**Creating Enabling Environments and Innovations: Perspectives from Asia and beyond**

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Abstract

The global shift towards an aging population poses both challenges and opportunities. Older adults often face ageism and marginalization, and their potential for contributing to society is often overlooked. This background paper delves into the crucial role of creating an enabling environment and fostering innovations to support the aging population in Asia. It also explores the need to co-create environments that support older individuals and their families in the face of climate change challenges.

The paper focuses on four key areas: bridging the digital divide and capacity building

for older people, developing gerontechnology, promoting universal design and

accessibility, and encouraging intergenerational living. These facets are foundational

in cultivating an inclusive and enabling environment for people of all ages. It will emphasize the importance of involving older adults in leading community initiatives and highlights the role of architects and designers in shaping age-friendly living environments. A whole-of-society approach is necessary to empower older individuals and challenge prevailing narratives, ultimately reenvisioning aging as a cherished stage of life involving active and engaged elders. Design professionals play a pivotal role in creating enabling environments and fostering innovation for an aging population while promoting inclusivity and enhancing quality of life.

Introduction

The global demographic shift towards an aging population necessitates confronting

both challenges and opportunities. One challenge is how to tap onto the potential of

this rapidly expanding cohort of older adults. Studies have shown that older adults

often face agism and marginalization (Berger, 2017, Cheng and Heller, 2009). Aging

is commonly seen as a period of physical and intellectual decline, overlooking the

emotional growth and wisdom that generally accompanies it. Consequently, older

individuals are stigmatized as recipients of care and frequently isolated from daily

life, their life experiences and knowledge underutilized by younger generations (Ng

and Chow, 2021).This status quo raises a fundamental question: How can we codesign

a global future in which aging is not feared but valued as an opportunity for

continuing personal growth?

How we perceive older people fundamentally influences how we design our environment, which in turn impacts how we treat older individuals. To avoid falling prey to negative stereotypes about older people, we should incorporate individual voices and experiences into the design process, tapping into their potential in a sustained manner to effect positive change. Regardless of age or cognitive and physical capacities, everyone wants to contribute meaningfully to society. To unlock that potential in older people, we must recognize them as an invaluable part of their communities and capable of transformative change.

This paper underscores the importance of co-creating an environment that supports

older individuals and their families in the face of global aging and climate change

challenges. We will explore four key areas: universal design, intergenerational living, closing the digital gap and promoting technology for older adults. We will also highlight the importance of a community-based approach, which emphasizes the involvement of older adults in leading community initiatives. Lastly, we will discuss policies and initiatives that promote age-friendly communities, with a focus on the role of architects and designers in shaping future living environments for older individuals.

1. Promoting Universal Design and Accessibility

An accessible and safe living environment is essential to ensuring quality of life for older persons. The universal design approach has great potential for not only creating such environments but also facilitating social integration and intergenerational bonding. Universal design involves creating products, services, and environments that are accessible to individuals of all ages and abilities. The key tenet is to accommodate diverse needs and abilities, championing inclusivity and usability. Universal design, therefore, should be viewed not as mere compliance to regulations or principles but as a means to create a more equitable society.

Approximately 26% of all adults in the US contend with at least one disability (Centers for Disease Control and Prevention, 2023). Accessible technology, architecture, and transportation is paramount in enhancing the quality of life for older adults and people with disabilities. By eliminating accessibility barriers and embracing universal design principles, architects and designers can effect a profound transformation in all of these people, enhancing usability and inclusivity while fostering independence and engagement.

To promote universal design, we must: 1) encourage architects, urban planners, and

product designers to incorporate universal design principles into their work, 2)

advocate for the development of public spaces, transportation systems, and

buildings that meet the needs of older adults, and 3) enact legislation and standards

prioritizing universal design and accessibility, leading the formulation of such

standards and mobilizing citizen engagement to advocate for implementation and

enforcement.

2. Technological Changes and Aging: Bridging the Digital Divide

In this increasingly tech-reliant age, it is crucial to ensure that people of all ages are allowed live independently and engage fully with their surroundings. While technological innovations hold significant potential for creating an enabling environment for older individuals, the digital divide remains a substantial global challenge (Lu, Yao, & Jin, 2022). Disparities in technological adoption limit older people’s access to important information and services (Vassilakopoulou, & Hustad, 2023) and exacerbating social isolation (Chee, 2023, Seifert, 2020).

