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Accessing housing in a digital and ageing society: a human rights-based approach to new housing models for ageing well

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ABSTRACT

There is a gap in the understanding of the role of international human rights law regarding older persons' access to housing. Particularly in a context of growing automation and digitalisation of housing systems. This paper aims to address this gap by conducting an analysis of the nature and scope of older people's right to housing as deduced from the main treaties in the UN (ICESCR) and the Council of Europe (ECHR and ESC). Building on a theory of multiple housing rights, this paper provides insights into the meaning of a right for older adults to access housing in a digital society. International obligations are identified through an analysis based on a three-dimensional typology of barriers. Obligations concerning emerging digital barriers are also identified and analysed. These international mandates could inform new housing strategies and policies, ensuring that the integration of housing and technology in new housing models for ageing well does not compromise older people's human rights.

KEYWORDS: Public law; right to housing; access to housing; older people; digital society

Introduction

The world population has been ageing at a rapid pace since the second half of the twentieth century. According to the World Health Organisation, the number of people aged 60 years and older outnumbered children younger than 5 years in 2020 and, by 2030, one in six people will be aged 60 years or over (WHO, 2022). However, the demographic distribution of this ageing pattern is uneven across regions, reflecting economic, social and

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cultural contexts. While Europe's median age has grown by 14 years, Oceania's and Africa's have only increased by 5 and 1 years respectively (Ang, 2020).

Europe's ageing population may have important economic and social consequences in terms of resource distribution. The existence of sufficient means to ensure financial security and health for older persons is one of the main concerns in the European context. By 2100 the dependency ratio is estimated to increase from 32% to 57% (Fontana, 2022). This relationship between growth and the availability of resources has prompted a general debate on sustainable development. Demographic evolution should proceed in a manner that does not compromise human rights.

Accessing housing is, because of its centrality to human dignity, one of the core issues in this emerging scenario. Growing concerns about the realisation of the right to adequate housing among older persons have led the Independent Expert on the Enjoyment of All Human Rights by Older Persons to issue a specific report on *Older persons and the right to adequate housing* (A/77/239). The report addressed the persistence of discrimination against older people and the need for an adequate environment for ageing well. Adequacy and affordability of housing are major issues for a large proportion of older adults in many European countries who struggle to access housing. Empirical evidence shows that, for example, changes in housing costs in Germany between 1996 and 2017 have contributed to an increase in poverty among older people, especially those with outstanding mortgages, single-person households and people with migration backgrounds (Lozano Alcántara & Vogel, 2023).

The recognition and protection of older adults' human rights, albeit neglected for some time (Mégret, 2011) is a matter of growing concern among the literature (Chirwa & Rushwaya, 2019; Poffé, 2015; Sciubba, 2014). Recent contributions have aimed at systematising the international framework establishing older persons' right to housing (Gutterman, 2022a; Rodríguez-Pinzón & Martin, 2003). Some researchers have delved into the relevance of older people's human rights in urban planning and policy design (Díez Sastre et al., 2020). Others have investigated the protection of older persons' right to privacy and liberty in care homes with a special focus in the effects of the Covid-19 pandemic (Carter Ananda et al., 2021; De Albuquerque et al., 2022; Kesby, 2023; Morrison-Dayana, 2023; Nogueira López, 2021). However, fewer studies have considered other aspects of the right to housing, like access rights. There is still no comprehensive understanding of the state obligations to protect this dimension of older people's right to housing, particularly in a context of growing automation and digitalisation of society that could impact older people's adequate standard of living (Mikołajczyk, 2023).

The digital society is reshaping the way we access housing. There is evidence of an important process of digitalisation of European housing systems after the emergence of "digital platforms" and the breakthrough of new technologies such as the Internet of Things (Lappalainen & Federley, 2022). A digital and data-driven economic paradigm has been introduced

in the private sector opening space for the automated provision of housing related services. This new paradigm has also reached some of Europe's public administrations in the search for more efficiency. However, the substitution of the traditional face-to-face attendance by screens and digital portals has been sometimes identified as hindering access to welfare, including social housing, especially for those lacking basic digital literacy or found in a more vulnerable situation (Eubanks, 2018; Nogueira López, 2020).

Unfortunately, this process of accelerated technological transformation has not been accompanied by a corresponding digital literacy. According to the European Commission (2022) Digital Scoreboard data, only 53.9% of the EU population has at least basic overall digital skills. Among those aged 65–74, it is barely 25%. This raises important questions for the design of public policies concerning older people's access to housing which have not yet been addressed. What does this right mean for older people in the emerging digital society? To what extent are States bound to intervene in the digitalisation and automation of (public or private) housing provision activities?

This paper seeks to address these research questions through a human rights-based approach focused on the European context. The objective is twofold. Firstly, it aims to provide a better understanding of the meaning of an international right to access adequate housing for older persons by identifying clear international obligations to protect, respect and fulfil this right in the context of a digital society. Secondly, it aims to understand the extent to which this right is undermined by structural factors limiting older persons' access to housing. By defining and clarifying the normative framework and the corresponding international obligations, this paper seeks to contribute to the design of better policies and regulations. In other words, it seeks to contribute to exploring and defining new housing models for ageing in safe, affordable and adequate environments that respond to the actual needs of older persons.

