It's not a crime to be old

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It's not a crime to be old. Yet if you are an elderly person in COVID-19 lockdown in an aged care facility or isolated at home trying to fend for yourself, it must surely seem that way.

The pandemic has hit our elderly particularly hard, with those aged 60+ accounting for a disproportionate number of fatalities globally. It has also exposed the fragility of their rights to be protected and treated with dignity, with the UN Secretary General's Policy Brief warning that COVID-19 has escalated entrenched ageism.

Still even before the pandemic, countries throughout the world have been struggling to come to terms with the challenges of an ageing population – including the harsh realities about the conditions in which some elderly are forced to live during their later years, even in wealthy nations.

Globally, there is a trend to an ageing demographic, bringing with it a raft of complex political, fiscal and social challenges that simply won't go away on their own.

So what does this ageing demographic look like? Why is it seen as a problem? And what are some of the key initiatives aimed at helping secure a better ageing experience for some of our society's most vulnerable?

Much of the world is getting older – that's a fact

Thanks to medical advances and lifestyle changes from improved sanitation management and better nutrition etc., we are able to live well beyond the 38-year natural lifespan of modern humans, with the average global life expectancy being 72 years. And if you happen to live on the Japanese island of Okinawa, chances are you will live happily to well over a 100 years, particularly if you are female.

We've gone from a population distribution in 1950 shaped like a Mayan pyramid – with the bulk of the population under 60 – to something in 2019 that looks more like a Buddhist temple bell, with a significant increase in older age groups. And in 2050 the proportion of 60+ is projected to almost double (UN, WEF) accounting for over a fifth of the world's population – that's more than 2 billion elderly people!

So how do you end up being classified as elderly?

If you use the UN's 2030 Agenda for Sustainable Development with its call for leaving no one behind and its particular focus on the world's most vulnerable, the elderly are defined as those of 60+ years. The OECD goes for a slightly older cohort, defining the elderly as 'the number of inhabitants of a given region aged 65 or older'. And this classification is shared by the G20. A much broader age range is, however, used by e.g. advocacy group AGE Platform Europe where the focus is on older and retired people aged 50+ and who currently number more than 30 million in this region.

Irrespective of the classification used, there is no escaping the reality that the world's population is ageing – although not uniformly.

Countries have different ageing profiles and are ageing at different paces, such that there are now three categories to reflect this transition – Ageing, Aged and Super Aged.

Where the elderly (65+) represent at least 7 per cent of the population this is described as an *Ageing society* – e.g. India, Morocco, Mexico and Turkey. If the elderly represent at least 14 per cent of the population, this is termed an *Aged society* – e.g. Uruguay, Iceland and Thailand. And you are living in a *Super Aged society*, if the elderly comprise 20 per cent or more of the population – e.g. Japan, South Korea, France, Germany, the US and Canada (cf. WHO, IMF and G20).

This is in stark contrast to the disproportionately young populations of many developing countries, particularly in Africa, such as Niger, Mali, Chad and Uganda where the 0-14 age group comprises around 50% of the population.

Nonetheless, despite the shift towards an ageing world, 'there is also no typical older person' or homogeneous grouping of the elderly.

Factors such as income, sex, genetics and ethnicity as well as living in a supportive environment will have a big influence on how well an older person ages. Similarly, life experiences and personal preferences (including e.g. diet, exercise, smoking, alcohol consumption) and keeping mentally active and socially engaged all directly impact on age-related diseases and health-needs. And of course, the health conditions and experiences of ageing for a 65 year old will be quite different to those of a centenarian.

In general, though, there are common physical and neurological conditions of ageing including hearing loss and eyesight impairment, lung and cardiovascular problems, bone ailments, depression and dementia. Unfortunately, the double whammy is that these conditions tend to happen in clusters as you age.

There are also well-documented common concerns of the elderly themselves about social isolation and loneliness, and ongoing worry over finances.

And older women are more likely than older men to live on their own. In part this reflects longer life expectancy for females but also personal circumstances or preferences. Older women also tend to be less well off than males, largely attributable to differences in occupational incomes over time, smaller pension contributions and also disruptions to career progression due to raising children.

