Open Research Online

The Open University's repository of research publications
and other research outputs

Written evidence [PTC0018]

Other

How to cite:

Marston, Hannah; Morgan, D.J; Wilson-Menzfeld, G; Gates, J.R and Turner, R (2021). Written evidence [PTC0018]. UK Government.

For guidance on citations see FAQs.

oro.open.ac.uk

Written evidence - Dr Hannah R. Marston, Dr Deborah J. Morgan, Dr Gemma Wilson-Menzfeld, Mrs Jessica R. Gates & Mr Robbie S. Turner (PTC0018)

Overview of Institutions

The Open University (Marston), Swansea University (Morgan), Northumbria University (Wilson-Menzfeld, Gates) are leading the way in creative, innovative, and interdisciplinary research surrounding age-friendly cities and communities in conjunction with the use and impact of digital technology and practices by citizens in society. Turner is a partner and a senior consultant of Spektrum Consulting, he is well versed in telecommunications for the private sector, and supports apex customers in Defence, Humanitarian and Government markets.

Contributors (Marston, Morgan, Wilson-Menzfeld, Gates) of this evidence collaboratively work together on numerous projects, and in conjunction with stakeholders (e.g., Age Northern Ireland, Age Cymru, Age UK, Campaign to End Loneliness, War Widows' Association, Digital Voice for Communities, Digital Communities - Wales) and policy makers (e.g., Welsh Assembly Government, Policy Connect) which ensures the research conducted and executed takes an inclusive approach through co-production and participatory design workshops. This approach ensures the voice(s) of the citizens is heard, reflected within, and underpinned in the research. Marston and Turner collaborate together on projects pertaining to a Not-for-Profit associated to NATO.

Marston, Morgan, Wilson-Menzfeld, and Gates are leading authorities in their respective area(s) of research and disciplines and are the next generation of interdisciplinary researchers as well as the next generation of gerontologists/gerontechnologists at their respective institutions. Additional expertise lies within the international management consultancy agency – Spektrum, primarily focusing on technology and telecommunications equipment for both the private sector, Defence, Humanitarian and Government markets. All contributors work across both national and international landscapes, through their varied networks, membership organisations, project management consulting and leading inter/national research projects through their respective HEIs.

Why are we submitting this research:

The evidence presented here is representative of marginalised communities and citizens living and residing in various dwellings and physical spaces across the UK during the pandemic while thinking beyond in a post-pandemic society.

We believe the work that we conduct relating to the age-friendly domain, housing, cities, digital technology/practices, and the green spaces narrative will facilitate a greater understanding of the needs, challenges, enablers, and concerns surrounding diverse communities (young and old) are met in the future.

This evidence is essential to move beyond the Covid-19 pandemic and to ensure a lasting legacy for all people across the life course, who are living in various dwellings - from private ownership (including rental homes) to council housing. This research is agile (as demonstrated below) which in turn illustrates how digital technology and practices can impact housing while offering alternative approaches to existing and future housing needs with appropriate, innovative, and planning for the future. This in turn should ensure flexibility for younger cohorts (Gen X, Millennials etc.) who are and will be the future ageing population(s); and who will have different expectations than existing older populations in society. While from the standpoint of mid-and-older adults in society, they too will have their own needs, expectations, and perspectives such as living independently into later life and could positively adopt appropriate digital technologies and practices into their home to continue independence.

Therefore, learning to understand the needs, barriers, challenges, and benefits experienced by different cohorts now, will provide numerous actors (e.g., interdisciplinary academics (e.g., gerontechnologists, social scientists), architects, builders, planners, local/regional/national governments, designers, health a baseline for the future.

This notion in turn will facilitate and afford appropriate strategic planning for existing and future citizens to continue independent living into later life, while affording industry, academia, and policy makers the opportunity to dig deeper into prospective matters arising and continue to move debates and narratives forward.

Body of evidence

The evidence presented forthwith will focus primarily on 1. *housing* with a view to discussing 2. the *increase* and *decrease of inequalities within and between our towns and cities* and finally ask, 3. *how could the UK Government, town and cities leaders, and others use their response to the pandemic to reduce inequalities in housing and green spaces?*

Housing:

The Covid-19 pandemic has highlighted and exacerbated the importance of our housing needs with many citizens confined indoors and left to manage various activities ranging from home schooling, caring for dependents including family members with disabilities and long-term chronic health, and life-limiting or life-threatening health conditions ([Covid-19: Vulnerable Young People Living with Life-Limiting/Life Threatening Conditions and Families; 2020](#)). While conducting exercise and physical activity outside was allowed and encouraged for a certain period of time each day, this was not allowed in groups, and individuals were thus expected to adapt to a new way of behaving in society in an agile way.

