

AARP INTERNATIONAL / 10TH ANNIVERSARY EDITION

# THE JOURNAL

**Designing Your Life Course**

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Burak Cakmak has extensive experience in forging strong partnerships as a business strategist and sustainability expert for some of the largest, most prestigious retail companies and luxury brands in the world. With his expertise in the field of sustainable design, he is focused on guiding the academic programs into a new era where an emphasis on socially conscious and transformational design formulates the educational approach and training of the next generation of venerable creators.

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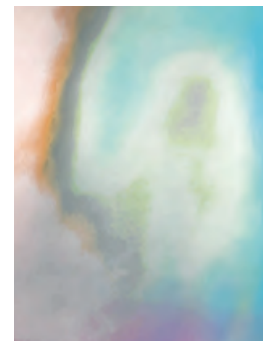
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**About the Cover:** As people live longer, the traditional approach to the life course is changing in new and imaginative ways. The holographic foil on the cover of this tenth anniversary edition of *The Journal* represents the shifting, vibrant, and often transformative nature of life that occurs as a result of longevity. The mirrored surface encourages interaction and introspection, as readers reflect on the possibilities of designing their own unique journeys.

AARP INTERNATIONAL

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January 2017

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## The exciting part is that we all have the opportunity to design our future.

**Josh Collett**  
VICE PRESIDENT, AARP INTERNATIONAL

If you were given five additional years of life, what would you do? With extended working lives benefitting employers and the economy—and possibly providing new opportunities for you—how would you respond? And in this new environment of changing population trends, what new policies and practices would you want to see?

In sum, what is your strategy for these new realities?

As the 21st century advances, many factors are shaping the landscape. And in this ever-changing world, perhaps the most significant trend is the shifting profile of the world's population. This, like nothing else, will transform our individual lives, along with our entire societies. The exciting part is that we all have the opportunity to design our future.

AARP is fostering efforts toward this reinvention. AARP, a social change organization with a membership of nearly 38 million people age 50 and over, is working to drive the conversation on aging. We work with all sectors of society, and global partners, to bring collective voice and action to issues related to aging and demographic change. Our focus is on enhancing the quality of life for all as we age in ways that benefit society and help people choose how they live and age.

This edition marks the 10th anniversary of *The Journal*, AARP's annual publication that takes a global view. It features leading global voices from government,

business, civil society, and academia that are embracing demographic change and challenging outdated models and attitudes. We highlight best practices, new technologies, and key innovations that are reinventing our institutions and communities. We also focus on a new design of the life course and the need to change perceptions of age and aging.

From the personal to the societal, countless questions concerning the future remain to be answered. One thing, however, is clear. Those that adapt will gain a competitive advantage. This pertains to businesses that utilize older workers, communities that adopt forward-thinking policies and individuals that maintain their health and skills.

In this edition of *The Journal*, our noted contributors cover broad themes and focus on different aspects of aging:

**Individuals.** With demographers predicting that more than half the children born today will live to 100, the traditional three-step life course of education, work and retirement is outdated. This requires changes in societal norms and also in how people internalize their own aging. Research has shown that people who have positive personal perceptions of aging live longer. Outdated stereotypes should be challenged and ageism needs to be confronted. People need to be empowered,

accepted and included, allowing them to be productive into their later years.

**Community.** As population aging and urbanization accelerate as leading global trends, ensuring the presence of supportive, accessible communities that support aging in place is paramount. In this edition, we feature Los Angeles and Hong Kong, two cities that are focused on making tangible improvement in both their built and social environments and are committed to including older people in the planning and development process. Both cities are members of the World Health Organization's Global Network of Age-friendly Cities and Communities. As of this writing, the AARP Network of Age-Friendly Communities, an affiliate of the WHO program, has recently surpassed 100 members.

**Workplace.** Employers looking to stay competitive are addressing expected skill shortages by transforming the workplace to extend working lives. Going forward, there will be a premium on talent; older workers, and even those already retired, offer experience and expertise necessary for sustainability and helpful for developing the next generation of workers. Further, the nature of work is changing. New technologies, policies and customs allow for flexible schedules that provide opportunities for increased productivity and greater morale for workers of all ages.

In this issue, by taking you to places ranging from France to New

Zealand to Zanzibar, we look at how governments are designing policies that support older citizens and that acknowledge their value and potential. We feature examples of community design from Australia and Japan that are addressing the needs of older people and serving as opportunities for social engagement and catalysts for economic growth. And we look at broader efforts, such as the importance of including older people in the United Nations' Sustainable Development Goals, while also reporting on the UN's Habitat III Conference held in Ecuador.

*The Journal* also covers the emerging Business of Aging, featuring companies that are designing new products and services to reach new markets. It is worth noting that the economic power and clout of older citizens is often an overlooked story. In her column, AARP CEO Jo Ann Jenkins describes the Longevity Economy as seen in the United States:

*"More than half of all consumer expenditures in the United States are made by people ages 50 and over, and the 106 million people in this demographic comprise a Longevity Economy that accounts for over \$7.6 trillion in annual economic activity. By 2032, that number is expected to rise to over \$13.5 trillion. This Longevity Economy is now larger than that of any country except the United States and China."*

If there is one constant in today's world, it is change. Technology is remaking how we work, live and play. Customs, behaviors and family structures are all adapting,



**We need to empower people as they age to help shape our future, for them and the generations to follow.**

while traditional generational distinctions are blurring. While these transitions yield great uncertainty, they also offer great promise. It has been said that the future has a way of arriving, whether you are ready or not. One issue that we can prepare for—that we know is coming—is demographic change.

People are living longer—and that is a good thing. Population aging is occurring in virtually every country, and the pace is accelerating. By Disrupting Aging—changing the conversation about what it means to grow older—we can spark solutions and tap resources that evolve the workplace, expand the marketplace and remake our communities. We also need to empower people as they age to help shape our future, for them and the generations to follow.

I think you'll find these exciting, evolving times captured in the pages of this latest edition of *The Journal*. ●



# DISRUPT AGING: THE GLOBAL IMPERATIVE

Jo Ann C. Jenkins | CEO, AARP

Last May, the World Health Organization (WHO) reported that life expectancy worldwide has increased by five years in less than two decades. This 5-year growth is the fastest rise in life expectancy since the 1960s. The average global life expectancy for a baby born in 2015 is now 71 for women and 69 for men. Women in Japan and men in Switzerland typically live the longest—86.8 years and 81.3 years, respectively.

The WHO attributes this growth largely to improvements in health care for children and to better availability of medicines, including those for malaria and AIDS. Perhaps not surprisingly, the biggest increase in life expectancy has come in Africa.

This exciting news adds one more chapter to the success story we call global aging. Our ability to live longer, healthier, and more productive lives is one of mankind's greatest accomplishments. Yet, the global aging story is about much more than demographics.

The way we are aging today is dramatically different from how it was a generation—or even a decade—ago. Being 50 or 60 or 70+ today is very different than

it was for our parents. Yes, we are living longer and in better health, but it's much more than that: we haven't just added more years to the end of life, we've extended middle age and, in essence, created a new life stage that has opened up a whole new world of possibilities for how we live and age. And we're just beginning to understand the full range and depth of those possibilities.

This is an incredibly exciting time. We live in a world where people ages 60 and over outnumber children ages 5 and under. Demographers predict that more than half the children born today will live to 100—and some researchers believe that the first person who will live to the age of 150 has already been born.

But it's not just about numbers. United Nations Secretary-General Ban Ki-moon has observed that “the social and economic implications of this phenomenon are profound, extending far beyond the individual older person and the immediate family, touching broader society and the global community in unprecedented ways.”

People throughout the world are beginning to understand this. Entrepreneurs and innovators are

## It is time to coalesce around the progress we have made and create a movement to “disrupt aging”—that is, to change the conversation about what it means to grow older.

creating an incredible array of products and services targeted to older people. Advances in research and technology are driving innovation in virtually every field that affects our ability to live well as we age. Science is making longer lives possible—now we have to figure out what we’re going to do with them.

Even as all of these exciting developments are changing the way we age, most conversations around aging still view it as a problem to be solved. And the solutions are all an effort to avoid the “international crisis” that is global aging.

It’s a premise that is absolutely and fundamentally wrong, and millions of people are proving it wrong every day. The conversation can’t be about how to avoid a crisis; it needs to be about how to take advantage of the opportunities we have so that we as individuals and as nations can thrive.

Our cultures, institutions, social supports, and infrastructures have not kept pace with the advancements in the way we age that science, technology, and innovation have made—and continue to make—possible. That’s what the conversation is about.

We need to get rid of the outdated beliefs and stereotypes about aging and spark new solutions so that more of us can choose how we want to live and age. That means

replacing old models that don’t work with new ones that do and updating those that do work so they may continue to work in the future.

It also means that we have to evolve our thinking about what it means to grow older and what it’s like to be older.

Because of the work of aging-related organizations and many insightful leaders throughout the world, we have made tremendous progress when it comes to global aging. The numbers I cited earlier bear this out, but we still have a long way to go.

Because we are just now beginning to see the opportunities that aging societies offer, it is time to coalesce around the progress we have made and create a movement to “disrupt aging”—that is, to change the conversation about what it means to grow older.

As CEO of AARP, I want to use the power and voice of the organization to do just that. And that’s why I wrote my book, *Disrupt Aging: A Bold New Path to Living Your Best Life at Every Age*.

When I talk about Disrupt Aging, I’m talking about

- embracing aging as something to look forward to, not something to fear;

- seeing it as a period of growth, not decline;

- recognizing the opportunities, not just the challenges; and, perhaps most importantly,

- helping older people see themselves and others as contributors to society, not burdens.

I won’t pretend that we aren’t affected by the aging process—we are. And I won’t proclaim that all people are living longer and living better—they aren’t. In Sierra Leone, for example, life expectancy is only 49 for men and 50 for women. But I am here to tell you that it’s time to put aging in the proper perspective.

There are four distinct shifts occurring, all of which have an impact on our societies.

First is the **demographic shift**. Put quite simply, there are greater numbers of older people living long and healthy lives. Over the past 100 years, we have added over 30 years to the average life expectancy. In 2015, more than 1.6 billion people in the world were ages 50 and older; by 2050, that number will double to nearly 3.2 billion people. In the United States, the fastest-growing age group is people 85+; the second fastest is people 100+—and the majority of them are women.

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Second, there is an **economic shift**. More than half of all consumer expenditures in the United States are made by people ages 50 and over, and the 106 million people in this demographic comprise a Longevity Economy that accounts for over \$7.6 trillion in annual economic activity. By 2032, that number is expected to rise to over \$13.5 trillion. This Longevity Economy is now larger than that of any country except the United States and China.

Participants in the Longevity Economy are as diverse as the population as a whole, with people from all regions, races, professions, and pursuits—united only by their age. Collectively, they are active in the workplace. They stay employed longer, earn wages, spend money, generate tax revenue, and produce economic value for an extended period of time. They also drive entrepreneurship and investment, and are enthusiastic consumers of leisure activities who also like to spend money (over \$50 billion a year) on their grandchildren.