To achieve these objectives, a combination of doctrinal and socio-legal methods is used. Firstly, the doctrinal method is used to analyse a collection of human rights sources. In particular, the main treaties establishing the right to adequate housing within the scope of the UN and the Council of Europe are examined and interpreted in line with the reports, decisions and conclusions of bodies monitoring the realisation of both the international right to housing and the rights of older adults. These interpretations are guided by Vols' conceptualisation of the right to housing as a bundle of "access", "occupancy" and "exit" rights (Vols, 2022, Vols & Stefan van Tongeren, 2024). Then, to understand better how this right works beyond the normative level, a three-dimensional typology of barriers to accessing housing is used to analyse from a legal perspective the empirical evidence on the challenges faced by older persons (Quintiá Pastrana & Vols, 2024). Building on this analysis, the international obligations concerning older persons' right to access to housing facing digital barriers are also identified following a doctrinal method informed by a socio-legal approach.

The structure of the paper is as follows: A clarification of key concepts used throughout this study is provided in [Section 2](#). The normative framework establishing older people's right to adequate housing is then systematised in [Section 3](#). The meaning of a right to access housing for older people is investigated in [Section 4](#). Firstly, older people's right to access to housing is conceptualised following Vols' theory of multiple housing rights (Vols & Stefan van Tongeren, 2024). A review of the main physical, human and systemic or institutional obstacles faced by older persons when accessing housing are also analysed (Quintiá Pastrana & Vols, 2024). Then, the extent to which the digitalisation relates to these barriers and the existence of "digital barriers" to the access of adequate housing is discussed. International obligations to protect, respect and fulfil older people's right to access to housing against barriers in an emergent digital context are systematised in [Section 5](#). Finally, some conclusions are provided.

Conceptual framework

This section provides an overview of the most relevant concepts used throughout this article. By defining each one up-front, we aim to establish the conceptual framework that informs this research's methodology and the theoretical lenses guiding the legal-doctrinal and legal empirical analysis.

Right to housing

Designates a legal framework defined by international human rights law and national constitutional law. It encompasses a series of international obligations for States to protect, respect and fulfil the right of individuals to access, occupy and exit housing (Quintiá Pastrana & Vols, 2024). Given the European focus of this research, these obligations are interpreted here following the jurisprudence of the UN Committee of Economic, Social and Cultural Rights (UN CESCR), the European Court of Human Rights (ECtHR) and the European Committee of Social Rights (ECSR).

Housing systems

Refer to the institutional, legal and socio-economic frameworks that structure the provision of housing in different national contexts (Kenna, 2010). Most European housing systems are "organised around markets with varying levels of direct provision or subsidy in socially or politically important areas" (Kenna, 2010). The right to housing directs these systems, ensuring that States comply with their international obligations regardless of the model of housing provision.

Home

This concept captures people's psychological and emotional links with the house they live in Hohmann (2013). It refers to the abstract space in which people develop their personality and intimate lives. It has been used as an analytical lens to examine housing as a space of interconnected interests (Fox O'Mahoney, 2013). As such, it connects housing with human dignity but also many other fundamental rights, including the right to privacy or the right to family life. The concept of home has also been used by the European Court of Human Rights referring to a "sufficient and continuing" link between a person and the house they inhabit (ECHR, *O'Rourke v. the United Kingdom*, 26 June 2006, App. No. 39022/97). Thus, the concept has been used as a conceptual lens to look at housing as a place where interconnected interests flowing from the "human relationship with home" converge.

Older persons

This article adopts the concept of older persons as articulated by the UN CESCR in its General Comment Number 6 (E/C.12/1996/16/Rev,1) and further developed by the UN Independent Expert on the enjoyment of all human rights by older persons (A/77/239). These human rights monitoring bodies have not provided a chronological delimitation of this concept, acknowledging the heterogeneity of realities than be captured under this term. Rather than a numerical threshold it is generally understood to refer to the many and varied experiences associated with the ageing process, in line with contemporary research (Teixeira da Silva et al., 2024). This term is preferred over other alternatives that have been criticised as "disrespectful and supportive of an inaccurate stereotype of frailty" (Falconer & O'Neill, 2007; Gutterman, 2022b) and hence is used here to reflect a rights-based understanding of these experiences. The term "older people" is also used interchangeably throughout this article, in line with specialised literature (Carter Ananda et al., 2021; De Albuquerque et al., 2022; Pirhonen et al., 2020; Sciubba, 2014).