Moreover, many citizens have been socially isolated due to respective local, regional, and national lockdowns and tier-restrictions, resulting in their ability to

socially connect (Marston, Musslewhite, & Hadley, 2020a; Marston & Morgan, 2020a; 2020b; Wilson, 2020; Wilson, et al., 2020, Burholt, et al., 2020) being thwarted. This impacted their respective emotional, mental and physical health and wellbeing (Morgan, Marston, & Hadley, 2020; Marston, et al., 2020a). Continuing to reside in various standards of housing has for many citizens been difficult.

Contemporary, innovative, and in some instances Covid-19 specific research highlights the importance and role digital technology and practices has and continues to play in the lives of citizens (Freeman, et al., 2020; Marston et al., 2020b; Marston & Kowert, 2020; White, Marston, Shore & Turner, 2020; Marston, Genoe, Freeman, Kulczycki, & Musselwhite, 2019; Wilson, Gates, Vijaykumar, & Morgan, 2020; Marston & Samuels, 2019; Marston, 2019).

Marston & Samuels, (2019) explored the use and implementation of virtual assistants (VAs) into various dwellings which at present afford existing residents the opportunity to conduct an assortment of activities (e.g., reminders, shopping lists, and make calls). The internet of things (IoTs) (Marston & van Hoof, 2019) offer residents the opportunity to control their heating, lighting, security (e.g., doorbell sensor), grocery shopping and laundry and dishwashing (Pantri) (Marston, et al., 2021). While the pandemic has illustrated residents and citizens have conducted design hacks to share information and adapt their environment to ease their way of life (White, et al., 2020). Such examples include creating noticeboards for high-street stores to facilitate orderly queues.

To move forward in a post-pandemic society, a multi-faceted approach has to be taken and implemented, at local, regional, and national levels, incorporating a myriad of actors (e.g., councils, developers, planners, architects, designers, technology and telecommunications industry, educators, researchers, and construction, etc.). Yet, it is the individuals, residents and families who are the primary actors when discussions to housing are being conducted in the future, because they are the ones who will have to live in the home environment.

With this in mind, there are several frameworks aligned to the age-friendly cities and communities (AFCC) domain (van Hoof, et al, 2021) which demonstrate the priorities of respective scholars aligned to interdisciplinary research. More importantly Marston and van Hoof (2019) propose the *SAfE (Smart Age-friendly Ecosystem)* framework which includes the physical environment (e.g., housing) in an attempt to advance the existing AFCC narrative(s) into the 21st century.

While taking a smart city standpoint Marston et al. (2020), discuss and propose a new innovative framework (Figure 1) building on previous frameworks (Marston and van Hoof (2019; WHO, 2007) with the attempt to compound the segments and factors situated within rural, urban and metropolitan areas. The *'Concept of Age-friendly Smart Ecologies'* – CASE (Figure 1) framework (Marston et al., 2020), theoretically underpinned by ecology and clearly illustrates and considers what a post-pandemic society could be in the future. The CASE framework (Marston et al., 2020) requires and needs a multifaceted approach, such as sustainability, accessibility, various digital technologies, and practices intersecting within micro and macro levels. However, the CASE framework

(Marston et al., 2020) is central to this call for evidence because it exemplifies the myriad of actors, including citizens who play a central role in any future designs, developments and implementations associated to *housing,* and the physical space such as green space.

Surrounding the role digital technologies and practices play on various citizens in society within but not limited to *housing* and the physical/green space, Marston et al., (2020), present a series of case studies from the standpoint of intergenerational families, middle-aged families, older adults who are widowed, and/or who are ageing without children (AWOC) (Morgan, Marston, & Hadley, 2020), a family who has a child with a life-limiting/threatening health condition, and finally from the perspective of a young person. These case studies in additional to previous case studies by Marston and van Hoof (2019) demonstrate how digital technologies and practices can be integral to citizens who are ageing across the life course and who would utilize digital technologies and practices for numerous reasons to ensure their health, wellbeing, quality of life is positive for themselves and for their respective family members and friends.
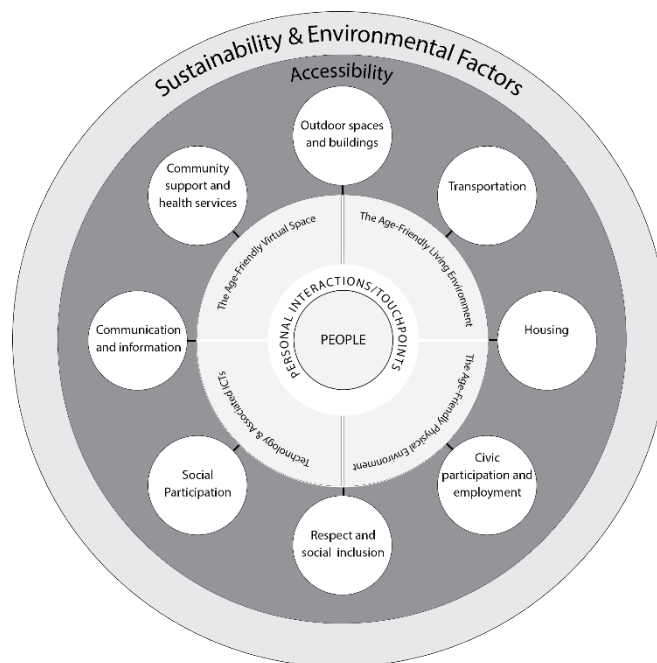
Concept of Age-friendly Smart Ecologies' – CASE framework (Marston, Shore, White, 2020)