Third, there is a **behavioral shift**. Older people are reinventing work, searching for purpose, embracing technology, and opening themselves up to new experiences like never before. Almost 7 in 10 boomers plan to work full or part time after age 65. Boomers—the first of whom turned 70 this year—spend more time online than even millennials. And 8 out of 10 boomers consider a number of brands before deciding to purchase a product or service.

And, fourth, there is a **cultural shift**. Traditional generational distinctions are blurring, fueled by intergenerational experiences, intergenerational relationships, and

intergenerational culture and entertainment. Over 49 million Americans live in households with three or more generations. When millennials are asked who their best friends are, 85 percent of them name a parent. And, we're seeing more and more entertainment options geared toward people of all generations.

We have also come to realize that, in many cases, people will spend more time and resources caring for their aging parents than they did raising their own children. If that's not a culture shift, I don't know what is.

All of this is giving us a new perspective and creating new opportunities. We need to disrupt aging to help people confront their challenges and pursue their opportunities to the fullest extent possible. That requires changing the way we talk about aging from something we fear to something we embrace. Disrupt Aging is about challenging the old stereotypes and attitudes about aging and sparking new solutions in order for more people to choose how they want to live and age. It must involve individuals, private-sector organizations (both NGOs and for profit), and government at all levels.

At AARP, we truly believe that age and experience can expand life's possibilities for every member of our society. When we disrupt aging and embrace it as something to look forward to, rather than something to fear, we can begin to discover the real possibilities for becoming the person we've always wanted to be—and we can build a society where all people are valued because of who they are, not judged by how old they are. ●



A handwritten signature in black ink that reads "Jo Ann C. Jenkins".

**Jo Ann C. Jenkins**  
CEO, AARP

# BLEU, BLANC, ROUGE, ET ARGENTÉ!

**Pascale Boistard** | MINISTER OF STATE FOR ELDERLY PEOPLE AND ADULT CARE,  
MINISTRY OF HEALTH AND SOCIAL AFFAIRS, REPUBLIC OF FRANCE



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**The goal of the French administration is to create cohesive age-related policies, establish a global framework, and ensure that all citizens retain their autonomy.**

Both the United States and France are facing the challenges that come with aging populations. More broadly, countries around the world are experiencing the good fortune that people are living longer, and they are living longer in better health. For the first time in the history of human civilization, people aged 65 and older will outnumber children under age 5.

The senior revolution that we will experience in the decades to come will force us to act. We must imagine a new world of peace among all ages, where all generations can live together in harmony. The challenge is even greater because we, both in France and in America, live in cultures that put a premium on the qualities and values that we mainly associate with youth. A world where seniors have a role is one where they are considered citizens before being considered elderly—a world that erases, as much as possible, discrimination related to age. We're looking closely at what the United States is doing for its seniors—and, of course, at AARP, which is a center for innovation—even if our cultures of public

policy and political process mean that our solutions do not always follow the same path. France and the United States have had different approaches in their history. We chose in France, since 1945, a pay-as-you-go system, where working people contribute for pensioners, it is the heart of our solidarity system. I believe, however, that we can mutually enhance our approaches. That is why I am so pleased by the dialogue that has been cultivated on these pages. Our two countries have been allies since the birth of the United States; the bonds that unite us are grounded in the history that we share and the common values that we defend.

#### **A Demographic Shift in France**

France is undergoing a process of demographic transition, characterized by an increase in the longevity of the French people and the continuous growth of the eldest age groups. There are currently more than 15 million people ages 60 and over; there will be 24 million in 2060. The number of those over 85 will almost quadruple by 2050. In 2060, 1 out of every 3 people will be older than 60.

While for several years our country has been experiencing one of the highest birth rates in Europe, we don't want to view this "senior revolution" as a sign of decline but, rather, as the opposite: it is a sign of considerable progress, as it is a result of an increase in life expectancy, enabling a large number of French people to live longer and in better health.

For the French government, which guarantees intergenerational support through its public pension system, established in 1945, it has become important to meet the needs brought about by the aging population as well as the needs of people with disabilities.

The response to the senior revolution challenge must be universal: everyone is affected by age. Although aging-related policies have been constructed in stages and often in isolation, the goal of my administration is to make them cohesive, to establish a global framework, and to ensure

## Society must adapt to be inclusive of seniors—they are the backbone of our social and civic fabric.



1 French president Francois Hollande (center) joins Minister Boistard (second from right) and Marisol Touraine, Minister of Social Affairs and Health (third from left) and panel of mayors during 'Blue week,' the national week for pensioners and older people. Palais de l'Élysée, October 2016

the equality of all citizens who are at risk of losing their autonomy.

Society must adapt to be inclusive of seniors—they are the backbone of our social and civic fabric, especially considering their essential contributions to family solidarity (retirees are often enlisted to care for their grandchildren) and to civic engagement (many

community volunteers are retirees). In essence, we can judge a society based on how it treats its elderly. Aging is too often associated with illness, dependence, and exclusion. The challenge of our century will be bringing generations together to build a positive and renewed image of our seniors. Adapting our society to aging means establishing a

societal model founded on brotherhood and solidarity.

In France, official policies related to adapting society for an aging population are based on three essential pillars:

1. Foresight to prevent the loss of autonomy, at both the individual and the collective levels: Preventing and detecting risk factors that contribute to the loss of autonomy is critical and allows, on the one hand, for the proposal of adapted prevention programs when necessary and, on the other hand, for the facilitation of access to equipment (support bars, walkers, etc.) designed to delay the loss of autonomy. From a collective point of view, it is a question of anticipating, rather than enduring, the aging of our fellow citizens so that its effects on autonomy are not inevitable.

2. Adaptation of our society: Age should not be a factor for discrimination or exclusion. We need to change views on aging. This depends not only on forming new social relationships by bringing generations together but also by reaffirming seniors' rights so that they are not ignored. It's by rethinking public policies—specifically those related to housing, urban planning, and transportation, but also those related to the rights of the elderly and their civic engagement—that we can achieve a more unified and inclusive society. For this to work, the engagement must be shared and involve all stakeholders: the economic sector, all aspects of the government, and also civil society (with caregivers who mobilize to assist their loved ones when they lose autonomy).

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3. Support for the loss of autonomy: The priority is to allow those who wish to live at home to do so, in good conditions; this is what seniors prefer. The recent reevaluation by law of the senior allowance helps improve their opportunities to receive a better support at home. The measure allows our seniors to make choices about their lives with dignity. Caregivers, the key players in inter-generational solidarity, deserve to be acknowledged by society. They need to be allowed to take time off, and they also need to be provided with additional home assistance. Society as a whole needs to recognize caregivers' value.

### **France's Position within the Silver Economy**

But the senior revolution will also lead to economic development and the creation of companies that meet the needs and goals of the elderly. The longevity of the French population represents a large potential not just for the service sector but also for industrial job creation.

It's an industry that will permeate all markets. In the "Silver Economy," economic stakeholders will need to be able to innovate to improve quality of life and increase life expectancy. Companies, regardless of their industry, will also need to adapt their offerings to the aging population. Doing so will create a link between generations that no longer interact. The French Tech city certification program is also focusing on the Silver Economy by

offering seniors innovative solutions at the cutting edge of technology.

The Silver Economy presents an opportunity to support the elderly in their life goals. Ninety percent of elderly people in France would like to grow old in their homes. Often, that home is associated with memories and emotional comfort, but it is also a place associated with life. The development of the Silver Economy is lowering the costs related to making adaptations in the home for greater accessibility, which amount to accommodations or home security. Sometimes, only small interior renovations are needed to allow an elderly person to stay in his or her home.

The Silver Economy is also a chance to bring research and innovation to life in order to develop useful solutions for the well-being of vulnerable populations. To that end, Living-Labs apply laboratory research to everyday life to test services, tools, and new ways to use existing products on a large scale.

As aging is a global phenomenon that progressively affects all economies, it is necessary to consider it, anticipate it, and to make it an economic driver as well as an engine for cooperation and social progress.

I would like to thank AARP for allowing me to express myself in the pages of this journal, and I would also like to wish all of its readers a fulfilling life of projects and undertakings as they continue to work together to disrupt aging. ●



**Pascale Boistard**

In March 2008, Pascale Boistard was elected Deputy Mayor of Paris, responsible for the integration of non-EU nationals. She was elected to parliament in 2012, becoming secretary of the Foreign Affairs Committee. She was appointed Minister of State for Elderly People and Adult Care in February 2016.

# GLOBAL GOALS AND PERSONAL GOALS

Richard Curtis | WRITER, FILMMAKER, AND UN SUSTAINABLE DEVELOPMENT GOAL ADVOCATE



PHOTO: PROJECT EVERYONE



**A renowned writer and filmmaker reflects on the importance of setting and pursuing goals that aim to create a more just and sustainable world.**

I've just turned 60. It's the age my dad was when he retired. The run up to it was an exciting but also grueling few weeks: I promised my family that I'd take a month—and 15 pounds—off. The first promise was made to relish what a life we've got and the second was made to ensure that I enjoy a little more of it and don't die too soon.

And, of course, it set me thinking about how I've spent the years so far—and how I hope to be useful in the years to come.

Just to introduce myself quickly: I've made a living by writing for television in the United Kingdom—and then writing a lot of slightly romantic and slightly comedic films that have succeeded in making Hugh Grant very rich and very unhappy. Films like *Four Weddings and a Funeral*, *Notting Hill*, *Bridget Jones' Diary*, *Love Actually*, and, my most recent and favorite, *About Time*—it didn't do very well (except in South Korea), but I think you might like it, particularly the scene on the beach at the end. To make up for giving the world all this sugary stuff, I've also spent half my life trying to raise money to save lives and have campaigned to end extreme poverty. It's this bit of my life I'd like to reflect on; I'll tell you my gossip about Dustin Hoffman and Judi Dench another day.

I didn't even think about doing anything for what you might loosely call "charity" until I was 30; it was in reaction to a terrible famine in Ethiopia and the Sudan for which a group of pop stars, led by Bob Geldof, did the Live Aid concerts in London and Philadelphia. This set me thinking, and not long afterward I found myself on a fact-finding mission to Ethiopia. And the first fact I found was very simple: people just like me and you—like my parents, like my friends, like my brothers and

sisters—were dying, unnecessarily, through no fault of their own. Fact number two was that the money that people across the world had given was actually in the business of saving those lives, so I came home to do a little more of it.

I came home and—with a lot of friends and support, especially from the BBC—started an event called Red Nose Day, which has been going on in the United Kingdom for 25 years and now in the United States, with NBC and Walgreens as partners, for 2 years. So far, we've raised more than \$1.5 billion, which has been spent on brilliant projects across the world, including places in the United Kingdom and the United States.

By the way, this initiative included some very interesting projects to do with older people. In the United Kingdom we started to hear horrible stories of elder abuse—the mistreatment and exploitation of vulnerable older people. I remember going to see a government minister about it and asking what they were doing. He said that it was tricky, because they actually had very few facts and figures. They said the most useful thing we could pay for was finding out how prevalent it was, as they had no idea if it was 30,000 cases a year or 300,000. We paid for that bit of work—turns out, it was 300,000—and we've been fighting it together ever since.