Intersectionality

Originally developed by Kimberlé Crenshaw (1989) to understand how overlapping forms of discrimination intersect in the lives of black women, this concept has ever since used to "challenge both monolithic constructions of specific groups and their homogenization and stigmatization" (Côrte Real et al., 2025). Intersectionality is used in this article to understand how multiple and overlapping forms of discrimination shape older persons' access to housing. For example, older women, older migrants, or older persons with disabilities may face different barriers in the access to housing that are not simply the addition of their identities but the result of compounded configurations of discrimination.

A right to adequate housing “also for older persons”: insights from international human rights law

The right to adequate housing established in Art.11 of the International Covenant of Economic, Social and Cultural Rights (ICESCR) does not expressly mention older persons. However, the UN CESCR, tasked with monitoring the ICESCR, held a holistic interpretation of the right to housing in accordance with the right to equality and the prohibition of discrimination that paved the way for the protection of older persons. In its General Comment No. 4 (E/1992/2, 13 December 1991), the UN CESCR declared that everyone is “entitled to adequate housing regardless of age” and that “the enjoyment of this right must (...) not be subject to any form of discrimination”. Similarly, in its General Comment No. 7 (E/1992/2, 20 May 1997), the Committee stressed how “older persons (...) suffer disproportionately from the practice of forced eviction” and that States have additional obligations to take appropriate measures to ensure that “no form of discrimination is involved”.

The CESCR's focus on the right to housing of older persons came after a series of international summits and declarations adopted within the scope of the United Nations. The International Plan of Action on Ageing (A/CONF.113/31) adopted by the UN General Assembly in Vienna in 1982 (Vienna Plan), the UN Principles for Older Persons (A/RES/46/91) of 1991 and the International Plan of Action on Ageing adopted by the UN General Assembly in Madrid in 2002 (Madrid Plan) established a series of objectives and recommendations for a sustainable demographic evolution that addressed urban development, and the provision of housing adapted to the needs of older persons (Gutterman, 2022a). These declarations stressed the relevance of both suitable housing and liveable surroundings of physical, psychological and social interest to older people.¹ To this end, States should “help the aged to continue to live in their own homes as long as possible”,² by promoting the development of “age-integrated communities”,³ ensuring that “new urban spaces are free of barriers to mobility and access”,⁴ and improving the “availability of accessible and affordable transportation for older persons”.⁵ By establishing a series of authoritative interpretations of the right to adequate housing in connection with older persons, these documents have contributed to shape the concept of “ageing in place”, influencing the interpretations of other UN treaty bodies, like the CESCR and the Special Rapporteurs.

In connection to this, it is important to note that the Optional Protocol to the ICESCR establishing an individual complaint mechanism entered in force in 2013. This instrument allows citizens (called authors) to present individual cases (called communications) before the CESCR concerning violations of Art.11 ICESCR. So far, the CESCR has had the opportunity to discuss important elements of the right to adequate housing regarding the eviction of two older persons in the case *Lorne Joseph-Walter v. Spain*, (CESCR, 61/2018, E/C.12/70/D/61/2018, 23 November 21). The Committee

seems to take into account elements of ageing in place when it notes that “neither the judicial authorities nor the social services have sufficiently taken into account the disproportionate impact that a forced moving of house could have on particularly vulnerable persons ...(nor)... the fact that the author has lived in the same apartment for 25 years, has always fulfilled his contractual obligations and is now an older person with limited income who has strong social ties to his neighbourhood” (para. 12.4). Interestingly, in that case the Committee also interpreted that “in accordance with the principle of affordability, tenants should be protected by appropriate means against unreasonable rent levels or rent increases and against any undesirable effects that such legislation may have on vulnerable groups, such as older persons” (para. 11.6).

While initially concerned mainly with observations regarding intersectionality,⁶ the Special Rapporteur on the right to adequate housing has also been particularly vocal over these issues. They have denounced the situation of many older women, who often “do not have the legal empowerment, education or financial resources to defend their tenure”,⁷ or the older migrants, who “often lacking administrative or judicial remedies for their housing claims”.⁸ The Special Rapporteur, by addressing the situation of “care institutions which restricted or prohibited visits by family members” during the Covid-19 pandemic, has also contributed to clarifying the meaning of ageing in place by underlining that “a ‘home’ should allow for psychological well-being, irrespective of whether one resides alone, in a multigenerational setting or in a care institution”.⁹ Interestingly, they have also interpreted the relationship between older persons and housing from a property rights perspective, pointing out that “rental housing also provides a regular additional source of income for low-income small landlords, which can serve as a safety net against precarious employment or as a form of pension after retirement and old age”.¹⁰

Finally, it’s also worth noting the creation of an Independent Expert on the enjoyment of all human rights by older persons in 2013. Of particular interest is its recent report on the right to housing of older persons.¹¹ The Independent Expert has systematised in this document most of the recent developments on the matter, clarifying the meaning of the different components of the right to adequate housing in relation to older persons.¹² This document also includes a reference to “smart and digital solutions”, recognising the need to rely on technology to improve the living conditions of older persons while acknowledging that it “can also be a source of social exclusion”.¹³ The Independent Expert concludes that there is a need for States to adopt an “international legally binding instrument” to “close the identified protection gaps for older persons”.¹⁴

Within the scope of the Council of Europe two treaties are of interest to this study, the European Social Charter (ESC)—monitored by the European Committee of Social Rights (ECSR)—and the European Convention of Human Rights (ECHR)—monitored by the European Court of Human Rights (ECtHR). The right to adequate housing is only formally recognised

in the former. However, it is generally accepted that the ECtHR case law on the right to the “protection of a home” established in Art.8 ECHR have widely contributed to understanding essential elements of the right to housing (Hohmann, 2013). These elements are also interesting to interpret older persons’ right to access to housing.