Implementing a life course approach would benefit existing and future *housing* perspectives and strategies because if the needs, requirements, and expectations of citizens were implemented, this would enable them to live in their home environment into later life. The implementation and integration of digital technology into the home coupled with a micro and macro approach to societal needs – as demonstrated in the CASE Framework (Marston et al., 2020) would ensure all citizens can live in a comfortable and agile environment which meets respective needs at differing stages of the life course. Implementing the CASE framework would require a multi-agency/actor take-up and adoption but additional considerations are needed and this pertains to the digital skills of

citizens as highlighted by the 'Adapt Tech, Accessible Technology' (ATAT) project. Considering this approach and working with citizens to understand their digital skillset would ensure innovative and ground-breaking attitudes and methods towards citizens science and inclusion in contemporary society and in the future.

The notion of conducting retrofitting (van Hoof, & Boerenfijn, 2018) to existing private and social housing is an appropriate way to update existing *housing* needs across the UK. Implementing a retrofitting route plan/strategy would benefit many citizens and multi-agencies in the UK because it enables existing tenants and residents the opportunity to continue living in an environment that they are familiar with. Additionally, retrofitting can have both positive and negative connotations for the respective citizens because there is the likelihood of having to give or take. Furthermore, what should be maintained in discussions pertaining to this process is – that this environment is a home and not a clinical environment (Boniface & Morgan,2017;Morgan, Boniface & Reagon, 2016). Therefore, the needs, requirements, and understandings of the environment relating to all people in the home should be considered. A one-size fits all approach would not be suitable.

Implementing various digital technologies and adaptations into respective *housing* environments (private and social) is not as straight forward as it may seem because there is a myriad of factors that have to be considered. These factors include financial status of the respective citizens/residents, resident(s) choice to adopt digital technologies and whether the technology meets the needs, expectations, and requirements of respective citizens (Bailey, Aitken, Wilson, Hodgson, et al., 2020; Wilson, Aitken, Hodgson & Bailey, 2019), and finally the residents' skillset – do they have the necessary knowledge and skills to use digital devices? Do they have a smartphone that can be used to manage the integrated devices? Do they have Broadband in their home?. These are all questions that the '*Adapt Tech, Accessible Technology*' (ATAT) project has been addressing with older adults living in the areas of Newcastle and Wales.

However, digital skills and confidence (Marston, et al., 2020) are key to ensuring positive digital technology take-up, adoption, and implementation of IoTs (Internet of Things) within the home environment now and in the future; and in conjunction with indoor and outdoor physical spaces (van Hoof, et al., 2021; Bailey, Aitken, Wilson, Hodgson, et al., 2020; Wilson, Aitken, Hodgson & Bailey, 2019).

For many citizens, the notion of continuing to live independently within their own home into later life is their desire. Moreover, as we age, there is the likelihood for many citizens to have increased concerns and accidents within their respective *housing* such as falls (Gschwind, et al., 2014) which can increase the mortality and morbidity of a person in later life (Rubenstein, 2006). The concept of integrating and implementing digital technologies and practices (van Hoof, et al., 2021; Gschwind et al., 2015; Marston, et al., 2015) into the *home environment and physical/green space* has the potential to afford all citizens the opportunity to remain healthy with a view to potentially reducing the risk of falling in later life (Gillespie et al., 2012; Sherrington et al., 2008).