So, I'm a huge believer in individual charity: I believe in our ability, as individuals, to help change the lives of strangers. But this is actually an article about politics. I remember Bob Geldof saying to me that he made more money in 20 minutes having a cup of tea with President Mitterrand of France than he did in the whole of the huge fundraising efforts of Live Aid—because the French aid budget went up by 0.01 percent as a result.

I slowly started to learn about the Millennium Development Goals (MDGs), the United Nations' (UN's) masterplan to tackle the many aspects of extreme poverty, and realized that all the fundraising work I'd been doing was in the context of something much larger and more historic. And these were achievements that I, as a member of my generation, didn't really realize.

To put it bluntly—as Bill Gates has told me—in some ways, this has been the most successful generation in the history of mankind. Between 1990 and 2015, the number of children dying before their fifth birthday was cut by more than half, an unprecedented achievement in saving lives. In the same period, the number of people living in extreme poverty—on less than \$1.25 a day—was also more than halved. And look at malaria: In 2000, the disease was killing a million kids a year.

# THE GLOBAL GOALS

For Sustainable Development



IMAGE: UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Now that's down to something like 290,000, and in Sub-Saharan Africa the malaria death rate has dropped by 57 percent since 2000—astonishing progress by anyone's standards.

Because we hear so much about the terrible things that happen in the world, we sometimes don't get far enough back from things to see the slow but extraordinary progress in the fight against unnecessary deaths and inequalities. The MDGs—although they obviously weren't the sole driver of change—were one of the big, formal, official, very useful prompts that got things done. I think of it a bit like that old story about the tortoise and the hare. The hare is all the flashy, often terrible newsworthy stuff that gets all our attention, but meanwhile

the wonderful tortoise of slow and amazing progress moves powerfully on to victory.

So now, in the evening of my life, I've decided to dedicate as much of my time as possible to trying to make the sequel to the MDGs famous and thereby help ensure they are financed and effective. These new Goals—which I like to call the Global Goals but are officially the splendidly and accurately entitled Sustainable Development Goals—were launched by the UN in September 2015.

Setting the new Goals involved the largest consultation process in history to get the public's views on what they should contain. The final Goals have three extraordinary aims: to make us the first generation to end extreme poverty, the most

determined generation in the fight against inequality and injustice, and the last generation to be threatened by climate change.

I, along with many of my colleagues from all walks of life, devoted a year or so to figuring out how to communicate these new Global Goals in ways that will make people see their relevance to all the things we feel passionate about. After the Goals were announced at the UN in 2015, our ambition was to get 7 billion people in seven days to at least become aware that these goals existed and mattered.

Of course we failed, but by hook and crook—through TV, radio, text message, churches, pop music, lessons in school, social media, and good old newspapers—we didn't

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## With these goals we have an epic opportunity, but achieving them will take everyone.

do badly, reaching 40 percent of the world's population, around 3 billion people, in just a week.

But now, of course, the real work begins: to try to help people really understand these goals, care passionately about them, and hold their leaders accountable. You can't fight for your rights unless you know what they are, and the new goals are a sort of Declaration of Planetary Rights, the one masterplan on the table to make sure the lives of our children—and their children—happen in a better world than ours. We need to make sure that everyone knows these goals apply to every single country and that when world leaders signed up to them, they promised to ensure that no one is left behind—no matter who they are or where they live.

And, of course, all this matters for older people too—not only because my generation still holds so many of the reins of power, but because people are living longer than ever before, and that brings both opportunities

and challenges. Delivering on the goals will improve life for people of all ages now and for generations to come, because inequality and poverty in later life directly relate to what we went through when we are young.

With these goals we have an epic opportunity, but achieving them will take everyone. Goal 17, the last one, is about partnership, calling on everyone to get involved. Whatever you do, wherever you are, I hope that you'll find a moment to be curious about this genuinely positive plan and see if there is a way of applying it to the business you work in, the life you lead, and the families and communities you live with.

President Kennedy didn't say, "Let's get halfway to the moon and then turn back." Usain Bolt doesn't run a fast 50 meters and then stop short. The Millennium Development Goals saved millions of lives; the new Global Goals can go even further and change the lives of everyone. Do check them out. ●



**Richard Curtis**

Richard Curtis is a screen writer and director, responsible for films such as *Four Weddings and a Funeral*, *Notting Hill*, *Bridget Jones's Diary*, *Mr. Bean*, *Love Actually*, *The Boat That Rocked*, *About Time* and most recently *Trash and Esio Trot*. In 2014 Richard founded Project Everyone. Working alongside the United Nations, Project Everyone helped to launch and promote the Global Goals for Sustainable Development, a series of ambitious targets to end extreme poverty, fight inequality and injustice and combat climate change by 2030. As part of this endeavour Richard produced the Global Citizen Festival, live from Central Park, which was broadcast in 150 territories worldwide. In January 2016 Richard was formally appointed as a UN Sustainable Development Goals Advocate alongside 16 others including Forest Whitaker, Paul Polman and Shakira.

THE BIG PICTURE

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# THE BUSINESS CASE FOR OLDER WORKERS

Shunichi Miyanaga | PRESIDENT AND CEO, MITSUBISHI HEAVY INDUSTRIES, LTD. (MHI)

Through a variety of innovative initiatives, a leading global industrial firm acknowledges and seeks to leverage the expertise of its older, skilled workforce.

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**Globally, Japan has the highest percentage of people ages 60+ and one of the highest life expectancy rates in the world. Although aging is often viewed as a cause for concern, I believe it presents a great opportunity for the world of business and work.**

Aging is one of the ultimate facts of life. Everyone ages, but not all companies leverage the opportunities and potential that workers over a certain age offer them.

Across advanced countries, including the United States and Japan, the number of people reaching retirement age is rapidly increasing. Globally, Japan has the highest percentage of people ages 60+ and one of the highest life expectancy rates in the world. Although aging is often viewed as a cause for concern, I believe it presents a great opportunity for the world of business

and work. Japan is often cited as an example of a country that can show the path ahead for other countries in this regard.

As the CEO of Mitsubishi Heavy Industries Group (MHI), one of the world's leading industrial firms, I count as among my most pressing concerns the impending skills gap that employers will face in the coming years. As increasing numbers of workers reach retirement age, many companies will face a loss of skills and experience. This gap is particularly alarming in

the manufacturing sector: a recent study suggests that in the next 10 years, some 2 million US manufacturing jobs will be left unfilled due to a lack of skilled candidates. Japan faces similar shortages. MHI is a significant player in the US manufacturing market. We have \$7.5 billion in annual revenues and 7,300 employees across 30 states, making the United States our single largest market outside Japan. Given MHI's strong presence in Japan and the United States, worker shortage is certainly an issue we must address promptly.

Right now, we are rapidly expanding the scale of our global business and as we do, we anticipate tackling large-scale engineering projects around the world that pose complex challenges and demand increasing levels of expertise. Naturally, we need to ensure the availability of the necessary skills and expertise to undertake such projects in future. In particular, we see an urgent need for people with experience in such fields as project planning and risk management.

As a solution, MHI is working to build on the vast experience and expertise that senior workers and retirees can provide. Expertise is the future of our company, and leveraging older skilled workers is good for both business and society.

To this end, MHI has established MHI Executive Experts, a new company specifically for workers who are at or above retirement age. It was launched in July 2016 with an initial base of 300 employees, which we hope will grow in the coming years. The new company recruits various veteran MHI employees, including engineers, managers, and executives. It then dispatches these specialists to

## **Expertise is the future of our company, and leveraging older skilled workers is good for both business and society.**

provide support and advice on our current projects and businesses.

MHI Executive Experts is still in its initial stages. We are presently arranging for older workers to leverage their expertise for engineering, procurement, and construction project management. This is a major part of our business, as it ranges from the construction of power plants to the building of transportation systems. In the future we plan to expand the scope of MHI Executive Experts' activities to include the sales, legal, and ICT fields. Our senior experts will provide a wide variety of different services—from consultation to monitoring, training, and development.

Much of our work is not about mass manufacturing but rather the production of a single large-scale product. Whether we are delivering turbines or commercial ships, our products require high levels of expertise and craftsmanship. Managing the delivery of such large-scale products is no easy feat; it requires people who have considerable experience and a proven track record.

In particular, it is notoriously difficult to train people for project leadership roles, where one person must oversee every step of a venture, from purchasing the necessary parts to ensuring the product

is delivered on time. When people without this experience are asked to take on such leadership roles, it can increase the risks for the project and put unfair pressure on those team members with less experience. By providing a competent pair of hands, our senior experts can significantly reduce risk and strengthen our management structure.

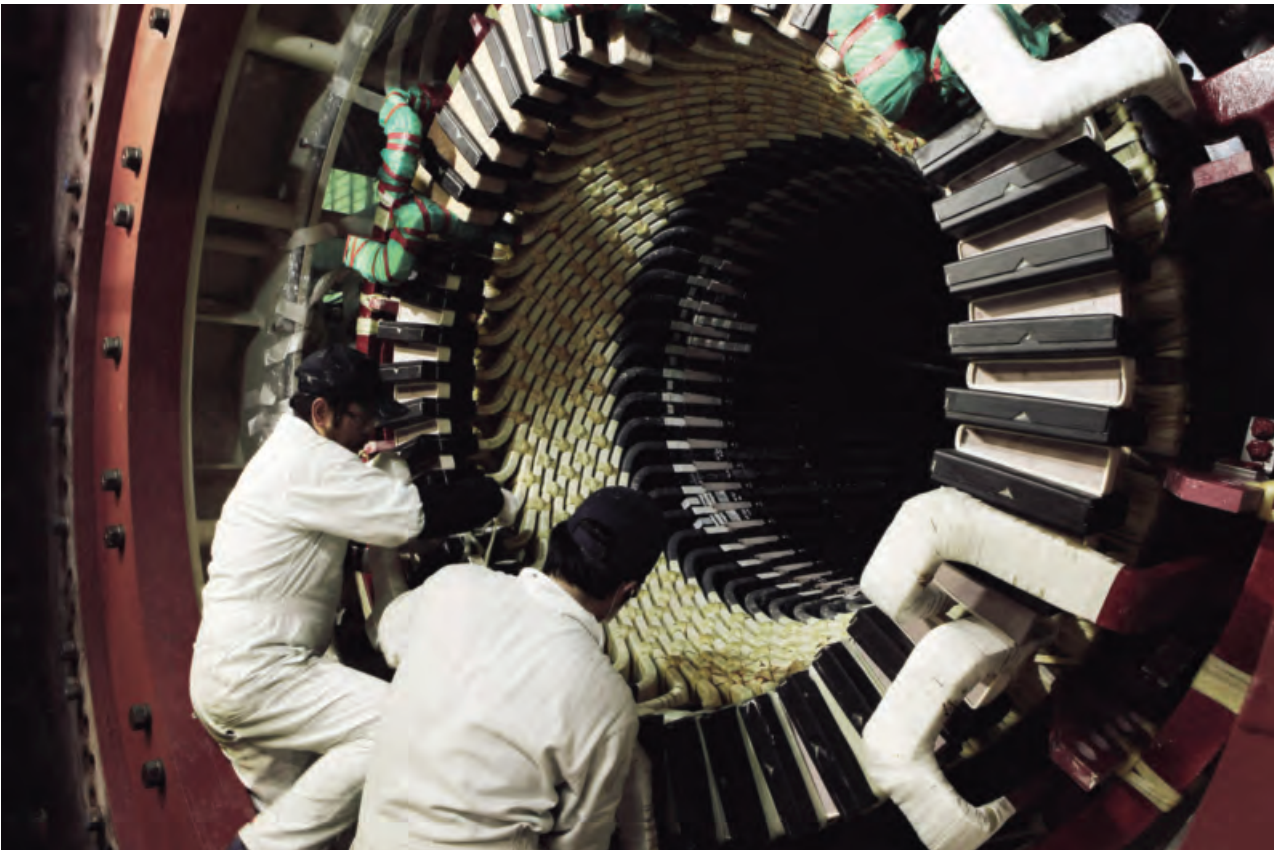
MHI's older experts not only provide much needed expertise and know-how, they also give on-the-job training and guidance to newer recruits, helping foster the next generation of specialists. In this way, essential manufacturing skills and craftsmanship can be retained, bringing vitality to the future of manufacturing.