The first mention to a right to housing for older persons in the Council of Europe was the “right of the elderly persons to social protection” recognised in art.4 of the 1988 Additional Protocol to the ESC. This provision established the “provision of housing suited” to older persons’ “needs and their state of health” or “adequate support for adapting their housing” to “enable elderly persons to choose their lifestyle freely and to lead independent lives in their familiar surroundings”. The exact phrasing was then incorporated in Art.23 to the revised ESC of 1996.

The ECSR has reminded the State Parties that they are “required to take the necessary actions to enable elderly persons to remain full members of the society, to lead independent lives in their familiar surroundings for as long as they wish and are able by means of provision of housing services suited to their needs and state”.¹⁵ Likewise, the ECSR has also shown particularly critical in its decisions concerning the internment of older persons, leading the human rights discourse against force institutionalisation. The ECSR views institutionalisation as “a form of segregation, often resulting in a loss of autonomy, choice and independence” and hence has “emphasised the need to move away from institutionalisation of older persons and adopt a long-term care and support in the community model”¹⁶.

Nevertheless, this broader interpretation of the right of older persons to adequate housing as a right to age in place is not shared within the scope of other human rights instruments linked to the Council of Europe. In *H.M v. Switzerland* (ECtHR, App. No. 39187/98, 26 February 2002), the European Court of Human Rights interpreted ECHR in a way that did not protect the right of an old person facing forced institutionalisation to choose their place of residence (Mikołajczyk, 2013). The Court has traditionally taken a deferential position to the States when interpreting Art.8 ECHR in the context of housing (Quintiá Pastrana & Vols, 2024). However, the Court should have at least considered the right of citizens to choose their own place of residence, as inferred in *Gillow v. the UK* (ECtHR, Application No. 9063/80, 24 November 1986) from Art.8 ECHR. Nevertheless, the ECtHR’s interpretation of the “home” as an “autonomous concept” protected in Art.8 ECHR (Kucs et al., 2008) can help understanding important elements of older persons’ right to access to housing. The ECtHR decision in *Marzari v. Italy* (ECtHR, Application No. 36448/97, 4 May 1999) has contributed, for instance, to identifying the existence of positive obligations to facilitate access to housing for people in need of a home “suitable to their disability”. This interpretation can be mirrored in the assessment of the needs of older people in need of assisted care or adapted housing.

A right to adequate housing for older persons stems from a holistic interpretation of international and European human rights law. This right is not a mere application of the right to housing to a particular cohort of people. It has been interpreted by treaty monitoring bodies as an autonomous mandate, encompassing unique international obligations. It entails, for instance, a right to age in place or the protection against forced institutionalisation. It has been also interpreted in connection with the automation and digitalisation of housing systems as protecting the right of older persons from adopting new technological solutions when they lead to social exclusion. This normative framework informs State practice and sets both positive and negative obligations that are relevant when older persons want to access housing. To understand better the nature and scope of these international obligations, the next section provides an analysis of how structural and digital barriers hinder older people's access to housing.

Access, barriers and older persons' right to housing in the digital society

Building on the normative framework outlined above, this section focuses on access to housing, a critical dimension of the broader right to adequate housing. Using Vols' theory of multiple housing rights (Vols & Stefan van Tongeren, 2024) and a three-dimensional typology of physical, human and systemic or institutional barriers (Quintiá Pastrana & Vols, 2024) it analyses the extent to which older persons are excluded from accessing to housing in real-life scenarios. The concept of "digital barriers" is also introduced, providing a lens to understand how digitalisation relates to existing inequalities.

Understanding older persons' right to access housing

Vols and Stefan van Tongeren (2024) conceptualised the right to housing as a compound of access, occupancy and exit rights. Access rights refer to individuals' ability to enter or acquire housing. Occupancy rights come into play regarding individuals facing limitations in the enjoyment of their home (i.e., noises, pollution). Exit rights concern individuals leaving their homes, particularly during evictions. These dimensions are closely interconnected, and certain situations could be analysed under the lenses of more than one of those categories (Ibid).

