# 2 A general review of old age and telecare

**Abstract**

This chapter starts with the introduction of the premises upon which the problematisations of old age were built, and which narratives of old age are produced and sustained. Three *grand discourses* of old age historically exist: 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 homogeneous, financially secure, and powerful consumers; and (3) managerialism in social work, which perceives older people in terms of risk. The chapter also reflects upon telecare technologies, their relation to older people, and different approaches used in telecare research. While doing this, it introduces analytical tools, which make the analysis of government policies possible in the next chapters, and contextualises Foucault's *modes of objectification* to guide the analysis.

This chapter starts with the introduction of the premises upon which the problematisations of old age were built, and which narratives of old age are produced and sustained. Then, I reflect upon telecare technologies, their relation to older people, and different approaches used in telecare research. And finally, I introduce my analytical 'toolbox', which will make the analysis of government policies possible.

## Ageing and old age

### A brief history of old age in Britain

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 was 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' (Beck, 2007; Gilleard and Higgs, 2014) 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 the 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 the state financial distress. 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 the 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 healthcare 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).

## The welfare state and old age

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 healthcare 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 United Kingdom, 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[1] 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 groups such as older people, and in so doing were breaking the 'intergenerational contract'[2] (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 towards the reconstruction of the identity of an older person. Whereas in the 1950s, retirement was seen as an impairment to mental health, from the 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'[3] 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 (Phillipson, 1998; Biggs and Powell, 2001).

Even though during the Thatcher and post-Thatcher years, the welfare state expenditures had grown, the scope of this spending 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 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 the 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 the 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 judgement (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 destabilisation of old age (Phillipson, 1998). The unravelling of retirement has historically also been focussed 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.

## 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.[4]

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 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 focusses 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 debatable 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 focussed 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 twentieth 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,[5] 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 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.

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 assumptions taken for granted 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.

## Problematisation of old age

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, and 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 knowledge 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 homogeneous, 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 and welfare, and a drain on 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). Professionalisation 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 the 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 the 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 towards 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 (Estes and Linkins, 1997; Biggs and Powell, 2001).

This means that managerial power can have an impact on old age identities through the care policies of the state and the practices of social service institutions. 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).

**Summary**

I have reviewed the construction of old age through the knowledge production of sciences and the state. The grand discourses that problematise old age are given particular emphasis. These narratives can be summarised as follows:

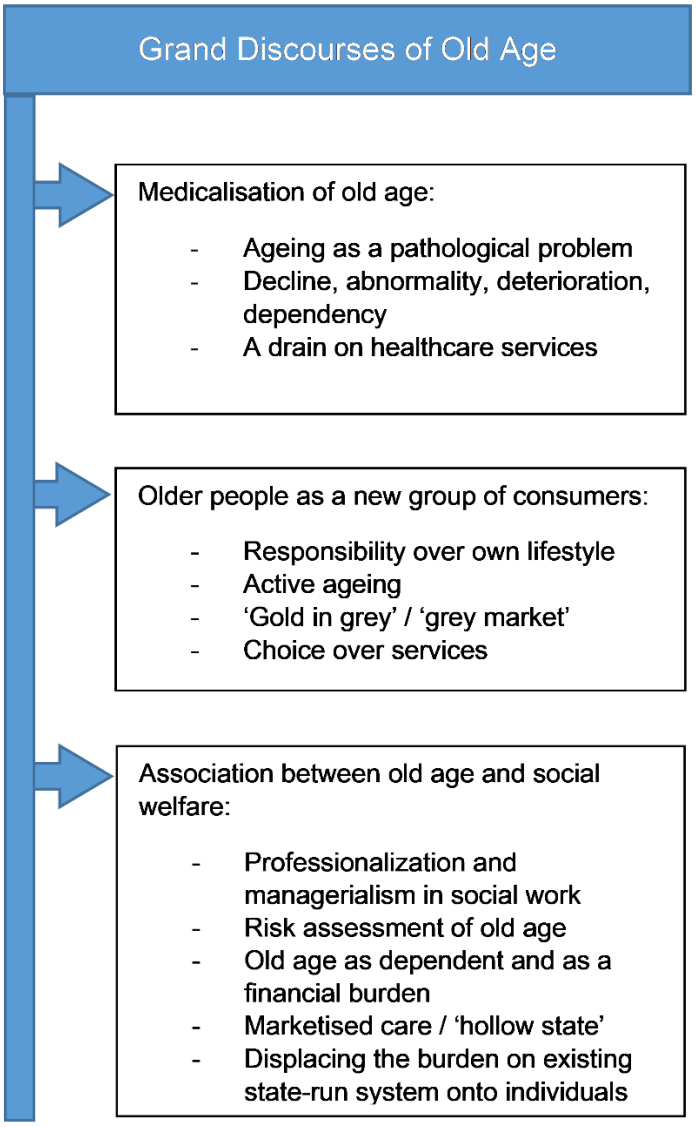


Figure 2.1 Grand discourses of old age (Own illustration, 2018).

These grand narratives form the basis of the analysis to be undertaken in this book. My aim is to: (1) explore the enactments or alterations of the grand discourses of old age within the domain of telecare information systems (IS) and (2) examine the effects that the grand discourses and other discourses of old age have on the identity of old age. The next section will review research conducted on social care and telecare technologies, because telecare technologies in the UK mainly target the ageing population, and the studies of telecare explicitly or implicitly address the concerns of old age.

## Telecare technologies in the United Kingdom

In the late 1990s, the UK government directed their initiatives towards 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 healthcare, 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 50 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 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.

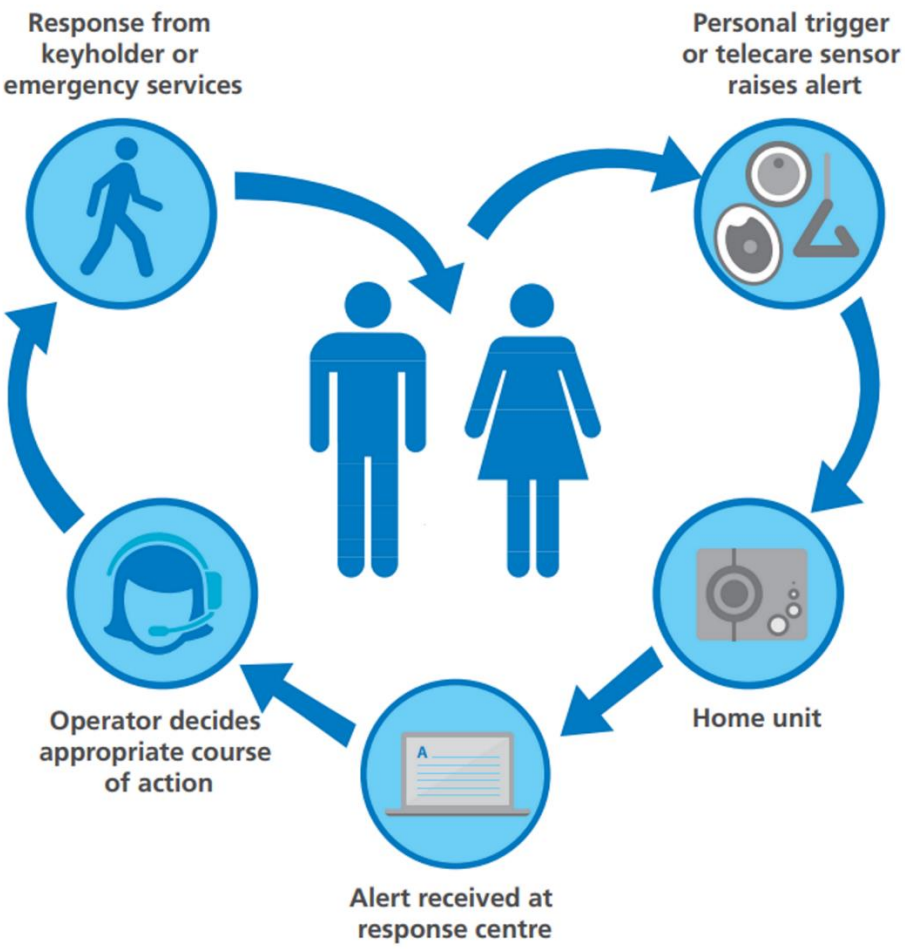


Figure 2.2 How telecare works. The image is from NHS England's 'NHS Long Term Conditions Flyer' (2012, p. 2). Licensed under the Open Government Licence for Public Sector Information v3.0 – http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/.

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, 2013). 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 of 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 IS: 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.