What's the big problem with global ageing?

Not unreasonably, the elderly want to be able to stay safely in their own homes for as long as possible and be socially connected, have easy access to public transport and buildings and parks and live independently, and age with dignity. This includes being involved in the decisions that impact on their wellbeing.

Unfortunately, in many countries, population ageing is happening at a time of ongoing declines in birth rates with a subsequent slowing of labour force growth. Gone is the Youth Dividend, which helped to deliver the economic development and prosperity of the past. In its place is a seemingly growing proportion of economically and socially dependent elderly with associated physical and cognitive health care needs and raising significant challenges for health care systems.

Of particular concern to politicians is the elderly dependency ratio i.e. the ratio between those aged 65+ and those of working age (15-64 years EC: 20-64 years OECD). Essentially, how many working people there are to grow economies and pay taxes to help finance the care and support of older people/retirees.

And this ratio presents additional challenges in Super Aged countries such as Japan and South Korea where increasing numbers of women – the traditional carers of parents, husbands, children and homes – are choosing to bypass these heavy-duty societal expectations. In fact, in South Korea there is even a term for this – the Sampo generation – those who are willingly giving up on relationships, marriage and children to lead independent lives.

Low birth rates coupled with increases in longevity have also resulted in the advent of what is described as the 'beanpole family'. This model now sees families with great-grandparents in addition to grandparents, but with fewer potential family members to draw upon to provide aged parental care support, even if they were willing and able to do so. Poverty and homelessness within older age groups and increases in elderly crime rates have also become apparent in some Super Aged countries.

And in countries such as Australia, a combination of a low growth in average household income and student debt makes it very difficult for many young people to find affordable rental accommodation for themselves, let alone enter the property market and secure important long-term housing for their own old age.

As the world's population ages, the ILO has also warned of the significant growth in the number of older persons needing long-term care support. Yet unpaid care substantially outweighs paid care and globally is shown to rest firmly with female members of the family.

Also, much the same as there is no typical older person, there is no standard informal/unpaid elder carer model. Depending on circumstances, family members might be involved in providing simple support with hygiene, meals and household chores, to more extensive and complicated responsibilities involving the use of medical equipment and related health care management, including detailed medication regimens.

However, the negative effects that 'the duration and complexity of caring responsibilities' have on both fully meeting the needs of the elderly person being cared for, as well as on the carers themselves are a major cause of concern. Caring for the elderly is not only physically and emotionally draining but unpaid carers often have to juggle other obligations such as to their own children or to their workplace, frequently at the cost of sacrificing their own health and personal needs.

The 'elephant in the room' is clearly who will be able to provide the inclusive care and financial support for the elderly as populations age and the supply of the traditional unpaid mostly female carers needed is simply no longer there?

It is of no surprise that there is now much greater community expectation for governments, rather than families, as was the case in the past, to help meet the substantial care and infrastructure needs and costs of the elderly. Of course the big question is how will they fund it? And in its report 'Time to Care' Oxfam questions the readiness of governments to provide the needed services and infrastructure for the extra 100 million older people estimated to require care by 2030.

This is of particular concern in countries with strong conservative political parties whose platforms advocate small government, low taxation regimes for the rich and big corporations, reduced spending on welfare, and an onus on the individual to look after themselves – such as the US, UK and Australia.

The aging population as an asset not a liability

The UN has warned that: 'Population ageing is poised to become one of the most significant social transformations of the twenty-first century, with implications for nearly all sectors of society'.

In tackling this challenge, key international bodies such as the OECD, WEF, EC, G20, WHO and the Global Coalition on Aging are calling for the creation of new mind-sets towards the elderly. One where ageing populations are seen as an opportunity to be a driver of economic growth rather than a source of decline and where significant investments are made to improve the quality of the ageing experience.

This is often referred to as the Silver Economy where the largely untapped consumer power of the ageing population is specifically targeted across a range of services and products – e.g. in healthcare and leisure.