Some of the sources addressing older persons' right to adequate housing focus on issues relating to occupancy or exit rights. The idea of a right to age in place, for instance, is often interpreted in relation to measures aimed at preserving the adequacy of the living space. In connection to this idea, the Vienna Plan recommended the states to help older persons "to continue to live in their own homes as long as

possible”.¹⁷ Along these lines, the Madrid Plan stressed the need to “link affordable housing with social support services to ensure the integration of living arrangements, long-term care and opportunities for social interaction”.¹⁸ Similarly, the Special Rapporteur reports and the CESCR decisions have mostly focused on clarifying the rights of users of older people homes during the Covid-19 crisis¹⁹ and protecting them from evictions.²⁰

This focus on exit and occupancy rights probably stems from a common assumption that older people own their homes.²¹ However, although a significant proportion of older persons in Europe are homeowners, many live in rented accommodation or have outstanding mortgage payments. According to Eurostat, 40% of people over 65 living alone do not own their homes (Eurostat, 2024). Likewise, in some European countries, statistics have shown the existence of an older cohort of the homeless population (Baptiste & Marlier, 2019). This is particularly relevant, considering that the prevalence of geriatric conditions is higher among homeless older persons compared to those housed (Brown et al., 2017).

Access rights are relevant when people want to enter, acquire, rent, or start using housing (Quintiá Pastrana & Vols, 2024). This entails a twofold reality, with both physical and abstract dimensions (i.e., moving within a house, or concluding a rental agreement). There are many situations in which an older adult may need access to housing. Firstly, after a family unit splits or after the passing of the holder of a shared tenancy agreement (Abramsson & Andersson, 2012). Secondly, older cohorts of people are also involved in migratory flows (Ruspini, 2009). The “lack of financial resources and knowledge of the housing market, as well as discrimination by property owners” are aspects that impact on older cohorts of newcomers, who struggle more than the locals to find adequate accommodation (OECD/European Commission, 2023). Finally, access rights are also relevant to older persons living in informal settlements, unsafe housing or infrastructures lacking access to services, essential facilities adapted to their needs etc (Centre for Ageing Better, 2021). Despite already inhabiting a dwelling, either moving or carrying out structural interventions are essential for them to access to adequate housing.

Barriers to older persons' access to housing

Older persons often encounter problems in accessing housing. While some of those problems are unique to their position in society, others intersect with other structural factors such as gender, race, disabilities or socio-economic status. In-depth analysis of these problems is fundamental to gain a deep understanding of the right to access to housing. These barriers can be legitimate (i.e., doors blocking the entrance to a house) or illegitimate (i.e., refusing to sign contract based on ideological grounds). Using this typology, we can examine when specific measures are necessary to address the situation of older persons. Additionally, we can investigate

how the context of increasing automation and digitalisation relates to these previous barriers.

The socio-legal analysis presented here is based on a review of empirical evidence regarding the lived experiences of older persons, adopting a socio-legal perspective to bridge the gap between the formalistic analysis of rights and the real legal practice. However, this approach cannot replace the inclusion of older persons' voices in policy debates. Meaningful participation of older people in the design of housing policies is essential to ensure that rights-based frameworks respond to older persons' needs.

Physical, human and systemic or institutional barriers

Firstly, older persons may experience barriers stemming to the structural configuration of the living space. Basic actions as cooking or using the toilet may become impossible due to the internal configuration of the house (Wahl et al., 2009). The lack of a functional elevator in the building or mobility supports within the living space may hinder their opportunity to inhabit a dwelling (Smith et al., 1994; Tomioka et al., 2018). Older persons also may find themselves excluded from accessing housing because of their location in neighbourhoods perceived as unsafe or lacking access to public transport and barrier-free sidewalks (Population Reference Bureau, 2017).

Secondly, some of the barriers that older persons experience when accessing housing result from human actions. Discrimination in the real estate market is one of the most important hurdles they may face (Open Communities, 2023). Individuals may refuse signing rental agreements with them or decline granting them mortgage loans (Kaul, 2021). When those decisions are based solely on age, they could inherently constitute a discriminatory practice, sanctioned by international human rights law and therefore, an illegitimate barrier.

Thirdly, systemic or institutional barriers may also limit older persons' access to housing. As any other social group, older persons may be confronted with affordable housing shortages, limiting their ability to find adequate housing if they do not have sufficient means. However, older persons are more likely to be dependent on pensions that are not necessarily in line with rental market prices (Eurostat, 2020). The capacity of some retired older persons, particularly women, to find new financial means may also be more limited than other younger cohorts of people (Castro Baker et al., 2019). Moreover, social housing programmes are not always designed with older persons' needs in mind, which can lead to various problems, such as administrative hurdles in accessing social housing procedures, problems in accessing justice to defend their own interest or being allocated housing that is not adapted to their needs (Nogueira López, 2020). Another important and sometimes overlooked problem arises from the lack of recognition of older persons' autonomy to make their own decisions (Runcan, 2012). If older persons are not involved in

institutional or human decision-making processes that are relevant to determine their own place of residence, this could end in forced institutionalisation or other forms of encroachment of their freedom to determine their home.

Finally, it is important to consider that these barriers do not operate in a vacuum, and they may overlap with each other, producing compounded effects. An apartment without an elevator may be difficult to access by some older persons (physical barrier). However, the barrier will be insuperable if there's no affordable adapted housing available or this person is excluded from the social housing system (institutional barriers). This presents a different analytical scenario in which compounded barriers further the situation of exclusion to which a person is exposed.