Telecare initiatives in search of 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 recent 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 two-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 (Sanders et al., 2012; Cartwright et al., 2013; Henderson et al., 2013, 2014; Roehr, 2013).

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. In 2012, approximately 1.7 million people were using telecare services in the UK, yet it was estimated than more than four million people were potential telecare users in England alone (Carers UK, 2012).

Currently, several councils in the UK provide telecare services for their citizens. Telecare systems are not centralised at a national level; a council’s own telecare services operate separately from the services in other boroughs, cities, or counties (unless specific partnerships have been created between them). A few examples of local telecare initiatives introduced by the councils are: *Care Connect* by Durham County Council, *Surrey Telecare* by Surrey County Council, *Bristol Careline* by Bristol City Council, *Aberdeenshire Lifeline* by Aberdeenshire Council, and *CareLink Plus* by Brighton & Hove City Council. To access these services, older people are assessed by the social care teams of the councils. Usually, the equipment provided by the council is free; however there is a fee charged for the telecare monitoring services offered, for which the service users are financially assessed by the council.

It has also been more common for the private providers of telecare services, such as the company Telecare Choice, to operate in various areas of the UK. Some councils work together with private service providers or promote private services to their residents. To illustrate, on their official websites, Dorset Council and Leicestershire County Council recommend the services of Telecare Choice as one of the choices for care in the area (Dorset Council, 2019; Leicestershire County Council, 2019). Another kind of partnership that occurs is the agreement made between councils and technology providers, such as Tunstall Healthcare UK.[6] In 2014, Shropshire Council announced that they are committed to working in a collaborative partnership with Tunstall (BBH, 2014); and in 2015, Lancashire County Council appointed Tunstall as a 'development partner' to guide and shape the delivery of adult social care telecare services in the county (Tunstall, 2018). It is evident that such collaborations with industry gathered momentum in past decade.

## Sociological and Foucauldian approaches in old age and care research

Evidence-based medicine (EBM), grounded in a positivist perspective, is considered to be equivalent to 'good medicine', and as such, it has been 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.

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 (Steventon et al., 2012, 2013; Cartwright et al., 2013; Henderson et al., 2013, 2014; Hirani 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 well-being. 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), which aims to reach three 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.

Although systematic review[7] and meta-analysis[8] have been dominant in health and social care research in the UK, there are various studies that focussed 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).

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 'responsibilisation' 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, p. 57) 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, p. 58), 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. 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. 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.

From 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 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.

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 well-being; 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 care.

Information Systems (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 book to adopt such a lens. My aim is 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. These forms of knowledge and *ways of being* are historically variable, and that a specific version of old age identity is being constituted in the presence of telecare technologies.

## Analytical toolbox

The analysis of government publications in this book uses a certain lens that is made up of several analytical tools: critical theory, discourse analysis, genealogical method, and Foucauldian *modes of objectification*, alongside such concepts as discourse, governmentality, identity, and power/knowledge. Telecare information systems (IS) make up a complex system composed of many intertwined technological, political, social, and economic elements. I placed a great

emphasis on Foucault's concepts and frameworks due to the applicability of these techniques for historical and genealogical investigation, power and discourse analysis, and formation of subjectivities/identities.

Using a combination of tools, I will investigate: (a) how governments and disciplines study, classify, divide, and regulate old age groups, and (b) how the identity of old age is constituted in ways that are linked with these techniques. These scientific classifications and dividing practices constitute the modes of objectification, which bring forward discussions of power/knowledge and governmentality.

## 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. 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 the 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 culturally pessimistic view of society, social scientists of the Frankfurt School, such as Habermas, Marcuse, and Fromm, produced work that contains positive, optimistic elements: their critical work studies 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) – focussed 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).

## Postmodernist approaches in critical information systems research

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 the 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 twentieth 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 (IS) 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 view technologies as not separate from society, hence from specific political or social systems, and see IS as historically evolving in alignment with other aspects of society (Feenberg, 2003). The application of critical theory in IS 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). Therefore, IS research attended the themes of power, domination, conflict, contradictions, and the hidden mechanisms and structures that engender domination (Cecez-Kecmanovic, 2005).

Habermas' work was seen as the most promising in critical IS 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. 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*. 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. 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 focussing on the use of language/discourses.