In attempting to utilize the skills and expertise of senior employees we are keen to avoid a "one-size-fits-all" approach, we also seek to ensure that people are able to choose their level of involvement. For this reason we have established a structure that allows for both full- and part-time work, as well as provisions for those who are unable to work on a full-time basis or move to different locations.

Participants can also be selective about the nature of the work they do, with options ranging from training younger workers to more proactive project management and

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MHI Executive Experts will leverage older workers' expertise for engineering, procurement, and construction project management.



coordination on both large- and small-scale projects. We are also putting measures in place to ensure that there is a smooth transition process for those nearing retirement age who might consider joining this team of specialists.

Working on this initiative has convinced me of the strong business case for taking on older workers and people of retirement age. The benefits have been far ranging and sometimes unexpected. For example, by bringing in such experts, we have been able to significantly improve communication and cross-functionality within the company. Senior experts often serve as a bridge between departments, joint ventures, and business areas, bringing together different strengths and experience and creating a whole that is larger than the sum of its parts.

We are exploring how to expand these efforts to go beyond MHI and benefit the wider society and communities we work in. For example, we are now considering how we can bring in senior experts from other businesses and industries to provide benefits for our company. We are also aware that many of our retired workers have invaluable experience working in specific countries, regions, and industries. By using this knowledge base, we hope to

improve the communication and understanding we have with our customers globally.

In rapidly aging Japan, there is still a strong wish to maintain active lifestyles after retirement. In our work for MHI Executive Experts it has become clear that retired employees want their skills to be put to good use, and they want to be able to share their experience with the next generation of employees. This can be an empowering and motivating process for all concerned, creating a win-win scenario for younger and older workers alike.

With our experience through MHI Executive Experts we hope to show the significant benefits older workers bring. Looking ahead, it will be essential for all companies—in Japan and elsewhere—to establish an effective system for managing the processes of retirement and skills transfer. MHI will seek to become more actively involved in the conversation about aging and knowledge transfer, and will look for guidance and partnership from companies and organizations worldwide to help better leverage older workers, address skills gaps, improve knowledge transfer at global and local levels, and ultimately move the world forward. ●



**Shunichi Miyanaga**

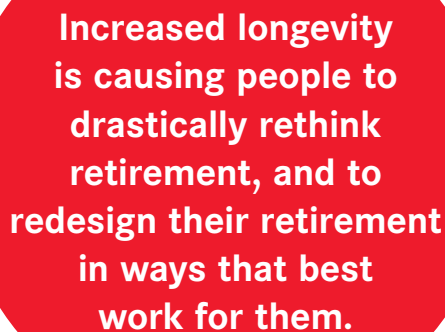
Shunichi Miyanaga is President and CEO of Mitsubishi Heavy Industries, Ltd. (MHI), where he leads one of the largest manufacturing and engineering companies in the world with over 80,000 employees worldwide, consolidated sales of \$40 billion, and products ranging from power systems, chemical plants, aircraft, ships, to industrial machinery.



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# THE 100-YEAR LIFE

Lynda Gratton and Andrew Scott | CO-AUTHORS, THE 100-YEAR LIFE

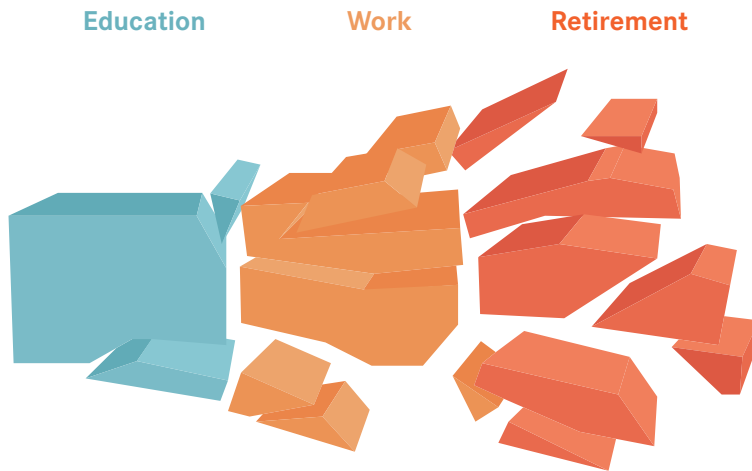


**Increased longevity is causing people to drastically rethink retirement, and to redesign their retirement in ways that best work for them.**

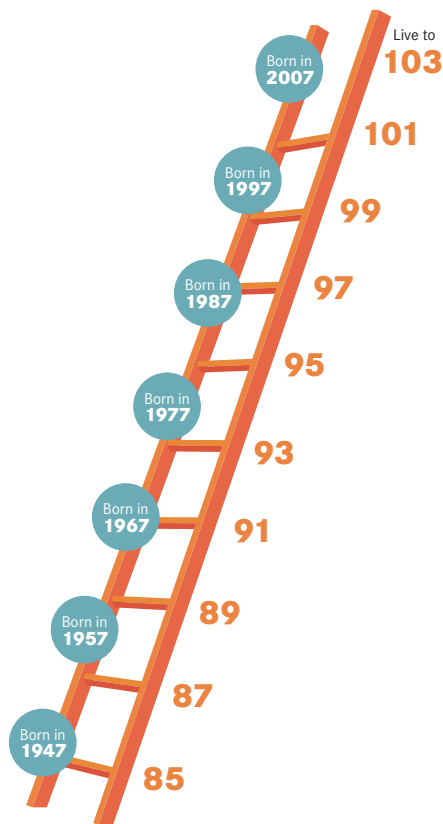
People are living longer. In an actuarial sense it really is true that 70 is the new 60, with 70-year-olds today having the mortality rates that 60-year-olds had five decades ago. In 1950 a 71-year-old could look forward to 10 more years of life; now a 79-year-old can do the same. Mortality rates for women in their 80s have nearly halved over the same period. Indeed, the fastest-growing age group is those aged 100 years and older.

This increased longevity is leading to changes at all stages of life, but its impact is being felt most immediately around retirement. People are rethinking what they do before retirement, when they retire, and how they spend their time after retirement. We are witnessing a large-scale social experiment as people try to redesign retirement in a way that works for them.

**THREE STAGES OF LIFE**



**BEST PRACTICE LIFE EXPECTANCY**



COPYRIGHT: ANDREW SCOTT AND LYNDA GRATTON "THE 100-YEAR LIFE"

**Younger for Longer**

Longevity extends the arc of life as aging occurs over a longer period and at a slower pace. As life extends, behavior shifts so that certain milestones are reached later in life. Longevity is not about being older for longer—it’s being younger for longer. In 1960, for example, 50 percent of Americans were married by age 21—now that occurs at 28. Older ages are also changing and rejecting age stereotypes and norms—the Rolling Stones are an average age of 72!

This stretching of life has profound implications for retirement. If people live longer but don’t move the milestone at which they retire, then retirement inevitably gets longer and longer. While this may sound appealing, it creates serious financing problems. One solution is to work for longer, and that is increasingly what Americans are doing—today 18.2 percent of Americans over 65 are still working compared with 12 percent in 1994; 7.9 percent of those over 75 are working, compared with 5 percent in 1994.

**Redesigning Retirement**

The shifting of life’s milestones is not the only impact of longevity. Just as increasing longevity in the 20th century led to the creation of the new stages of teenagers and retirees, so today new life stages are emerging, particularly around retirement. Traditionally, retirement was a shared phenomenon, experienced at the same age, and taking the form of a sharp stop to working life followed by a few years of quiet leisure.

As life extends, these assumptions look increasingly outdated. There are certainly many who are still trying to follow the traditional path—although they

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face the problems of insufficient finances and the possibility of a prolonged period of inactivity and boredom. Others are simply postponing the age at which they retire—they are working full time, are negotiating shorter and more flexible working hours, or have shifted to a new job in a different sector.

Some are making a more radical shift: they are starting their own businesses. Indeed, entrepreneurs are now more likely to be over 55 than under 34, with those ages 55 to 64 showing the fastest growth. Most are not building a business dynasty, they are keeping active, earning money so as not to touch their retirement savings, and aspiring to a better work–life balance. Or they are taking the opportunity while fit and healthy to go through an “explorer” stage, traveling and pursuing long-term life goals away from work.

So retirement is becoming a hazy concept. The age at which it occurs is no longer fixed but variable; it is less a hard stop and more a moving point on a spectrum between full-time work and no work, and it is morphing into many distinct stages—a working stage, a working part-time stage, an entrepreneur or explorer stage, and the traditional quiet end-of-life stage.

What is striking is how these new possible life stages for the over 60s, especially of entrepreneurship and exploration, are also being adopted by those in their 20s. The traditional three life stages of education, work, and retirement, are pinned down by age. As we live longer and choose different sequences from multiple possible stages, age and stage become disentangled. This results in an “age-agnosticism” and surprising similarities across age groups.

**Retirement is becoming a hazy concept. The age at which it occurs is no longer fixed but variable; it is less a hard stop and more a moving point on a spectrum.**

#### **Preparing for the “New Retirement”**

Traditionally, preparing for retirement has meant getting finances and savings right. Yet as retirement shifts and changes, it will be crucial to invest in a broader portfolio of assets, including intangible assets. Those who work after the traditional retirement age, whether in the same role, switching to a different sector, exploring, or building a business, must invest in intangible assets. That means actively building “productive assets” in the form of new skills and knowledge; investing in “vitality assets” by maintaining health and relationships; and, perhaps most important as retirement becomes a series of stages characterized by change and transition, investing in “transformational assets”. These are the characteristics that keep us all flexible and capable of change as we adapt to new circumstances. Retirement is no longer about consuming wealth and leisure time—it is increasingly about building a much broader portfolio of assets including the non-financial.

### New Risks

There is no doubt that these changes to retirement are an exciting opportunity. But they come with new risks. Growing longevity means we all face a risk of living for longer than we anticipated, and although on average we are living healthier for longer, there is an increased risk of being incapacitated for longer. Finding new financial products to protect against these risks is paramount.