An additional dimension to the Silver Economy is where attitudes to the over 60s in the workplace are reconceptualised with compulsory retirement ages/pension eligibility ages removed and flexible workplace arrangements promoted. This includes the provision of lifelong learning opportunities to maintain a worker's employability as industries change and to avoid a mismatch between individual skills and what the organisation needs.

The over 60s are also encouraged to pursue entrepreneurial ventures within their communities. And underlining all of this is the principle of ageing in good health and maximising on digital support opportunities to help the elderly live independently and happily.

And for the 27 member countries that form the EU, significant investments have been made in the support of digital transformation of health and care solutions and policies for Europe's ageing society. This is part of a priority to improve the quality of life of older people as well as to help build the European Silver Economy.

The EU has been an early leader in vigorously addressing inequality. Back in 2010, Europe 2020 was launched, promoting 'smart, sustainable, inclusive growth'. This inclusive economic growth strategy continues to be reflected in the European Commission's priorities for 2019-2024 – particularly 'working for social fairness and prosperity' and 'empowering people with a new generation of technologies'.

And in 2011, the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) was established with the aim to make the EU a place of excellence in innovation for healthy ageing. Also as part of empowering people through technologies, the Active and Assisted Living Programme (AAL) was set up with a particular focus on how technology can be taken up in real healthcare settings.

For the 194 member states of WHO 'A Global Strategy and Action Plan on Ageing and Health' was adopted by the World Health Assembly in 2016 to help establish a framework to achieve Healthy Ageing for all. Core parts of the strategy include the development of age-friendly environments and better addressing the needs of older people as well as having sustainable and equitable systems of long-term care. WHO has also worked for a number of years on the development of the Global Network of Age Friendly Cities and Communities with actions to combat ageism.

At the national level, many are looking to the world's first Super Aged country Japan for leadership and solutions and in particular its success in realising its vision to create an inclusive, environmentally sustainable 'super smart society' – Society 5.0.

Through the construction of a highly integrated cyber physical system Japan aims to build a human-centred sustainable society that balances economic development and solving big social issues such as ageing populations. And the clear expectation by Japan's government is that: 'new value created through innovation will eliminate regional, age, gender, and language gaps and enable the provision of products and services finely tailored to diverse individual needs and latent needs'.

The Platinum Society network created in Japan in 2010 also reflects Society 5.0 aspirations, aiming to build: 'a dignified society that cares deeply for the environment; can comfortably secure resources it needs; can be participated in by men and women, young and old; provides spiritual fulfilment and material wealth; and offers fair employment opportunities'.

And with high government debt and public spending on social security of more than 20% of GDP Japan is also looking to labour market reforms to help boost economic growth. The particular focus is on reforms that will help keep the elderly working longer and more productively. However, it needs to be remembered that Japan already has a working culture known for its long hours and occupational stress – with the extreme example being Karoshi (過労死), – or death from overwork.

Japan has also prioritised leveraging the underutilised productivity of women by introducing policies and initiatives that support women to work as well as raise families – known more broadly as 'womenomics' – with mixed results so far.

And in its contribution to helping the international community collectively strategize ways to improve the physical, mental and social wellbeing of people as they age the US National Academy of Medicine has initiated the 'Global Roadmap for Healthy Longevity' and the 'Human Longevity Global Competition' which aims to accelerate breakthroughs for healthy longevity and currently has collaborators in over 40 countries.

Tech billionaires, entrepreneurs and visionaries are also actively involved in seeing ageing as a major business opportunity, not an intractable problem.

Business heavyweights such as Peter Thiel, Sergey Brin, Larry Page, Jeff Bezos, Peter Diamandis and Mike Cannon-Brookes are looking to novel insights, breakthrough solutions and interventions for ageing and associated diseases enabled through accelerated knowledge and ICT convergence. And they have the important patient capital needed that allows them to wait for the transformative therapies projected.

Companies that have been attracting their interest and investments are start-ups with a longevity and healthy ageing focus such as Unity biotechnology, Calicolabs, Human Longevity Inc and Juvenescence. And through his foundation, Oracle founder Larry Ellison has been a long time financial supporter of anti-ageing research.