One example is the concept of implementing specific technologies into the *home environment* to facilitate exercise in a bid to prevent mortality and morbidity can be difficult based on various dynamics: 1. the size of the home (e.g., house vs apartment vs a room in a multi-occupancy home), 2. limited space because of existing furniture and/or type of dwelling, and 3. motivation and confidence, to conduct respective exercise programs. These factors can also stigmatize marginalized people (e.g., language barriers, level of education etc.), and who are low-income homes and communities.

An example of this is highlighted by Marston and colleagues (2021) who critically assessed the *Blue Zones*® (Okinawa, Japan), 2. Ogliastra Region, Sardinia (Italy), 3. Nicoya Peninsula (Costa Rica), 4. Ikaria (Greece), and Loma Linda (California)) *Checklists* (Home, Kitchen, Bedroom, Tribe); using a systematic mapping approach (Munthe-Kaas et al., 2019) the analysis emphasized how the respective Checklists were targeting financially stable people living in Western Society. However, the respective checklists did not consider marginalized people in Western society, nor did the checklists consider how the suggestions would be implemented in low-middle-income countries and in the respective *Blue Zones*® regions themselves.

Furthermore, attention needs to focus on making cities and towns where citizens of all ages can meet. The built environment can be nurturing or neglectful, established through subtle signals that can inhibit or promote social interaction and trust (Donovan, 2017), and which ultimately may result in loneliness and isolation. For example, gated back lanes, broken streetlights, graffiti, a lack of services, poor transport links and streetscapes that discourage walking can all send implicit messages to local residents that this is not a good place to live (Morgan, 2020). This in turn may result in limited social interactions particularly for older residents.

Recommendations for the UK Government, towns and cities leaders , and others use their response to the pandemic to reduce inequalities in housing and green spaces

Based on existing research, literature and our evidence presented here we propose the following recommendations and route plan for the UK Government, multiagency and actors (e.g., builders, planners, architects, designers), who will play a significant role in existing and future *housing* and green space. The following recommendations are as follows:

1. Where appropriate and necessary retrofitting activities should be considered and conducted (van Hoof & Boerenfijn, 2018). Implementing a retrofitting approach would update and bring all housing up-to 21st century standards; while considering the concept of intergenerational living (van Hoof, et al., 2021; Marston & Samuels, 2019). Lessons need to be learnt from existing retrofit schemes and include residents/tenants at the outset. The skillset of the residents should be considered, and accounted for by providing appropriate training, to ensure they can get the most benefit from these housing upgrades.

2. Co-creation and participatory workshops/consultations with target groups and marginalized communities would detail and provide long-term strategies and route planning (van Hoof, et al., 2021).
3. Future strategies, route plans and developments should be underpinned by theoretical approaches including life course, (Elder, 1985) and ecology (van Hoof, et al., 2021; Marston, Shore & White 2020; Marston, et al., 2021) because without theoretical underpinning the needs, requirements and planning is limited. Specifically for citizens who desire to age into later life in their home environment and in a community that they are familiar with, surrounded by their community and family networks (Marston, Wilson, Morgan, & Gates, 2020).
4. Access to Broadband and Internet services should be appropriately accessible in all public spaces, buildings and housing to enable all citizens to access various digital technologies (e.g., mobile apps – NHS Covid-19 App) (van Hoof, et al., 2021; Marston & Samuels, 2019). With consideration given to accessibility and affordability for low-income citizens/residents.
5. Future strategies should implement and conduct a quantifiable measure to assess the level of Age-friendliness within a community. At present there is a quantifiable measure building on the WHO age-friendly framework (2007). By employing a citizen science attitude, in conjunction with a multiagency/actor approach this has the capability to provide all partners and collaborators crucial information and factors of what really needs to be focused on in different communities. To date there is one quantifiable measure the 'Age-Friendly Cities and Communities Questionnaire' (AFCCQ) (Dikken, et al., 2020) that has been evaluated in one of the WHO Age-friendly cities – The Hague, and is published in English. The AFCCQ affords practitioners and researchers to capture and monitor the level of age-friendliness which in turn can feed into regional and national policies and route plans.
6. Building on point 5, future housing and community developments should consider the use of brown belts and the changes throughout the lifecourse coupled with changes to day-to-day living as a result of the pandemic and future preparedness. Enabling people of all ages to stay within their community would enable people to maintain social connections, and familiarity rather than being dispersed.

The recommendations proposed here are not exhaustive, but it does require a collegiate approach to ensure all citizens are able to live a positive and independent life within their *housing* and *physical/green spaces* well into the 21st century.

This evidence has provided a succinct and comprehensive insight into existing innovative, creative, research narratives, findings, and pathways to impact, through various proposed recommendations and route plan(s) for the current and future societal planning strategies.

6 July 2021