These new forms of retirement also require a flexibility that is not traditionally associated with older people. Remaining flexible over long lives requires “juvenescence”—something most people have when they are young, but now need to retain into later life. Holding on to this openness to change creates the possibility of facing new challenges for which there is little prior experience. For instance, although divorce rates are falling overall, they are rising for those in their 50s, 60s, 70s, and even 80s. The traditions of family life are also changing as longevity brings the reality of four-generation households, for which there are few social norms about roles and responsibilities.

### The Retirement Agenda

As this social experiment continues, it is inevitable that what people want will come into conflict with the rules and norms established by an earlier, more standardized form of retirement. Many companies are resistant to retaining workers after a fixed retirement age or are unwilling to experiment with more flexible working hours. Governments are struggling to shift the parameters that define a standardized retirement process when they need to give people greater flexibility about the choices they want. They also face

a serious challenge in dealing with growing inequality in terms of life expectancy, health, and access to a pension. They will be tasked with finding a system that supports those with few resources, while providing flexibility for those with greater income and options to construct the retirement they desire.

Retirement was one of the greatest inventions of the 20th century and was key to the creation of a three-stage life of education, work, and retirement. That begins to morph as people live for longer. So we are now moving into a period of experimentation. Certainly firms and governments will try to simply change the parameters of the three-stage life, but over time they should realize that there is no longer a simple concept of retirement. It is clear that flexibility and choice are key if the concept of retirement is to evolve and grow in a way that actively supports our longer lives. ●



**Lynda Gratton**

Lynda Gratton is Professor of Management Practice at the London Business School, where she teaches an elective on the Future of Work and directs an executive program on Human Resource Strategy. Lynda is a fellow of the World Economic Forum, is ranked in the top 15 in the world by 'Business Thinkers 50', and was named the best teacher at London Business School in 2015.



**Andrew Scott**

Andrew Scott is Professor of Economics at London Business School and a Fellow of All Souls College, Oxford University and the Centre for Economic Policy Research, having previously taught at Harvard University and London School of Economics. He has served as an advisor on macroeconomics to a range of governments and central banks and was Non-Executive Director of the UK's Financial Services Authority.

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# A NEW AMERICAN CHAUTAUQUA

Dr. Bill Thomas | AUTHOR, ENTREPRENEUR, MUSICIAN, TEACHER, FARMER AND PHYSICIAN

**A turn-of-the-century social movement proved the perfect model for the Age of Disruption Tour, that seeks to change the conversation about aging around the US.**

We live in a youth-obsessed society that is, inevitably, growing old. Much of what we have been told about aging is wrong and, for millions of people, long-held ageist attitudes are increasingly coming into conflict with the way we are experiencing aging in our daily lives. If handled with care, this cultural tension can “disrupt aging”—in other words, sustainably realign aging-related cultural attitudes and practices. Success in this endeavor requires us to focus on three core virtues:

1. Be Local: Aging is experienced as a personal phenomenon that unfolds in a local context.
2. Be Artistic: Social change moves at the speed of narrative, and the tools of creative expression are best suited to creating and sustaining new stories.
3. Be Persistent: Creating change is a cumulative process that rewards consistent efforts that span years and even decades.

Through my personal experiences and my career as a physician over the past three decades, I have come to believe that a society’s health and well-being depend greatly on cultural beliefs and practices. This belief has led me to experiment with a wide range of strategies that have begun to change the conversation about aging in important ways. One such strategy grew out of an unusual source: a turn-of-the-century social movement that offers a remarkable model for innovation. The Chautauqua movement proved the perfect model for our annual Age of Disruption Tour, which is sponsored in part by AARP. This article discusses the original Chautauqua and presents a summary of our successful efforts to build a new American Chautauqua that is designed to disrupt aging.



### The Original Chautauqua

The post-Civil War era ushered in new levels of urbanization, industrialization, and prosperity. With these changes came a growing awareness of a large and growing cultural gap separating large urban centers, with their museums and orchestras, from small towns and rural communities, where millions of people lived with limited access to art, philosophy, and music. Determined to bridge this divide, John Heyl Vincent and Lewis Miller founded in 1874 an adult education initiative on the shores of Chautauqua Lake in western New York State. “Chautauqua” grew to become an important social movement that reached its zenith in the late 19th and early 20th century. The movement was defined by its traveling cultural festivals, known as “circuit Chautauquas.” During the summer of 1915, for example, the Chautauqua Movement brought lecturers, actors, teachers, and musicians—and their accumulated knowledge and culture—to 12,000 communities; the programs were

explicitly educational rather than revivalist. The usual program lasted two days, and each day delivered a unique set of programs and performers. When it was over, the tents were folded and the show moved on to the next city. President Theodore Roosevelt called Chautauqua “the most American thing in America.”

In the 1920s, the movement went into a slow decline, and most historians ascribe its waning influence to the growing popularity of network radio broadcasts, movies, and the newfound mobility provided by the automobile.

### A New American Chautauqua

Today’s mass media has a stranglehold on the cultural narrative of aging, attributing all virtue to youth and equating aging with decline. Patterned after the circuit Chautauquas, the Age of Disruption Tour seeks to counter this pervasive ageism by offering people a shared experience that emphasizes growth and change across the lifespan. Because the tour is a 21st century

phenomenon, it has been developed as a hybrid—that is, live and online—platform.

*“The message was striking but more the thought it provoked over several days. I have gone from the simple act of looking in the mirror and saying, ‘This is what I have’ to pondering about this whole concept of truth in our society today.”*

*—Attendee, the Age of Disruption Tour, Denver, Colorado*

Launched as a pilot project in 2014, the tour now visits 30 to 40 cities in North America each year. As with the circuit Chautauquas, each visit is the focus of intense pre-event planning and community engagement. Indeed, the tour’s digital presence and live events are sustained by volunteer grassroots support, energized local sponsors, and ticket sales.

With weeklong swings broken into spring and fall seasons, the tour visits five cities in five days—an arduous endeavor that requires a high level of sustained enthusiasm and execution. A day in the life of the tour begins with the arrival of the crew—they travel aboard a motor coach that sleeps 12—in the early morning hours. The tour rents a local theater for the day’s two performances, and “load-in” begins at 10:00 a.m. We host a lunchtime conversation with local community leaders and activists between noon and 1:30 p.m. The day’s first public event runs from 2:30 to 4:30 p.m.; it weaves film, music, storytelling and the personal stories of elders into a dramatic stage performance called “Disrupt Dementia.” Event attendees are then treated to a carefully curated hands-on experience in the theater’s lobby from 4:30 to 5:30 p.m. At 7:00 p.m., a 90-minute

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evening performance, “Life’s Most Dangerous Game,” offers attendees an energetic synthesis of the day’s activities. When the show is over, the bus is loaded up, and the tour departs for the next city. This is a Chautauqua for the 21st century!

### Creating Nonfiction Theater

As part of the tour initiative, we are pioneering new approaches to the theatrical arts. We have embraced all elements of classical stagecraft, but instead of using them to tell a fictional story, we use these tools to explore private dreams and reinterpret public myths. The performances take place in premier theaters with brilliant lighting and cutting-edge set design. We use props, set changes, costumes, sound, sound effects, and music to deliver a message in a way that is immersive and, we hope, inspiring. Living in a digital age that makes all information available to all people at all times has, paradoxically, created an opening for local, live, one-of-a-kind performances to connect with and transform communities.

*“I thought the event was extremely provocative in a very good way. I would especially encourage younger people to attend so they can not only have a new perspective on aging for themselves (hopefully allowing them to be less afraid of growing old!) but also so they can see how they may be able to help elders in their community.”*

*—Attendee, the Age of Disruption Tour, Pittsfield, Massachusetts*

### Outcomes

We are in the preliminary stages of an effort to create a sustainable cultural festival that is local in its

focus, national in its impact, and capable of inspiring a new narrative around ageism and aging in daily life. Since its inception in 2014, the tour has grown in size, complexity, and scope. The number of cities visited each year has increased from 25 to 37—and will exceed 40 in 2017. At the same time, the number of events held by the tour has more than quadrupled. Social media data on the tour suggest that its intense local orientation yields enhanced levels of user-generated content and markedly increased virality, with tens of millions of impressions generated strictly by word of mouth.

### One Final Note

The tour offers a unique fusion of live, digital, educational, and inspirational content that can change people’s lives for the better. We know, because this work has changed the lives not only of audience members but of the tour’s cast and crew as well. Our community outreach director, Mike Bolinder, was working to bring the tour to his home state of Massachusetts when he learned his mother’s cancer was terminal and her dementia progressing. Mike told us that the wisdom imparted through the tour helped him and his family walk with her as she experienced dementia and “grieve her death in a clear and beautiful way.”

We are excited about our contribution to “disrupt aging” and look forward to being local, being artistic, and being persistent! ●



**Dr. Bill Thomas**

Dr. Bill Thomas’ wide-ranging work explores the terrain of human aging. Best known for his health care system innovations, he is the founder of a global non-profit (The Eden Alternative) which works to improve the care provided to older people. He is the creator of The Green House® which Provider Magazine has called the “pinnacle of culture change.” He has been traveling the country since 2014 starring in what he calls his Age of Disruption Tour, a “nonfiction theater performance” that has played in over 80 cities.

# SUSTAINABLE DEVELOPMENT FOR ALL AGES

Danny Sriskandarajah | SECRETARY GENERAL, CIVICUS

**In order to succeed, development plans must take into account new demographic patterns and an aging population that includes up to 20 percent of the world's population.**

It's a global phenomenon, already exerting a profound social and economic impact in both rich and poor countries. So why are so few development professionals talking about population aging? Our planet's rapidly shifting demography has profound implications for our development plans, yet the two issues seem to be linked consistently only by those specialist organizations that have a particular focus on aging. This needs to change. If our post-2015 development framework is to be effective and legitimate, evolving population dynamics will need to be taken into account across the board.

The era of our new Sustainable Development Goals (SDGs) is also the era of the "age bulge." By 2030—the deadline for achieving our development vision—there

will be more people over the age of 60 than children under the age of 10. By 2050, for the first time in human history, there will be more adults over 60 than children under 16 and, of these 2 billion older people, the majority will be women<sup>1</sup> and around 80 percent will be living in developing countries. If our development plans do not include a comprehensive understanding of these new demographic patterns—if they fail to take into account up to 20 percent of the world's population—they will most likely be doomed to fail.

But it need not be so. Indeed, I am optimistic—optimistic because the SDGs represent a bold new agenda, a radically different development landscape to that which the Millennium Development Goals (MDGs) left behind. Whereas the MDGs focused on poverty reduction, our new development vision is much broader. The SDGs set out a comprehensive road map for achieving a number of interconnected public goods, from ending poverty to reducing inequality, tackling climate change, and providing humanitarian relief. Fundamentally, the goals represent an attempt to envision the quality of life that every human being should enjoy by 2030. They pave the way toward enshrining the right to a minimum standard of living, the construction of a global social floor. This collective, universal vision of what a good-quality life for people and planet might look like represents a significant departure from our previous individualistic, nation-based development strategies.