Transformative technologies and the ageing challenge

We are living in a world where the merging of physical, digital and biological spheres is fundamentally transforming industries and societies. This convergence is often referred to as The Fourth Industrial Revolution and has been made possible through advances in areas such as AI and robotics, 3-D printing, the Internet of Things and quantum computing.

There is now great potential to improve the wellbeing of the elderly through e.g. smart homes with sensor technology to enhance safety and independent living; wearable technologies such as fitbits and smartwatches to monitor health; and smart phones to assist with medication regimes; driverless cars to help keep the elderly mobile and socially engaged; and social bots to provide companionship and which are culturally aware and safe.

Convergent technologies can also reduce healthcare infrastructure and service costs by enabling the elderly to 'age in place' and also by providing better support for family carers and medical staff.

Japan and Europe are at the forefront of investigating the potentials of technologies for addressing the ageing challenge and promoting inclusion of the elderly

A particular problem faced in Japan is the shortage of care workers. However, there are few visas available for this category of employment that would realistically see foreign workers help fill the gap.

Nonetheless, with its history of technology leadership and appetite for innovation, Japan is actively looking to robotics to help with elder care. And it is aided in this by a general receptiveness of the Japanese to adopting new technologies as well as by a trusting culture, as pointed out by famous social robot creator Professor Hiroshi Ishiguro. Japan's indigenous Shinto faith is also seen to provide a different, more accepting perspective to robots than Western faiths, allowing Gods (kami) to inhabit all things, living or not.

A well-known example of AI in elder care is the ShinTomi nursing home where functions such as conversation and assistance with mobility are performed by a variety of robots and with apparent benefits – both for the elderly and the staff.

Nonetheless, even with receptiveness for companion therapy care robots, such as Paro the seal, they are expensive – on average 5000 Euros – which makes them unaffordable for many aged care facilities. More importantly, real, rather than mimicked empathy, is argued to be key to building genuine relationships. So what might work sufficiently well so far at the experimental stage in Japan might not necessarily be replicable elsewhere, particularly if it results in an increased sense of isolation for the elderly.

It is possible that robots in eldercare will be limited to a more assistive and labour-saving role. The emphasis being on affordable, accessible and practical improvements to the quality of that care and with the needs of carers, clinicians and the family of the elderly also specifically addressed.

Along the same lines, the WEF stresses the complementary role of the Fourth Industrial Revolution to the best parts of human nature – creativity, empathy and stewardship. Similarly, the Agile Ageing Alliance does not see robotics replacing the need for the personal touch of humans but stresses there is a need to better understand how technology can improve health and well-being, particularly with older people and how they engage with new technologies. And technical innovator for seniors VTT Finland counsels that: 'Technology is just an enabler - it should make life easier, not more complex'.

These issues are also comprehensively addressed by the recent European Parliamentary Technology Assessment Network report overviewing the policies and initiatives from 17 countries dealing with technologies and social innovations in elderly care. Socio-technological innovations, rather than technologies on their own, are seen within many of the individual country reports to be a key to improving the quality of life for older people. Collaboration between relevant stakeholders in the development of technologies for improved elder care is also identified as another key element, reflected in, for example, the Dutch Ministry of Health's Pact for care for the elderly people.

In its detailed examination of the potential of emerging technologies to support the elderly, the 2019 White House Task Force report stresses that 'the abilities of individuals and their needs for technology will vary significantly – both within the population and for individuals over time.' And that User Adoption will be strongly influenced by a range of factors including value, affordability, accessibility and language. The report also stresses the importance of developing usability standards for the design of technologies for older adults.

Similar points are made in the Decent Digitisation-series of the Rathenau Instituut (the Netherlands) where it is also emphasised that for every new technology time needs to be taken to address questions such as: 'Who is most likely to be hurt by this technology?' And, 'Who will win and who will lose with the adoption of this technology?'

Privacy and security considerations for both individuals and the data that have been collected and safety and trust issues are also identified by the EC regarding digital solutions in healthcare systems and raised by the WEF in its Global risks report 2020. For the EC a multi-stakeholder approach is seen as critical to resolving these issues and ensuring that 'it is not just about creating a new digital technology in isolation and then trying to push it forward'.