Likewise, people may experience the same barriers in different ways. As a result of structural patterns of inequality, older women, older migrants, or older persons with disabilities may have different experiences facing physical, human and institutional barriers. Despite "widespread acceptance, the concepts of multiple discrimination and intersectional discrimination are not really reflected in the law or in legal practice" (Côte Real et al., 2025, p. 4). However, recognising the many different and overlapping forms of discrimination to which they are exposed in their relationship with housing systems requires to broaden the analytical lenses to incorporate this perspective into the analysis of the barriers to accessing housing.

Digital barriers

It is widely accepted that the incorporation of digital elements and automated services may have positive effects in shaping an adequate living environment for older persons (UNECE, 2021). Literature has shown how smart homes facilitate activities of daily living, assisted care and communications (Aggar et al., 2023; Lolich et al., 2019). From this perspective, the increasing automation and digitalisation of life could help to overcome, with a single click or a voice command, some of the physical, human and systemic or institutional barriers. However, the incorporation of the digital paradigm to this field also presents risks in terms of accessibility, which could constitute authentic "digital barriers" to older people's access to housing.

Firstly, the digitalisation of the housing market and the living environments come hand in hand with additional hidden costs in terms of skills and knowledge. Without appropriate digital literacy, some of these advancements may not be accessible to older people (Lê et al., 2012). Many older persons have not had the opportunity to learn the digital language that is necessary to interact or trust digital environments (Ghorayeb et al., 2021). What may seem simple interactions, could be perceived as particularly difficult or untrustworthy for others (Pirhonen et al., 2020; Vaportzis et al., 2017). This applies to a wide range of actions including opening the door of a smart home or finding housing solutions in internet platforms.

Furthermore, the digital shift is generally coupled with an increase in virtual attendance. Human interlocutors in the housing market are expected to be replaced by online forms or chatbots (Tanović & Hasibović, 2024), which not always are flexible, sensitive to nuances or programmed for improvisation. These cost-cutting strategies may constitute a major digital barrier to accessing housing for older persons (Frishammar et al., 2023). However, automation and digitalisation do not necessarily have to replace classic human attention with machines (Lolich et al., 2019). It is important to consider that older persons without digital literacy are particularly vulnerable and could be excluded from whole sectors of the housing market whose access has been depersonalised and relegated exclusively to screens. In the private sector in particular, prices in a digital market may evolve differently from those in a market managed by human agents. This would further jeopardise the right of older persons to adequate housing.

Finally, the automation of decision-making processes, delegated to opaque procedures determined by algorithms may also result in biased selections with masked harmful and discriminatory effects (Ferrerri & Sanyal, 2022), also against older people. This can be particularly harmful regarding social housing. Research has shown how automation and algorithmic decisions may replicate patterns of social exclusion that then go unnoticed by human observers (Lendvai & Gosztanyi, 2025; Rosenthal-von der Pütten & Sach, 2024). Rather than contributing to eliminate human barriers, the digitalisation could reinforce them. In this regard, some studies have pointed the need to consider establishing a “reserve of humanity” (Ponce, 2019). That is, limiting the automation of administrative discretionary procedures which require “empathy” (*Ibidem*), among which social housing or the allocation of housing welfare benefits could be included. Nonetheless, research has shown the need for adopting algorithmic systems in decision-making processes with caution due to possible biases that involve different vulnerable groups (Friis & Riley, 2023).

These examples illustrate how older persons’ access to housing is shaped by multiple physical, human and systemic or institutional barriers within the context of a digital society. When these barriers lead to unequal treatment or discriminatory decisions, we may legitimately question whether the States have specific obligations to respect, protect and fulfil the right to access housing in the face of these types of elements. Clarifying this is vital to a better understanding of the right to housing in relation to older persons and the protection of older persons through human rights. The following section synthesises the legal obligations that arise in response to illegitimate or discriminatory barriers.

International obligations concerning older persons’ access to housing in the digital era

Having identified the main barriers hindering older persons’ access to housing, this section outlines the corresponding international obligations

to address them. There is a wide consensus that international obligations stem from the international right to housing (Hohmann, 2013). Some studies suggest that such obligations would also have a horizontal effect, binding not only states but also private actors (Fick and Vols, 2022). Following the Maastricht Guidelines on Violations of Economic, Social and Cultural Rights, previous research has identified international obligations to “respect”, “protect” and “fulfil” the right to access to housing (Quintiá Pastrana & Vols, 2024). It would be logical to interpret that those obligations relate at some extent to the specific needs and circumstances of older people and the digital society. In this paper, a synthesis of these obligations is presented.