In the early 2000s, it was recognised that an eclectic critical view, which encompasses Foucauldian ideas, can address power relations, context, and asymmetries in technological innovations on a global scale (Walsham, 2001; Avgerou, 2002; McGrath, 2005). Several pluralistic approaches started emerging out of an amalgamation of critical theory and poststructuralist theories: actor network theory in IS (Klecun, 2004), critical discourse analysis (Pozzebon, 2004; Alvarez, 2005), the postmodernist Machiavellian view of power (Silva, 2005), Foucauldian genealogy and his concept of power (Klecun, 2004; Avgerou and McGrath, 2005; Humphreys, 2006; Peszynski and

Corbitt, 2006; Willcocks, 2006), the study of Feenberg's postmodernist work (Klecun, 2005), the social shaping of technology, and the social construction of technology (Mitev, 2005).

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 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 IS 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. Klecun (2005) states that telehealth is societally legitimised through policy documents, more specifically through the image of an 'empowered population'; these national policies embed technical rationality about the IS and portray a simplistic view of the technologies.

## Foucauldian research on technologies

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's (2004) assertion that the behavioural and social technologies are encoded within the material technologies create powerful premises for the use of Foucauldian approaches in the study of IS.

Concepts such as knowledge and power, 'regimes of truth',[9] and the net-like organisation of power and truth can be considered key to Foucauldian 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.

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*[10] metaphor that is deeply rooted in normalised practices. In this regard, information technology (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 communications), while highlighting the work practices through which subordinates can be evaluated by their supervisors, but not vice versa.

Willcocks (2006) reflects that the growth of technological capabilities cannot be disconnected from the intensification of power relations, especially in an era of rising incursion of information and communications technologies (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 Foucauldian 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). What technology we have now 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.

## Discourse analysis

The study of discourses has been a key theme in the 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, that is, DA is not concerned with finding an underlying reality; the discursive level is its main interest. 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.

Overall, the empirical materials collected by the researcher – for example, documents – 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 (Alvesson and Sköldberg, 2009). 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 this arena, the focus of interpretation is not directed towards straightforward patterns; instead, vagueness, contradictions, and nuances are noted. Inconsistencies and variations become as interesting as consistencies.

## 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's objective 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 the model, 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). This framework can be used 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 focusses 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) take 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.

(p. 258)

We can define social power in terms of discipline and control, and 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, 2001).

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. It is fitting to be informed about the principles of certain CDA approaches while approaching the old age topic.

## Foucauldian discourse analysis

Foucauldian Discourse Analysis consists of some specific components that are worth being elaborated on. Based on Diaz-Bone et al.'s analysis (2007), the field of Foucauldian discourse analysis is not an internationally integrated field. However, in the studies they have identified that employ the Foucauldian 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 focusses on dominance and social power that is held by certain groups, elites, or institutions, allowing them to sustain social inequalities. A discourse analysis informed by the Foucauldian notion of power is more conducive to the critical enquiry undertaken in this book.

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.

Foucault describes *discourse* as a certain 'way of speaking' (Foucault, 1969), and 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). 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. We cannot divide the 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 is the telecare technology and their practice in connection with older people. My focus in this book is not to detect the coercive ways with which the government is implementing their IT strategies; the emphasis is rather on those discourses that are formed through various power/knowledge mechanisms of governmentality. It is important to pay attention to those old age discourses that might be enacted or undergoing changes in a new *context*, in the presence of telecare technologies.

## The Foucauldian toolbox

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: first, 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). Second, 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).

Powell and Biggs (2003) reflect on the methodological tools of archaeology and genealogy as fundamental to Foucauldian research. They 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.

## The genealogical method

In its approach to discourse, genealogy distinguishes itself from archaeology because it focusses 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.

"Genealogy", as Foucault states,

> 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. (…) 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).

Foucault used discourse to analyse diversity in configurations, assumptions, claims, categories, and so on; it 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. This why '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. 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 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's 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 sections focus 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.

## Subjectivity, identity, and human kinds

Subjectivity can be demarcated as a core concept to understand ageing (Powell and Biggs, 2004). Foucault's work focusses 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 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).