Smart cities and inclusive design

Over half the world's population lives in cities and many will grow old in these rather than rural settings. But urban living brings many challenges – with e.g. transport, energy and water efficiency; provision of green spaces essential for mental and physical wellbeing; and safety.

Nonetheless, big cities like London, Singapore and Barcelona have been responding to these challenges by actively leveraging advances in ICTs, e.g. through cloud solutions, to better manage the urban environment, promote sustainable economic growth and improve the quality of life of their citizens.

These cities have become known as Smart Cities. They are recognised for their user-centred design; focus on social inclusion; long-term vision of their planners; and collaborations between public and private organisations and civic groups.

Through the implementation of the Smart City concept, the elderly can potentially benefit from integrated infrastructures that target their specific needs. However, the concept of Smart cities itself is still evolving and implementation varies between cities and countries. And also as one European tech commentator has observed: 'You cannot glue smartness on top of a city: it has to grow organically from the inside out and from the bottom to the top.'

Nonetheless, a number of major international programmes already exist that can help guide 'age-friendly' initiatives and policies. These include the WHO Age-friendly Cities and Communities program and its Global Age-Friendly Cities Project.

A set of Principles for Age-Friendly Cities, has also been developed by WEF which includes infrastructure and transportation systems; opportunities to 'age in place'; and expanded access to work opportunities. Likewise, the WEF promotes Inclusive design for innovations in age-friendly infrastructure. Inclusive Design advocates 'one size fits one person' rather that 'one size fits all'.

And the European Commission has a number of initiatives promoting smart cities and communities with a major emphasis on social inclusion with the elderly being part of a connected community rather than being ghettoised.

Local and regional authorities can also play an important role in addressing complex challenges, including ageing populations. There is not only the immediate advantage of being able to see first-hand how such challenges are playing out but also the local knowledge of organisations and people who can help address them in partnership.

A recent Brookings report also notes that: 'Cities are finding value in "globalizing their local agenda," situating their priorities within global policy frameworks and engaging in problem-solving with their global counterparts'.

The municipal authorities of the Spanish city of Bilbao have undertaken an interesting initiative in this context, which is of direct relevance to UN SDG 11, which calls for 'inclusive, safe, resilient, and sustainable cities and human settlements'.

With around a quarter of the population over 65, the municipality has designed parks to help the elderly combat loneliness as well as keep their brains active through a number of entertaining brain training games. These are simple, easily replicable innovations for anywhere in the world that can make a genuine difference to the elderly.

And in the Netherlands, The Medical Delta Living Lab Care Robotics addresses the difficulty that start-ups in the healthcare technology sector often face in being able to test innovations with actual end-users in real life settings.

The ageing challenge will need more than pension reforms

Pension reforms aimed at increasing the eligible retirement age for full entitlements are becoming more apparent in government policy responses to the ageing challenge. However, these reforms have also been strongly resisted, including most recently in France, where union anger and national strikes saw the Macron government remove its proposed 'pivotal age' incentive aimed at raising the pension age from 62 to 64.

The OECD has also shown that in most countries people retire earlier than the actual/normal age needed (OECD average 63.5) for receiving a full pension. The exceptions are in countries such as Japan where the normal retirement age is 65 but the effective retirement age is around 70 for men and slightly under this for women.

Even with longer lifespans for both women and men, women still live on average longer than men do. And in terms of UN SDG5 they are considered to be particularly vulnerable to financial and health disadvantages as they age. In OECD countries, women receive 25% lower pensions than men at retirement age, 'mainly due to shorter careers, fewer hours worked and lower wages'. And in Japan where part-time work for women has continually increased for more than a decade and where the gender pay gap is one of the widest in advanced economies, poverty rates for older women are projected to rise significantly.

Also, the Japanese labour force has a [dual structure](#) of regular, full-time and seniority based workers and irregular workers (paid by productivity). Once retired, a worker is classified as irregular usually with a substantial drop in earnings. This is a complicated issue for employer organisations and older workers.