Firstly, there is an obligation to *respect* the right of older persons to access to housing. States should refrain from actions or practices that may constitute barriers to accessing housing, like “delimiting urban property in a way that makes it impossible to develop affordable housing”, imposing “disproportionate conditions for the establishment of one’s residence”, or creating “physical barriers in public spaces” (Quintiá Pastrana & Vols, 2024). In this sense, the Vienna plan has recommended for instance “coordinating policies on housing with those concerned with community services”²² and “making arrangements so as to allow the aged to move about and to protect them from traffic hazards”²³ Likewise, the Madrid plan also recommended “encourage age-friendly and accessible housing design and ensure easy access to public buildings and spaces”²⁴ and to ensure that “housing provided for older persons takes appropriate account of their care and cultural needs”²⁵

Within the UN and the ESC’s scope, States are also bound to respect the right of older persons to choose their own accommodation by avoiding forced institutionalisation.²⁶ Such interpretation has important implications for the design of policies, institutional regulations or administrative procedures that may reduce the autonomy of older persons to determine their own home. As the UN Independent Expert recommended, “legislation or practices that enable substitute decision-making, especially in the context of forced institutionalisation, must be repealed and replaced by laws guaranteeing supported decision-making”²⁷

In connection to this international obligation to respect access to housing, it could also be argued that States should refrain from automating or digitalising environments when this limits older persons’ access to housing. The UN Independent Expert on the enjoyment of all human rights by older persons has recommended, regarding the incorporation of autonomous robots to the assisted care of older persons “a review of the existing normative and policy frameworks to ensure that a human rights-based approach is being adopted to assistive technology”²⁸ The idea of a “reserve of humanity” (Ponce Solé, 2019) could be expanded to ensure not only that procedures but also certain technical solutions are implemented according to a principle of precaution, limiting the digitalisation and automation to areas or spaces where there is clear evidence of its potential benefits.

Secondly, States are bound to *protect* the right by “preventing others from blocking their access to housing” (Quintiá Pastrana & Vols, 2024). This means that the States should intervene against physical or human barriers created by third parties. In this regard, the Vienna plan has recommended “agreements with the private sector to develop various types of housing for the aged to suit their status and degree of self-sufficiency in accordance with local tradition and customs”²⁹ In a similar vein, the Madrid plan recommended to “encourage age-friendly and accessible housing design and ensure easy access to public buildings and spaces”³⁰

The UN Independent Expert has widely interpreted obligations to protect the right of older persons to access adequate housing in its thematic reports. Firstly, the States should “establish standards”³¹ and “require the private housing sector to consider the needs of older persons when building new houses”³² ensuring that “all new public and private residential developments are subject to and comply with the requirement of universal design”³³. Secondly, States should “take measures to eliminate ageism and discrimination based on age that prevent older persons from obtaining access to economic and other resources”³⁴. This includes “removing barriers preventing access by older persons to bank loans and other financial goods and services”³⁵ To this end, States should provide redress mechanisms, access to justice and “age-friendly counselling and advisory services”³⁶ Aligning with the most recent ECHR case law concerning discrimination in tenancy succession,³⁷ the UN Independent Expert has also recommended to repeal “discriminatory property and inheritance laws” against older women.³⁸

However, none of the analysed documents have addressed the existence of international obligations to protect older persons from digital barriers. This is likely due to their implications in relation to other rights. But it would be reasonable to interpret that the States need to ensure an accompanied development of digitalisation in the real estate sector, given its potential segregating consequences for older people. For instance, providing the availability of alternative face-to-face or mixed services (i.e., virtual tours of rental dwellings guided by a person or carers assisting older persons in the use of screens).

Finally, States are also obliged to *fulfil* older persons’ right to access to housing. This means that the States must ensure the availability of resources to secure access to housing for older persons without the necessary means. However, this obligation can be achieved in many ways, since international law does not dictate specific strategies to follow (Quintiá Pastrana & Vols, 2024). The right of older people to access housing has been interpreted, for instance, as entailing obligations to offer “financial assistance, loan forgiveness and home restoration”, as well as to contribute to the eventual reduction of “rent or mortgage payments (...) to accommodate changes in the financial circumstances of elderly persons” (Rodríguez-Pinzón & Martín, 2003). It has also been interpreted as obligating to provide for “public financing (...) to develop various types of

housing for the aged to suit their status and degree of self-sufficiency³⁹ or to “promote equitable allocation of public housing for older persons”.⁴⁰ Mandates are clearly oriented to ensure that a part of the public social housing stock is allocated to this segment of the society. Interestingly, the UN Independent Expert recommends the States to “provide older persons with sufficient Internet connectivity, including in rural areas” and “strengthen the digital competence of older persons”.⁴¹ In this sense it is particularly interesting to observe that the document expressly mentions that “housing-related digital solutions for older persons should provide accessible technical support for all”.⁴²

Ultimately, States must ensure that their housing policies are designed and implemented in line with international human rights law. This means not only ensuring affordability, tackling discrimination in the market and facilitating adapted dwellings for older persons but also addressing emerging algorithmic biases and a growing digital divide that may exclude older persons from accessing housing. It is important to understand that access to housing is shaped by the digital society in which we live, with all the risks and challenges it encompasses.