Perhaps most importantly, the SDGs are intended to be a people's agenda—a practical tool to empower people all over the world to usher in a new age of mutual accountability. Citizens can make governments fear



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the political price, and businesses the commercial cost, of failing to make good on their commitments: the goals gift power into the hands of the people. For development is no longer about the world's rich countries attempting to fix the problems of the world's poorest. The SDGs are about what we all need to do to achieve the needs of people and planet. A true test of their efficacy will be how the United States and Europe change their policies and practices to achieve the vision the goals lay out; how the private sector adapts the way it consumes and produces; how civil society organizations look up from their areas of specialist focus to the big, systemic changes that are now required.

Not only does this new development agenda call on all stakeholders to play their part in bringing the 2030 vision to fruition; at its heart, the agenda aims to “leave no one behind.” The goals aim to tackle inequality and exclusion in all its forms, seeking to ensure that individuals can participate fully in their societies regardless of age, disability, or gender. The economic growth sought by the SDGs is an inclusive growth, one that means decent employment, social protection, and access to essential services for all members of our communities.

Of course, if we are to have any hope of achieving this new vision, robust new metrics, fed by nothing less than a data revolution, will be critical. The MDGs entrenched the idea of measuring progress through metrics—measuring effectiveness for donors, but more importantly, to promote accountability. The SDGs follow in this tradition, yet their requirements in terms of volume, complexity, and breadth of data go far beyond anything the development sector has previously

attempted. SDG metrics are still in their infancy, but already there is widespread consensus that significant investment in the capacity of all development actors—including citizens—to generate, use, and curate data will be crucial. Data disaggregated by age, gender, and disability, for example, cannot be considered an expensive, optional add-on to the SDG framework; this kind of more nuanced data collection must be at the very foundation of our decision making. Without the ability to measure and monitor progress in this way; to understand how lifetime inequalities of income, education, employment, health, disability, and gender evolve with age; to capture gaps within and between population groups, we risk investing in the wrong areas and undermining accountability.

Sustainable development depends on how many people will inhabit the planet in the years to come, where and how they will live, and what resources they will require and produce. For these reasons, any sound development plan must take into account the profound effects of population growth, aging, and migration. And I do believe that, properly understood and effectively implemented, the SDGs lend themselves to this life-course approach to development. Still, there is little doubt that we need to build a more consistent and informed narrative—one that involves all development actors—around what sustainable, equitable development will look like for people of all ages and how we can achieve that goal. ●



### **Danny Sriskandarajah**

Dr. Dhananjayan Sriskandarajah is secretary general of CIVICUS: World Alliance for Citizen Participation. His previous roles include director of the Royal Commonwealth Society and deputy director of the Institute for Public Policy Research. Dr. Sriskandarajah holds an MPhil and DPhil from the University of Oxford, where he was a Rhodes Scholar. In 2012, he was chosen as a Young Global Leader by the World Economic Forum.

<sup>1</sup> UNFPA [[define]United Nations Population Fund] and HelpAge International, Chapter 1, in *Ageing in the 21 Century: A Celebration and Challenge* (London: UNFPA and HelpAge International, 2013), 27.

# AARP ON THE SCENE



**“One important lesson we've learned through our age-friendly work is that collaboration between community partners is vital—collaboration that transcends professional silos, embraces innovation, and delivers results.”**

**Debra B. Whitman**

AARP CHIEF PUBLIC POLICY OFFICER AT THE INTERNATIONAL FEDERATION ON AGEING  
13TH GLOBAL CONFERENCE ON AGEING, BRISBANE, AUSTRALIA, JUNE 2016



1 Debra Whitman AARP's Chief Public Policy Officer addresses The International Federation on Ageing (IFA) 13th Global Conference on Ageing, Brisbane, Australia, June 2016

2 2016 AARP-UN Briefing Series "Empowering Women: The Forgotten Half-Billion." Day One speakers (l-r) Rosa Marlene Manjate, Gender Advisor to the Health Minister, Government of Mozambique; Rosie Hidalgo, Deputy Director for Policy, Office of Violence Against Women, US Department of Justice; Jeannine English, President, AARP; Moderator Gayle Tzemach Lemmon, Senior Fellow for Women and Foreign Policy, Council on Foreign Relations; and Keynote Speaker Baroness Verma, Parliamentary Under Secretary of State for International Development; Member, House of Lords, Parliament of the United Kingdom of Great Britain and Northern Ireland. United Nations Headquarters, New York, March 2016



3 AARP CEO Jo Ann Jenkins with OECD Secretary-General Angel Gurría at the 2016 OECD Forum in Paris, France, May/June 2016



4 Josh Collett, Vice President, AARP International with Arnaud Bernaert, Head of Global Health and Healthcare, World Economic Forum, New York, September 2016



- 5 AARP's Director for Global Partner Engagement Bradley Schurman (center right meets with Jeong Seon (Sunny) Hahn (center left) at Cigna Korea. Cigna launched an organization called Junsungki that is serving the 50+ population. AARP and Junsungki are working to find areas of collaboration. Seoul, Korea, December 2016
- 6 Jonathan Stevens, Senior Vice President for Thought Leadership, AARP, moderates the World Economic Forum G7 Health Ministerial Side-Event on Longevity Kobe, Japan, September 2016
- 7 AARP CEO Jo Ann Jenkins with Pascale Boistard, Minister of State for Elderly People and Adult Care, Ministry of Health and Social Affairs, Republic of France, at the 2016 OECD Forum, Paris, France, May/June 2016



Jeffrey Gullo @jeffgullo • Oct 14  
 @AARPIntl #FallForum addresses need for comprehensive, disaggregated #data to achieve #SDGs, inclusive development. #LeaveNoOneBehind



Rodney Harrell, PhD @DrUrbanPolicy • Apr 25  
 It was an honor to join the @UN\_ECE @EU\_Commission and member countries at the Active Aging Peer Review in Berlin



# WEALTH OF GENERATIONS

Diane Maxwell | RETIREMENT COMMISSIONER, COMMISSION FOR FINANCIAL CAPABILITY, NEW ZEALAND

**For the 25 percent of our population who identify as Māori and Pacific, the reference points for wealth and well-being are about whanau (family), community, and iwi (tribe).**

In New Zealand we have shifted from talking about financial literacy to talking about financial capability, based on our belief that “knowing” is not the key—it’s the “doing” that matters. Our lives are the sum of our habits: what we do in the day to day.

I have many habits that I know are not great: checking work e-mails at bedtime, being addicted to social media, and not doing enough exercise, to name a few. They are pretty ingrained, and the question is, what would it take to change them? It’s usually a health scare (ours or someone else’s) or a significant birthday that makes us shift gears. And with money it’s usually a crisis point, a financial rock bottom, or being unable to source credit that effects change. In an ideal world, we would bring about change before the crisis—but how?

I believe that capability is the successful intersection of information and

sustainable behavior change, and that to build capability we need to understand the basis for how and when information becomes applied. If we don’t, we stand back in frustration when despite all our hard work, people don’t do what they should do, even after we’ve told them. It’s at that point that many organizations step away, confident they’ve done their part, but some people just won’t listen.

In reality, the information that connects and resonates with us depends on our worldview, our values, our beliefs, and social norms. We ignore what doesn’t sit well with us, but we absorb those things that support existing beliefs. That’s why it’s so hard to bring about behavior change that challenges those norms.

This perspective is critical for our work in building financial resilience and capability across our New Zealand population. We are a relatively young country and a diverse one, with 191 ethnicities in Auckland alone.

At the Commission for Financial Capability, we seek to understand, and we actively ask ourselves, what does a wealthy life mean for New Zealanders of all ethnicities? The word “wealth” has had a bad rap lately. It is increasingly linked to greed, inequality, and a belief that it’s a zero-sum game: if I build wealth, I do so at your expense. The origin of the word wealth is “well-being,” and in New Zealand we are working to reclaim and redefine it.

For the 25 percent of our population who identify as Māori and Pacific, the reference points for wealth and well-being



PHOTOS: THE COMMISSION FOR FINANCIAL CAPABILITY



are often different from those seen through a European, or Pākehā, lens. For many, it's about whanau (family), community, and iwi (tribe). Wealth is about the land and the collective.

Social norms in a collective society become all the more important, because being ostracized has greater significance and consequences. The mihi, a customary greeting that starts many meetings, is about telling the story of where you're from—your iwi and your “path.” If shifting your behavior sets you apart from your community and family, then that constitutes a sizable barrier to change. This gets even harder if the behaviors you're adopting are perceived as reflecting a Pākehā worldview. In Samoan, the term is Fia-Palagi, and it means “a Pacific person trying to be white.” And it's harder

still if the change is perceived as taking away from the community (e.g., declining a request for money from church or family).

Historically, many in the mainstream financial services sector—and in the government agencies and nongovernment organizations that work to build financial capability—have used language and concepts that are wholly based on individual or nuclear-family outcomes: a “what's mine is mine” philosophy. It goes without saying that this approach often doesn't hit the mark for some communities and ethnicities.

If covering the cost of my retirement is viewed as the job of the next generation, and successful living is about the closeness of family and richness of community, then a personal retirement savings plan does not excite the senses—unless I understand what it can do for my wider family and can gain greater confidence in the system that administers it.

The risk is that we effect only short-term change, but if people have an uneasy feeling that it's not sitting quite right with their core values, that they are being bent out of shape to become something or someone they are not, then it is not sustainable—at which point, it's just one more voice from the government or the mainstream that misses the mark, one more reason to say, "This has no relevance; it is not for people like me; it's for other people." And for those evaluating the work and measuring change, it's interpreted as yet more evidence that people just don't listen.

This lack of relevant and effective work to build financial capability, combined with low incomes and home-ownership rates, and a lack of intergenerational wealth are leading to a perfect storm.

But before we race to fix the problem, I'd like to quote a local member of parliament, our first New Zealand member of parliament of Cook Island descent, who tells the story of hearing from his auntie as a young boy, "You are not a problem to be solved. What is your opportunity?" She was right. Don't make the problem the starting point: start by understanding what success, happiness, and well-being look like.

At the commission, we have built a strong, connected, and

diverse team. Some time ago we shed the generic photos of smiling middle-age white folk in pastel sweaters enjoying a sunset stroll across white sands, or relaxing with a coffee in front of an expansive house. We now use photo essays that reflect our actual population and not an affluent parallel universe.

But to be blunt, this is not about finding a brown face to front the same old message and then congratulating ourselves on our diversity. It is about reframing from within communities. On that note, I want to leave the last words to my colleague Peter Cordtz, who talks about what wealth and well-being mean to him:

*Kia whakatōmuri te haere whakamua (I walk backward into my future, with my eyes fixed on my past.)*

My father came to Auckland from Samoa for the same reason my Māori mother left the safety of her ancestral lands in the far north—the opportunity to build a better life, not just for themselves but to provide more for their children than they ever had. While this whakatauki (Māori saying) acknowledges the past as an anchor for our identity, my parents taught me the value of vision in providing for the future.

That vision led them to forgo welfare benefits for young families in favor of a government home-ownership scheme in the mid-1960s. It also led my father to insure his life, something unusual for a Samoan immigrant—then and now. When a car accident caused his untimely death and left my young mother to raise us on her own, his vision provided a safety net in the form of a freehold home.