The production of subjectivity within normalising environments, such as clinics, is the exploration arena for Foucauldian analyses. One concept that is visible in the scholarly discussions of subjectivities is *identity*, such as the ageing identity that is used in this book. 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 focusses 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)

To illustrate a point, 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 through national policies. 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 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,[11] the truth that highlights the normalising effect 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 book. 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 book will refer to an *abstraction of an old age identity*, which is represented through the medium of telecare policies. I intently define *identity* to comprise the power/knowledge formations that impose a form of control structure upon old age subjects. The public texts 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*. Philosopher Ian 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). He 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 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 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. The ageing identity, which is central to this book, also undergoes looping effects; therefore it is inevitably a human kind. The reason why this concept is important is because the identity formation does not occur either just by external (to the

individual) knowledge formation or just by self-knowledge. It is still essential to be reminded that the knowledge itself is not just the product of the state. The social positioning of a certain *kind* of people through governmental policies can generate looping effects. This is because people classified interact with the classifications, and thus, by implication we have all the more reason to reveal these classifications.

## 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 enquiry 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: for example, 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*[12] 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 and gerontology that arose in the late nineteenth 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 the idea that one's ideas about oneself are merely the recurring consequences of the self-subjectification practices of Western society. Classification and 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 focusses on the analyses of the techniques that are used to problematise ageing subjects, rather than focussing 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).

This book takes *scientific classifications* and *dividing practices* (two of the modes) as the basis of analysis, through which conclusions can be drawn on old age identity. This is largely because my principal investigation is about how governments and disciplines classify, study, divide, and regulate old age groups. Therefore, the 'technologies of regulation and collective control' (Powell and Biggs, 2000) will be given a preference, and the construction of old age identity will be investigated through the lens of public policies. Policies form discursive systems of power/knowledge through which discourses are enacted and normalised. Revealing the explicit and implicit ways in which they position older people will outline a constructed old age identity.

## 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 eighteenth- to the nineteenth-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 and unhealthy, normal and pathological, and living and 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 an impact on biological health, and it enables the state to govern individuals by influencing their biological frameworks. For example, the aged body became the centre of social and scientific discourses on old age in the nineteenth 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 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) 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 at 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 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, hierarchising, 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 *governmentalisation 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 governmentalisation 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 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 (Fukuyama, 1996; Rose, 1999). 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 require individuals to manage their own

access to social services (Maskovsky, 2000). Therefore, the governmentalisation 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).

Problematising all power-knowledge relationships was a consciously taken decision 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). 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"[13] (Foucault, 1982, p. 781), and against the privileges of knowledge. 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.

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).

## Key remarks

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 have created a so-called 'hollow state'[14] (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 knowledge 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 three 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

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 well-being 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 IS 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 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 the functionalities of telecare, in various ways. In the next chapter, I will investigate the enactments and redefinitions of this knowledge, in the form of discourses of old age, in relation to telecare technologies.

The following list covers key concepts and constructs that were highlighted in this chapter.

**Table 2.1** List of key concepts and constructs

| Concept/construct | Definition |
|---|---|
| Discourse | A historically variable yet certain in context way of speaking or writing to specify how 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. |
| Governmentalisation/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, usually continuous over a specific time frame. |
| Human kind | Group of people about whom 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 book, identity refers to the abstraction of an identity, normalised and represented through policies. |
| 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 2019) 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. |

In light of the history of old age and its connections with telecare, we can divide the initial query "How is the identity of old age constituted in relation to telecare technologies?" into three refined questions:

Q1: Through which scientific classification practices do old age discourses surface in relation to telecare?

Q2: Through which dividing practices do old age discourses surface in relation to telecare?

Q3: How do social care policies enact and transform the grand narratives and the identity of old age?

Mapping out the scientific classifications and dividing practices will elaborate on the language that produces knowledge, enacts certain discourses, and socially positions individuals in certain ways. Then, the ageing discourses enacted and generated in relation to telecare will be linked to the current constructed identity of old age.

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[1] Indexation is when income payments are adjusted by means of a price index, which adjusts to inflation. Deindexation is when wages are no longer index-linked.

[2] Young and middle-aged population supporting older citizens.

[3] 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).

[4] After Jean-François Lyotard published his Postmodern Condition, there has been an ongoing discussion on the notion of modernity. Bonacker (2006) states that "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)" (p. 73).

[5] The systematic description of diseases.

[6] A technology company specialising in digital health and care solutions, mainly in telecare and telehealth.

[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).

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

[10] 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. The result is the creation of disciplinary power.

[11] 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 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)

[12] "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).

[13] "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).

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