fall and want help, friendliness is not the most important factor. The more important questions would be: When you were using the telecare service, what were the circumstances? <u>Therefore</u>, were you happy of the response? <u>Therefore</u>, was it good value for money?" (Community services manager, Runnymede. Emphasis added by the interviewee)

[Quote 14]

"The version changes are almost always locally led, but if the central government comes up with a new set of priorities in a specific context, then we have to comply with the national policy change. It does not happen very often, fortunately, as there is a huge amount of procedures." (Community services manager, Runnymede)

[Quote 15]

"Care Call gives another level of reassurance to residents and to the community." (Community Alarms and Telecare supervisor, Runnymede)

[Quote 16]

"The ethos is: respond quickly, respond as an emergency, and then scale down the response from that red level of alert. It is much easier to de-escalate then escalate." (Community Services Manager, Runnymede)

[Quote 17]

"When a call is taken by an operator, we always assume it is taken with the correct decision." (Community Alarms and Telecare supervisor, Runnymede)

[Quote 18]

"However, if it doesn't work in less than 1 percent of 1 percent, we are still prepared to look at it and make subtle changes to that context when we can. Because if we see a benefit why wouldn't we offer it? We are also happy not to make any changes, because our procedures and protocols are very resilient. When the managers give their teams the empowerment to make the correct choices, and if the customers believe they are not – but the investigation says they actually were [51] – then, we would explain to the customer why we believe the choice was correct." (Community Services Manager, Runnymede)

[Quote 19]

"Understanding the local needs of the individual from a perspective of a local person, gives Runnymede's operators an insight that a remote team cannot give in the same way." (Community Alarms and Telecare supervisor, Runnymede)

[Quote 20]

"People are now aware that there is more support out there, and go to local councils to ask questions. In the last twelve months, these changes have been observed. At the moment, we are still dealing with some old school users, and sometimes it is hard to get stuff in people's properties. The 'I am not old' resistance sort of thing." (Community Alarms and Telecare Supervisor, Runnymede)

[Quote 21]

"However, I truly believe that the next generation and two generations coming through will have less resistance because they have grown with it, and are more aware. They expect more and demand more, so they will go looking for it. Certainly, in the next ten years, there will be a big change in the demand of these support services, because people would want safer homes. It will grow. It will be a <u>new tradition</u>." (Community Services Manager, Runnymede. Emphasis added by the interviewee)

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[51] All records at the centre are recorded to be referred to in case of complaints.

[Quote 22]

"Even though there is rich data coming from the monitoring centres, most data are 'dumbed down' due to politics" (Project Officer for Adult Social Care Policy and Strategy, Surrey County Council)

[Quote 23]

"We don't commission telecare as such. It is only a gentleman's agreement; a partnership between boroughs and councils." (Assistant Senior Manager - Commissioning Adult Social Care and Telecare Lead, Surrey County Council)

[Quote 24]

"The reduced form tracks referrals (brand new people), and the first piece of telecare equipment that are added on the community alarms (existing people). We cannot collect all the information such as dropouts, because it would turn into the BEAST again, with all the details. This needs to be a smaller form, and easier to fill each quarter." (Business intelligence Consultant, Surrey County Council)

[Quote 25]

"Surrey Fire and Rescue Service Response teams have recorded the follow 'value added' by the service during its pilot phase year:

- *On 30 occasions - defective smoke detectors/alarms have been replaced.*
- *On 20 occasions - installed smoke detectors/alarms where there were none present.*
- *On 6 occasions - reported our concerns for the occupier's welfare to Adult Social Care.*
- *On one occasion - identified a previously unreported kitchen fire.*
- *A visual Home Fire Safety Check is carried out at all visits.*
- *Reported to Adult Social Care poor practises by regular attending carers.*
- *Security advice to service users.*
- *Assistance to the ambulance service when required."*

[Quote 26]

"It makes a difference to fire fighters too, because when they are not putting out a fire they help the community in other ways, and they like it." (Business Intelligence Consultant, Surrey County Council)

APPENDIX F: References of all case study documents

The table below shows a complete list of all public and fieldwork documents (a & b), which were collected and used as sources in the Findings chapter. It also reflects which key documents were used in the data thematisation process (c & d). The table is split into four parts:

a) Macro level documents

b) Meso level documents

c) Key texts whose forewords have been coded

d) Documents whose illustrations have been coded

Document group	References
a) Macro level documents **(Health and social care publications of Government, Department of Health, and industry bodies, etc.)**	1. Anchor Trust. (1999). Using Telecare: The Experiences and Expectations of Older People. 2. Centre for Policy on Ageing. (2014). The potential impact of new technologies, (July), 1–74. Retrieved from http://www.ageuk.org.uk/professionals/knowledge-hub-evidence-statistics/evidence-reviews/cpa-review-of-social-care/ 3. Communities and Local Government Committee. (2017). Adult social care: Ninth Report of Session 2016–17. House of Commons. Retrieved from https://www.publications.parliament.uk/pa/cm201617/cmselect/cmcomloc/1103/1103.pdf 4. CSIP. (2005). Telecare Implementation Guide. 5. Department of Health. (1998). Modernising Social Services [The National Archives]. London. 6. Department of Health. (2005a). Strategic Business Case Models for Telecare, (July). 7. Department of Health. (2005b). Building Telecare in England. 8. Department of Health. (2005c). Independence, Well-being and Choice. 9. Department of Health. (2006). Our health, our care, our say: a new direction for community services. The Stationery Office. 10. Department of Health. (2009). Whole Systems Demonstrators: An Overview of Telecare and Telehealth. London. Retrieved from http://www.housingcare.org/information/detail-2578-quality-choice-for-older-peoples-housing-strategic-fram.aspx 11. Department of Health. (2010). A Vision for Adult Social Care. Retrieved from https://www.gov.uk/government/publications/lac-dh-2010-7-the-vision-for-adult-social-care-and-supporting-documents

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d) Documents whose illustrations have been coded	1. Department of Health. (2005). Strategic Business Case Models for Telecare, (July). 2. Department of Health. (2005b). Building Telecare in England. 3. Department of Health. (2006). Our health, our care, our say: a new direction for community services. The Stationery Office. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/272238/6737.pdf 4. Department of Health. (2009). Whole Systems Demonstrators: An Overview of Telecare and Telehealth. London. Retrieved from http://www.housingcare.org/information/detail-2578-quality-choice-for-older-peoples-housing-strategic-fram.aspx 5. Department of Health. (2010). Prioritising need in the context of Putting People First: A whole system approach to eligibility for social care - Guidance on Eligibility Criteria for Adult Social Care, England 2010. http://doi.org/10.1375/anft.29.4.224

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