As hard as life was, that foresight enabled me to be the first from either my Samoan or Māori family to earn a university degree and have opportunities neither of my parents had. As a parent, I've come to understand that a key part of honoring the past is building a better future.

*Mō tātou, ā, mō kā uri ā muri ake nei (For us and our children after us) ●*



**Diane Maxwell**

As Retirement Commissioner, Diane Maxwell leads the Commission for Financial Capability (previously the Retirement Commission). The Commissioner's goal is building the financial capability of New Zealanders of all ages, with an increased focus on low-income and vulnerable groups. The role also includes a three-yearly review of retirement income policies and a monitoring role for the Retirement Villages Sector.

# ECONOMIC EMPOWERMENT OF OLDER WOMEN

**Cathy Russell** | AMBASSADOR-AT-LARGE FOR GLOBAL WOMEN'S ISSUES, US DEPARTMENT OF STATE

It's a strange thing to drive down the dusty roads of Khartoum in the afternoon and see stack after stack of plastic chairs sitting just feet away from the highway, seemingly abandoned. But as the sun and the temperature slowly drop, the scene changes quickly as the "tea ladies" appear, pulling down chairs, brewing tea, and preparing for customers.

Awadeya Mahmoud is, in many ways, a typical tea lady in Sudan. Now in her 50s, she started selling tea on the roadside to support her family. But she is extraordinary in that she has led a movement of other tea ladies demanding their rights.

Impoverished, internally displaced, and stuck in the informal sector of the economy, these tea sellers face tremendous barriers. They may be chased away from their stands. Their equipment is often confiscated. They're asked to pay bribes to continue operating their stands.

After experiencing many of these barriers firsthand, Awadeya started a movement that grew into more than 7,000 women in three cooperatives, which have become a place for women to find support and learn how to navigate a male-dominated, oppressive society.



Awadeya is the epitome of a leader—so much so that the State Department honored her with the Secretary of State's International Women of Courage Award<sup>1</sup> in 2016—and a prime example of why older women must not be overlooked.

This magazine has documented the many challenges facing older women around the world, from poverty and legal barriers to discrimination and violence. To make matters worse, women over 50 have often been left out—of data collection efforts, of conversations about

human rights, and of plans and programs to advance the status of women around the world.

As Ambassador-at-Large for Global Women's Issues, I've spent the past three years working to ensure that women at every stage of life are included in US foreign policy and development efforts. My work has built on the US government's commitment to gender equality and to our strong belief that when women do better, countries do better as well.

Earlier this year, the State Department released a strategy<sup>2</sup> that

# Increasing women's economic participation at every phase of their lives strengthens prospects for economic growth.



1 The author with Awedeya Mahmoud in Sudan

acts as a road map for US diplomats to support women in job creation and development around the world, which has been one of our key priorities.

This economic empowerment strategy looks at issues like access to resources and decent work, barriers facing women entrepreneurs, and other cross-cutting issues that keep women from participating in the economy, such as gender-based violence.

The strategy also makes clear that, in order to succeed, we need to use all of our talent, including women of all ages. Our efforts should

not leave older women behind as we all work to increase prosperity and stability for nations and communities across the globe.

As women grow older, any marginalization they've faced often grows with them. Poverty worsens. Isolation increases. Stereotypes and biases harden.

The good news is that there is growing recognition of the valuable contributions women of all ages have to offer economies. Increasing women's economic participation at every phase of their lives strengthens prospects for economic growth. And it's critical to breaking the cycle of poverty for families and preventing financial vulnerability in older age.

For much of the world, the question is no longer about why we should include women; it's about how to do it. As we collect and analyze data, pilot programs, and implement policies, we must make sure that older women are not left behind. The Awedeyas of the world are doing their part, and they deserve better from us. ●

<sup>1</sup> <http://www.state.gov/s/gwi/programs/iwoc/>

<sup>2</sup> <http://www.state.gov/s/gwi/econ/strategy/index.htm>



PHOTO: ASTRID STANWARZ GETTY IMAGES FOR GLANDOUR

## Cathy Russell

As the US Ambassador-at-Large for Global Women's Issues, Cathy Russell has led the State Department's efforts to advance gender equality and the empowerment of women and girls around the world since 2013. In this role, she has focused on addressing gender-based violence, promoting women's full participation in society, investing in adolescent girls, and integrating women's issues into US foreign policy.





# MEASURING THE RETIREMENT LIABILITY

Chip Castille | CHIEF RETIREMENT STRATEGIST, BLACKROCK

Around the world, institutions and governments are responding to demographic changes, market uncertainty and balance sheet pressures by asking individuals to take more responsibility for their retirement outcomes. One consequence is the rise and continuing spread of self-directed retirement systems such as 401(k) plans and IRAs. In these systems, retirement readiness is determined by individual decisions on saving, investing and spending. That's why the quality of those decisions is the crucial factor in retirement preparedness, defined by BlackRock as an investor having enough assets to meet her desired income in retirement.

These self-directed retirement programs currently focus almost exclusively on assets, with little or no consideration of goals. Investors can buy and sell stocks, bonds and other investments more or less at will but have little insight into their "liability": how much they'll need to generate their desired income in retirement. In place of real knowledge of their eventual goal, they've told to use simple rules of thumb such as "save 15 percent of your salary" or "spend 4 percent of your assets each year in retirement."

Imagine a world in which it's easy to buy and sell houses with a phone call or mouse click. However, buyers never learn the terms of their mortgages. Instead, they are told to adopt simple rules of thumb, such as "Send the bank a monthly check equal to the square footage of your house." Then after 30 years, the bank informs you whether you've paid off your mortgage. If you haven't, you'll need to move to a different, perhaps smaller, house. Not many people would think this is a good way to buy a home.

**There's no way to make retirement investing that transparent and precise. But what if the system could move in that direction?**

Of course, with a real house, buyers know the price they paid, know what they owe, and their mortgage's terms are clear. There's no way to make retirement investing that transparent and precise. But what if the system could move in that direction?

Market indices such as the S&P 500 and the Barclays Aggregate Bond Index can help us measure the performance of assets—including retirement assets. That is, we can compare the performance of our own portfolios to the indices to get a rough measure of how our investments are doing. If they're consistently underperforming the broader market, we can use that information to make changes.

What's needed is a benchmark to help investors and their financial advisors estimate the other side—the liability side—of their personal balance sheet: how much their annual retirement income could eventually "cost."

We believe that such a benchmark should do the following things:

- It should reflect a lifetime measure. That is, it should provide a fair estimate of an investor's retirement liability, using actuarial calculations, to account for income no matter how long an individual may live.
- It should address inflation risk, because the potential for purchasing power to erode over the length of a typical retirement is significant.
- It should be related to something investable. The benchmark should help investors maintain the ability to purchase secure lifetime income if and when they choose to do so.
- Finally, we want the measure to be as intuitive as possible, so that advisors can use it to help clients make informed decisions.

In 2013 BlackRock introduced a benchmark designed to help meet these needs: the CoRI® Retirement Indexes (CoRI Indexes). Each CoRI Index is designed to estimate the “cost,” today, of \$1 of cost-of-living adjusted (COLA) annual retirement income for someone who turns 65 in a particular year. Suppose that today the CoRI 2026 Index price is \$17.00. This means that for every \$1 of lifetime income that an individual would like to have in a retirement that begins in 2026, she would need approximately \$17.00 saved and invested today. In other words, every dollar to be spent in retirement “costs” the investor \$17.00 to “buy” today, in the form of savings. If the investor wants to spend \$50,000

a year in retirement that begins in 2026, then she would need to have approximately \$850,000 ( $\$50,000 \times \$17.00$ ) saved and invested today.

The reason rules of thumb such as “spend 4 percent in retirement” can be risky to follow is that this “cost” of retirement fluctuates. Rules of thumb presume a fixed return on assets but those returns aren't always steady. CoRI Indexes are designed to help measure that fluctuation. As a result, they can help investors and advisors understand in current terms (CoRI Indexes are priced and published daily) how much “purchasing power” their assets may have when they retire. With CoRI Indexes, investors can not only estimate their total liability—how much they may need to generate the annual retirement income they want—they can work with an advisor to identify gaps and help close them.

Suppose our investor who wants an annual retirement income of \$50,000 has \$520,000 today. The CoRI Index for the year she wants to retire—2026—estimates that she is currently \$300,000 short. But she's only 55, so she has 10 years to close that gap.<sup>1</sup> She has four options.

1. She can lower her retirement goal. This could allow the assets to catch up to a smaller goal in the years she has left before her retirement date.
2. She could work longer. This option would allow her to keep the original income goal and allow more time for the assets to catch up to her retirement goals.
3. She can save more. This could increase the growth rate of the portfolio and allow her to retire

at the original date with the original goal.

4. Or she could reallocate her investments, potentially leading to higher returns. This could again allow her to retire at the original date with the original goal.

Our investor can choose what combination of these levers to adjust so that she once again gets on track to have enough assets to meet her retirement needs at some future point. We call this process “journey management.”

Let's say that our investor doesn't want to change either of her goals—that is, she doesn't want to delay her retirement or accept a lower annual retirement income. Instead, working with her advisor, she increases her savings rate and periodically adjusts the risk in her portfolio. Over ten years, course correcting at least once per year, she could increase the potential to help close that gap between her current assets and the current value of her retirement needs.

Now let's suppose she's made it to retirement and met her goal. The challenge for retirees is to simultaneously seek to manage longevity risk—the risk of outliving their money—and market risk: the risk of losing money in a downturn. Remember also that one key characteristic of the CoRI Indexes is that they are related to something investable, in this case an annuity. That means that the lump sum our investor has accumulated could be used to purchase an annuity that pays her desired income goal for as long as she lives. She doesn't have to do this: she can just as easily maintain control of her assets, annuitize at a later date, or partially annuitize to secure a portion of her income while preserving some of her capital. The

point is, she has options. “Journey management” in the retirement or spending phase is all about helping preserve those options, while seeking to maintain the ability to fund her lifestyle.

Once again, the liability benchmark is what helps make this possible. Keeping track of the relevant CoRI Index will alert our investor if her spending trajectory is off track or if her investments returns aren’t sufficient to help keep her on track. Once again, she can manage the journey with the four levers of retirement management, except that in retirement the savings lever becomes the spending lever. As such, she can spend less in the following year, she can lower her long-term goal, or invest to seek higher returns, or perhaps extend the time-horizon at which she aims to annuitize her remaining retirement needs.

As society asks individuals to assume more responsibility for their retirement outcomes, we need to help them make more informed investment, saving and spending decisions. We at BlackRock believe that our retirement system’s current emphasis on assets and relative neglect of liabilities needs to be corrected. We envision a robust retirement system that takes account of both assets and retirement income goals and provides tools to help manage their retirement journey. ●

<sup>1</sup> BlackRock’s CoRI methodology takes into account current interest rates, inflation expectations, life expectancy and other factors. Estimates based on CoRI methodology are not guaranteed. A number of factors may contribute to variations in lifetime income. The CoRI methodology does not reflect the fees, expenses and cost that may be associated with an annuity or any other retirement income product that an individual may purchase, or any assumption that such a product will be available for purchase at any point during the investor’s retirement. Example based on a 2026 CoRI Index level of \$16.43 as of 10/26/2016.