The digital divide is a challenge in Singapore as well, even with it being one of the global leaders in digitalisation across all age cohorts. A study of Singaporean older adults

showed that in those aged 75 and above, smartphone usage has risen from 28% in

2017 to 48% in 2021. However, this does not exactly translate into high levels of

digital literacy, as older Singaporeans predominantly used technologies for leisure

activities rather than for functional purposes. (Tadai & Tan, 2023) We have to look

beyond just digital usage to ensure a more purposeful inclusion of older persons in

the technological space.

2-A. Importance of Capacity Building for Older Persons

A survey conducted by AARP revealed that 66% of older adults rely on technology to

stay connected with friends and family, highlighting the demand for digital literacy

programs (AARP, 2022). Furthermore, the European Union Agency for Fundamental

Rights reported that only one in four persons in the EU aged 65 to 74 have at least

basic digital skills indicating that the digital gap is even wider in Europe. (FRA, 2023).

Thus, closing these skill gaps is imperative if we are to bridge the digital divide.

To facilitate meaningful engagement of older adults in a technology-driven society,

we should: 1) promote digital literacy by offering programs to teach older adults

howto use technology confidently, 2) provide affordable and user-friendly devices to

ensure accessibility for older adults, and 3) encourage governments to create

policies that prioritize digital inclusion for all age groups, including older people.

3. Gerontechnology Ecosystem Development

As important as it is to maintain meaningful engagement with friends and family,

technology has the potential to greatly improve the lives of older adults in other ways

too. Innovations such as health monitoring devices and assistive tools can transform

eldercare. Studies have demonstrated that wearable health technology can reduce

the risk of hospitalization among older adults (Dunlap and et al, 2023, Mois, &

Rogers, 2023). These assistive technologies can be used in tandem with other

innovations, like sensor technologies in smart homes and even smart cities, to allow

for better care outcomes and greater independence on the part of the user. These

new technologies present an exciting opportunity for architects and designers to

engage in gerontechnological innovations.

Gerontechnology can facilitate aging in place, making it easier for elders to stay in

their communities with less assistance. This is even more so important in a time where a global workforce shortage is making it difficult for many people to find the home care workers they need. To drive innovations in gerontechnology, we need to: 1) invest in research and development, allocating sufficient resources to first understand the needs and aspirations of older people and then develop gerontechnological solutions tailored to their preferences, 2) foster collaboration by cultivating partnerships among technology companies, healthcare providers, and academic institutions to deliver innovative products and services, and 3) ensure the accessibility and affordability of gerontechnological solutions for all older adults, irrespective of socioeconomic or housing status.

4. The Value of Intergenerational Living

As new technologies enables an environment where older persons can safely remain in their communities, its effects are multi fold. These arrangements empower older adults to stay socially engaged and contribute to their communities.There is growing interest among older people and policymakers globally in enhancing intergenerational support and providing co-living options. Intergenerational living arrangements foster social support, reduce isolation, and create meaningful interactions between generations. Policies and initiatives that endorse affordable housing initiatives and age-friendly community planning are crucial for promoting intergenerational living and building age-friendly communities.

In the United States, nearly one out of 4 working adults live with older relatives, and 57% reported their experience has been positive (Pew Research, 2022). However, this type of living arrangement is in decline within Singaporean households. In the 2018 housing report, only 7.1% of all households in Singapore comprise three or more generations— a decline from 10.1% in 2013. (Housing Development Board, 2021)

To promote intergenerational living, we should consider the following strategies: 1) develop a variety of housing solutions that facilitate multi-generational living, such as co-housing communities or adaptable housing units, 2) disseminate information about the advantages of intergenerational living and dispel myths and stereotypes, and 3) advocate for policies that incentivize and bolster intergenerational living arrangements, such as tax incentives or zoning regulations.