Conclusions

This paper provides new insights into the nature and scope of older persons’ right to access to housing as inferred from international and European human rights law that are relevant for public policy design. An analysis conducted through a three-dimensional typology of barriers to accessing housing (physical, human and systemic or institutional) reveals clear international obligations to protect, respect and fulfil older persons’ right to accessing housing. Digitalised and automated housing may help to overcome some of those barriers reducing costs and trade-offs or increasing the level of interconnectivity or automating demanding tasks. However, the substitution of the traditional face-to-face attendance with screens and digital procedures may also constitute “digital barriers” limiting older persons’ access to housing, thus fostering situations of discrimination or segregation. It is important that public policies consider the risks involved in the digitalisation of both the private and public housing.

International obligations to respect older persons’ right to access housing could be interpreted as inviting the States to refrain from digitalising or automating social housing services and procedures when the risk of limiting access to housing is higher than the expected positive outcomes. Likewise, this right also involves obligations to protect older persons from third parties by establishing accessibility standards or providing redress mechanisms and access to justice against ageist discriminatory practices. In connection with this, it would also be of interest to consider the extent to which these obligations extend to private actors operating in the housing market. Human rights law could be interpreted as obligating the States to guarantee that the digitalisation does not segregate older adults within

the market. Finally, fulfilling this right may also require the States to secure resources, whether through direct allocation of a house or other financial strategies of their preference. While respecting their political autonomy, it is expected that the States ensure that the market accounts to enough affordable housing for older persons. In the context of the digital society, this could also require the States to implement strategies to increase digital literacy. When digital interactions are necessary, the State could also be deemed bound to secure human assistance to those lacking the necessary skills. These guidelines should inform both housing regulations and policy design to guarantee that any type of housing model adopted for ageing well is in line with international human rights law.

Notes

1. Report of the World Assembly on Aging, Vienna, A/CONF.113/31, 26 July-6 August 1982, Recommendation 19, p. 67.
2. Supra note 1, p. 67.
3. Political Declaration and Madrid International Plan of Action on Aging, Second World Assembly on Ageing, Madrid, Spain, 8-12 April 2002, para 98.
4. Supra note 3, para 99.
5. Supra note 3, para 100.
6. Special Rapporteur on the right to adequate housing, 25 January 2001, E/CN.4/2001/51; Special Rapporteur on the right to adequate housing, 14 March 2006, E/CN.4/2006/41.
7. Special Rapporteur on the right to adequate housing, A/HRC/22/46, 24 December 2012.
8. Special Rapporteur on the right to adequate housing, A/68/274, 7 August 2014.
9. Special Rapporteur on the right to adequate housing, A/75/148, 27 July 2020, para. 43-44.
10. Special Rapporteur on the right to adequate housing, A/68/289, 7 August 2013.
11. Independent Expert on the enjoyment of all human rights by older persons, A/77/239, 19 July 2022.
12. Supra note 11, para. 21-56.
13. Supra note 11, para. 91.
14. Supra note 11, para. 94.
15. ECSR, *International Federation of Associations of the Elderly (FIAPA) v. France*, Complaint No. 145/201, 22 May 2019, para 45; ECSR, *Central Association of Carers in Finland v. Finland*, Complaint No. 71/2011, para. 42.
16. ECSR, *Validity Foundation – Mental Disability Advocacy Centre v. Czechia*, Complaint No. 188/2019, 17 October 2019, para. 89.
17. Supra note 1, p. 67.
18. Supra note 3, para 98.
19. Supra note 9, para. 43-44.
20. CESCR, *Gómez-Limón v. Spain*, (52/2018), E/C.12/67/D/52/2018, 14 April 2020; CESCR, *Lorne Joseph-Walter v. Spain*, (61/2018), E/C.12/70/D/61/2018, 23 November 2021.
21. Supra note 11, para. 61.
22. Supra note 1, p. 67.
23. Ibid.
24. Supra note 3, para 98.
25. Ibid.
26. Supra note 16, para. 89.
27. Supra note 11, para. 97.
28. Independent Expert on the enjoyment of all human rights by older persons, A/HRC/36/48, 21 July 2017, para. 109.
29. Supra note 1, p. 67.
30. Supra note 3, para 98.

31. Supra note 11, para. 116.
32. Supra note 11, para. 119.
33. Supra note 11, para. 120.
34. Supra note 11, para. 95.
35. Supra note 11, para. 112.
36. Supra note 11, para. 104.
37. ECHR, *Fedotova and Others v. Russia*, Application No 40792/10, 30538/14 and 43439/14, 17 January 2023; ECHR, *Kozak v. Poland*, Application No 13102/02, 2 March 2010, para. 99; ECHR, *Karner v. Austria*, Application No 40016/98, 14 July 2003, para. 41.
38. Supra note 11, para. 106.
39. Supra note 1, p. 67.
40. Supra note 3, para 98.
41. Supra note 11, para. 109.
42. Ibid.

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