Being able to successfully extend the economic contribution of the elderly will in large part be dependent on there being flexible employment models reflective of [supportive and inclusive workplaces](#).

And HR policies and practices will need to accommodate both the physical capability of the elderly to perform particular jobs as well as the older person's desire to keep working – which could taper off quite quickly. At present, changing health needs and related health care costs as employees age, also make them more attractive as candidates for retrenchment rather than retention, with their main value proposition as a pool of casual cheap labour.

And despite the hype, it is not really clear what the introduction of [AI in the workplace](#) might look like in relation to older employees or how it could impact positively on their participation.

Out of sight out of mind – the need for companionship

Older people are very visible as volunteers in many communities – from helping out in schools, to raising funds for organisations such as Rotary, to playing a vital role in helping control raging bushfires. Yet once they enter aged care facilities, they seem to disappear from view. Their important role in helping to build social capital – that glue that keeps communities together – becomes largely forgotten.

In Australia, [40% of those in aged care receive no visitors](#) and unfortunately for many elderly throughout the world, loneliness and depression seem to be their only constant companions.

Yet friendship and support can still be offered through community-led intergenerational initiatives such as the [Old People's Home for 4 Year olds](#), which has been successfully trialled in the UK and Australia.

Over a 7-week period and under expert monitoring and evaluation, a group of pre-schoolers is paired with a group of older age people in care, bringing fun and healthy challenges and important companionship to both young and old.

And in rapidly ageing Spain, the [Amancio Ortega Foundation](#) has collaborated in the pioneering of intergenerational facilities in Galician municipalities, with one also including residences for the elderly.

Co-locating volunteer companions with the elderly can also bring cost-sharing benefits. Including, for young university students who receive free accommodation and meals at a nursing home in Sydney in exchange for [30 hours of companionship to residents each month](#) through the Gold Soul Companionship Programme.

And in the Swedish city of Helsingborg a mixed public housing project is underway that provides accommodation for young unaccompanied refugees next door to retirees generating an important source of support and companionship for both.

The benefits of intergenerational programmes for participants are substantial, and for the elderly in particular can bring greater opportunities for quality ageing. The challenge lies in embedding these types of initiatives more broadly in communities in a similar way to that of the global network of volunteer-supported mentoring programmes such as Big Brothers Big Sisters or Volunteering Matters in the UK.

And of course, companionship doesn't always have to be in human form. Pet therapy – from dogs to farm animals – has also been successful in providing company for the elderly in nursing homes, and reducing stress.

New mindsets and a new social contract for ageing

Countries everywhere are struggling with the challenge of being able to deliver sustainable, accessible, affordable, caring and socially inclusive health services that meet the different and changing needs and preferences of the elderly as they age.

And globally, there are also increasing calls for a radical change in public policies in areas such as health; wealth creation and industrial relations, to better align them with the realities of the world's changing demographics and deliver a fairer opportunity for all.

Such calls reflect the need for a new Social Contract (i.e. those 'arrangements and expectations, often implicit, that govern the exchanges between individuals and institutions') to better respond to both the challenges and the opportunities of ageing societies.

Where older people are seen as a source of economic growth and wellbeing, not a burden, and are able to age with dignity in caring communities rather than obliged to fend for themselves. Also, where support mechanisms are available to assist younger people to consciously take ownership of their respective ageing pathways and plan for their older years – particularly in terms of health and financial needs and housing preferences.

The EU and Japan are already on the path to creating a new social contract to build smart, sustainable, inclusive, human centred societies – where no one is left behind.

Their leadership and innovative responses to the challenges and opportunities of ageing societies offer much to the rest of the world. As do the contributions for framing policy thinking and initiative taking from organisations such as WHO, WEF, Global Coalition on Ageing, the European Parliamentary Technology Assessment Network and the Rathenau Instituut.

But first we need to build a collective appetite for change in the way we see our elderly in our communities and in our commitment to championing their wellbeing when they are at their most vulnerable.

After all, how golden our own older age will be, is likely to be dependent on it.