5. Including older persons in community development

Another approach entails collaborative endeavours, creating community hubs where

older individuals actively engage with and contribute to younger members of their community. The Ibasho approach serves as an exemplar. Ibasho challenges negative stereotypes about aging by empowering older individuals to co-design programs, manage operations, and shape physical spaces that contribute to their communities. Anchored in eight guiding principles distilled from collective learning and experiences (see appendix A), and augmented through the input of older participants, this approach fosters participation by older adults in community development, mentorship, and collaboration (Kiyota, 2015).

Ibasho participants co-create venues in which older individuals assume active roles in initiatives including disaster preparedness, with an emphasis on climate change induced

natural disasters. By unleashing the latent potential of older individuals to take leadership roles, elder-led community initiatives such as Ibasho bolster social resilience by strengthening intergenerational relationships within communities. (Lee and et al, 2022) Ibasho participants become mentors, change agents, and catalysts for fostering connections among others. Together, they collaborate in creating programs, managing operations, and crafting spaces, ensuring their self-sustainable stewardship over time. (Aida, and et al, 2023)

6. Challenging the Narrative: A Whole-of-Society Approach

A whole-of-society approach is necessary to tackle the four issues outlined above. This approach is grounded in governmental collaborations and partnerships with diverse stakeholders, including the nurturing of grassroots initiatives steered by community elders. This approach requires a societal mindset change with concrete initiatives rooted in local contexts. In Singapore, the Health District@Queenstown is a cross-agency pilot initiative that strives to promote a healthy lifestyle, update buildings and neighborhoods, and make the city healthier for people of all ages. The initiative aims to incorporate support for blended care, purposeful longevity, and technology via the built environment through various work streams. We believe that a whole-of-society approach is necessary to create an enabling environment and useful innovations for all in the community, especially older people.

Conclusion

Architects, urban planners, designers, and social scientists bear the responsibility of

adapting and creating environments that empower older adults, offering them a say

in where and how they reside, enabling them to remain integrated within their

communities, and affording them the chance to contribute to society in a meaningful

manner. In order to do so, we must develop a new understanding of aging as a stage

of life to be cherished — one in which older persons are engaged, esteemed, and

active members of their communities. Creating enabling environments and fostering

innovation requires designers to adapt by addressing the evolving needs of an aging

population while fostering inclusivity and enhancing quality of life. Addressing the

challenges posed by the digital divide and embracing the opportunities presented by

gerontechnology, universal design, and intergenerational living arrangements can

result in innovative senior housing options that benefit the community as a whole.

Our experiences in collaborating with older people through Ibasho make clear that

community is something we negotiate and create with others, not something that we

can passively receive. This insight informs us that we cannot design a community on

behalf of older people. Rather, we must design in collaboration with them, allowing

ample room for users to adapt and personalise their surrounding environments as

their needs change over time. Only this way can we truly design an enabling

environment for all.

Reflection

Creating an enabling environment and fostering innovation are pivotal factors in

ensuring that older individuals can age in place within familiar surroundings for as

long as possible. If our preparations fail to incorporate the participation and voices of

older individuals, we risk perpetuating several negative outcomes:

Dependency: This occurs when we create environments that overly protect older

individuals, limiting their autonomy and self-sufficiency.

Ageism: By offering exclusive services exclusively designated for the elderly, we

inadvertently reinforce stereotypes and biases against older people, contributing to

ageism.

Stigmatization: Providing specially tailored services and built environments for older

individuals can make them feel singled out or different from the rest of the

population.

Segregation: Designing age-specific environments and services separates older

individuals from the broader community, leading to a lack of intergenerational

interaction.

Social Isolation: Relying excessively on convenience and technological solutions can

reduce face-to-face interactions and personal connections.

It is imperative that we take care to avoid creating or exacerbating these conditions

through our built environments. We aspire for our society and built environment to be

inclusive for people of all ages and backgrounds. Furthermore, global aging is an

unprecedented experience that necessitates our collective efforts to develop

effective and affordable living environments that allow older people to remain

engaged as they age.

Challenging prevailing narratives requires a comprehensive whole-of-society

approach, with tangible initiatives serving as the linchpin for changing mindsets. In

order to succeed, these initiatives must be deeply rooted in local customs and

values, created with true grassroots input and led by community elders in the

grassroots spirit.

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Appendix A

Ibasho 8 principles