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BRRC-0121



**Chip Castille**

Chip Castille, Managing Director, is BlackRock’s Chief Retirement Strategist. He is responsible for the development, product management and distribution of BlackRock’s U.S. Retirement strategies and services. He is a member of BlackRock’s Global Operating Committee. Mr. Castille’s current service with the firm dates back to 2007, including his years with Barclays Global Investors (BGI), which merged with BlackRock in 2009. At BGI, he was Head of U.S. Defined Contribution Product Development.

# A MODEL PENSION SCHEME IN AFRICA

**Charles Knox-Vydmanov** | SOCIAL PROTECTION POLICY ADVISOR, HELPAGE INTERNATIONAL

For the vast majority of sub-Saharan Africans, receiving any kind of pension in old age remains an unlikely prospect. In most countries, pension coverage is limited to a small minority of older people who have spent their lives working in the informal sector. Fewer than 1 in 10 people in the labor force are contributing to a pension—meaning that, without a major change in policy, the situation will remain the same for future generations.

It might well be assumed that meaningful steps toward an effective pension system are simply out of reach for low-income African countries. A recent development in Zanzibar, a semiautonomous region of Tanzania, however, throws those assumptions into question and sheds light on a broader shift in thinking about the role of old-age social protection in developing countries. In April 2016, the government of Zanzibar began making payments of 20,000 Tanzanian shillings (US\$9) to all people over the age of 70, regardless of their income status. Unlike various other cash transfers across the continent, the scheme is fully financed by the government budget, costing roughly 0.24 percent of the country's GDP.

1 Mohamed Kombo, the first recipient of the universal pension in Zanzibar



PHOTO: HENRY MAZUNDA, HELPAGE INTERNATIONAL

So, how did this come about? Far from an instinctive populist move, the decision to introduce the pension was the result of a policy process dating back many years. The idea of a universal pension initially arose in 2008; it gained broad endorsement in the process of developing a national Social Protection Policy, which was adopted in 2014. A universal pension was seen as a way to address the greater vulnerability Zanzibaris face when they grow older. With age, work tends to become more challenging, meaning that older people are increasingly forced to look to their family members for support, many of whom are struggling with poverty themselves.

Following the adoption of the policy, a cross-ministerial task team was convened to discuss the parameters of the scheme, which was eventually announced in mid-2015. Whether the scheme should be universal or means tested was a hot topic throughout the deliberations. The final choice of a universal scheme was influenced by concerns about the significant targeting errors associated with means testing and the advantages of the simplicity of universality, in terms of lower administrative burden and cost.

Zanzibar's pension makes the country something of a pioneer, being the first universal cash transfer in East Africa to be fully funded by government. Nevertheless, the development is also emblematic of a bigger global trend of increasing investment in social protection. Over the past two decades, a growing number of countries have introduced or expanded different kinds of cash transfers aimed at reducing the population's vulnerability to shocks and stresses. Rather than a luxury for rich countries, these schemes are increasingly being seen as a fundamental piece in the puzzle of successful social and economic development.

Pensions have been an important part of the picture—in particular, tax-financed “social” pensions like the scheme in Zanzibar, in which eligibility does not depend on previous pension contributions. The past two decades have seen a rapid rise in the number of countries introducing social pensions; of the approximately 100 countries that have social pensions today, half of these schemes were introduced since 1990 and nearly a third since the year 2000. Most of these newcomers have

## **An assessment of the impact in Zanzibar is still ongoing, but initial discussions with older people suggest that the scheme is having a substantial positive impact on older people and their families.**

been low- and middle-income countries that vary in context: for example, Bolivia, Mexico, Nepal, Thailand, Timor-Leste.

Zanzibar also joins a collection of countries in southern Africa that have been pioneers in the extension of social pensions. Botswana, Lesotho, Namibia, South Africa, and Swaziland all have universal (or near universal) social pensions that form a core pillar of their social protection systems. The island of Mauritius was one of the earliest countries to introduce a universal pension in the 1950s, when it was a low-income country. The scheme, which is still in place 60 years on, is considered to have contributed to the country's “economic miracle” and has been an important inspiration and reference point for Zanzibar. In the meantime, other countries in the region, including Kenya, Uganda, and Zambia, are all experimenting with social pensions, although most still remain small in coverage.

As social pensions have become more widespread, a growing evidence base has developed, documenting their potentially transformative impacts on older people

and their families. Social pensions in Mexico have increased older people's access to health services and reduced reported levels of depression, in part because these individuals are able to assume a larger role in household decision making. Yet the impacts extend beyond older people to the families they share their lives with—and particularly to their grandchildren. In Bolivia, Brazil, and South Africa, research shows how social pensions have increased school enrollment, improved child nutrition, and reduced levels of child labor, thus contributing to wider efforts to improve children's well-being. An assessment of the impact in Zanzibar is still ongoing, but initial discussions with older people suggest that the scheme is having a substantial positive impact on older people and their families.

Despite this major advance in Zanzibar, the scheme still has its limits. For example, the age of eligibility is still high for a country with a life expectancy of 66 years, and the benefit level (roughly 12 percent of average income) is modest. In the meantime, for the 1.3 million older people ages 70 and over on the Tanzanian mainland, there is no social pension in place, although there have been promises that the government there will adopt the approach.

Implementing a scheme of this nature in a low-income context is also not without its challenges. Administrative systems need to accommodate a population with very low levels of literacy, and many individuals face mobility issues

and visual impairments that make it harder to reach a pay point. In order to support the effective implementation of the scheme, HelpAge International, with support from the German government, is supporting groups of older people in order to monitor the implementation of the scheme. This is helping to shed light on important issues.

One particular challenge in Zanzibar is that many older people lack adequate identity documents to prove that they have reached the age of eligibility. Despite the scheme being universal on paper, monitors found that six months after the inception of the scheme, around one in five people over age 70 were still not getting the pension. For two-thirds of those not receiving it, issues related to identity documents were the main cause. In fact, for countries with weak civil registration systems, these issues are not uncommon in the early years of implementing such a policy. The experience of a country such as Bolivia—which also has a universal pension—shows that, with adequate support, these issues can be ironed out over time.

Although work still needs to be done, the introduction of the universal pension in Zanzibar marks a major achievement in expanding social protection. It also provides an example to other low-income countries in Africa that—with political will—it is not too early to start building a pension system that supports all citizens in aging with dignity. ●



**Charles Knox-Vydmanov**

Charles Knox-Vydmanov is Social Protection Policy Advisor at HelpAge International. His work involves direct technical support to government, and supporting HelpAge offices and network members to advocate for better pension policy. His nine years at HelpAge has included policy engagement and research in countries including Bangladesh, Belize, Kenya, Indonesia, Lao PDR, Malawi, Mozambique, Myanmar, Peru, the Philippines, Tanzania and Zambia.

# OFFICE ADDRESS: ANYWHERE

Adam Segal | COFOUNDER AND CEO, COVE

Each day of the week, my father woke at 6:30 a.m., put on a suit and tie, read the *Boston Globe* newspaper over cottage cheese, and got into his car to commute 60 minutes to the office. I have fond memories of visiting him at work, meeting his colleagues and taking in the buzz of his workplace.

Each day of the week, I wake at 6:30 a.m., put on jeans and a plaid shirt, read the *Washington Post* on my phone over Greek yogurt, and get up to commute the five steps into my “office”—better known as my living room. And, depending on the day, my office can transform into a local coffee shop, the subway, a colleague’s meeting room, or just a walk with my smartphone.

We are truly experiencing the evolution of how work gets done. You can see this in the work-from-home policies companies adopt and the flexible schedules people keep. But what happened to the office and gray walls of the cubicle? Putting this in context, the dedicated office is relatively new to our culture. Around the turn of the 20th century, the white-collar worker exploded in a postindustrial world. Back-office supports like HR, accounting, and administrative staff became vital to the health of a business as the scale of production increased. All these people needed a place to aggregate and communicate—thus the rise of the traditional office.

Over the past 10 years, technology’s advancements and reach have redefined what it means to communicate. We are discovering new and more efficient ways to converse that include e-mail, online video calls, and real-time messaging. Considering that sending an e-mail from your desk is easier than walking down the hall to your coworker raises a couple of simple and practical questions: Why does that desk reside in an office building? Do you need a dedicated desk, or can it be a shared, organizational resource? In a world where you can work on your own schedule, from home, from a café, or from the office, the everyday necessity of the dedicated cubicle in an office building is starting to fade.



1 Do you need a dedicated desk, or can it be a shared, organizational resource?

2 The modern “office” will increasingly become a mix of home, office, and nontraditional work environments.



This sea change in the way people work can be both freeing and disorienting—at the same time.

In this new world of mobility, my cofounder, Jeremy Scott, and I set out to change our relationship with modern work. We found ourselves seeking nontraditional, more social environments to work from—places like local coffee shops that sidestepped the commute of the office and the solitude of the kitchen table. However, while the neighborhood coffee shop checks the box on proximity to home, it isn't built for productivity. So we launched our own response to the future of work: cove, a network of neighborhood workspaces designed for both productivity and interaction. At cove, we constantly reimagine ways to build community and culture through our tech platform, space design, and educational programming in an increasingly distributed world of work.

We sometimes forget we are social beings by nature, and that the need for human interaction does not just vanish when it comes to work. Converse to what you might imagine in a seemingly online-only world, the future of work will be extremely rich with highly localized interactions across ages, industries, and skills. Take a typical day for me, working from a cove. To my left is the team from Up Top Acres, a Washington, DC, startup revolutionizing urban rooftop farming. To my right is Norm Schwartz, a retired US history teacher now in his second career with a tutoring company and local university. As Norm mentioned to me, it is “awesome to have conversations with so many young people...who are engaged in so many interesting professional endeavors.” And these conversations are going

on each day; sharing, learning, mentoring all happening right in the neighborhood.

So in this new world, we have greater access to people and productivity through technology and a multigenerational, multi-industry, multi-you-name-it environment. The modern “office” will increasingly become a mix of home, office, and nontraditional work environments. When life does not happen in a single place, why should our work? Cut the wear and tear of the 60-minute commute, add local and social elements, and how people work suddenly becomes extremely new and stimulating. This will ultimately lead to greater happiness, greater engagement, and greater work longevity. I am so incredibly excited about the future of work and what is in store for us as a society. Forget the traditional coworkers of yesterday, and say hello to the coworkers of tomorrow: our neighbors.

I don't have an office to show others as my father once showed me. But I'm OK with that; instead, I'm building relationships with a diverse and incredible group of modern coworkers from whom I benefit and learn daily. Hopefully you will soon, too. ●

**About cove**

Three years ago, cove launched with a simple objective: to change your relationship with work. At a time when technology is changing how people work, individuals and organizations need to support nomadic, independent work styles, while maintaining effective communication and human interaction. At cove, we create unique neighborhood workspaces that come to life every day with the buzz of productivity, interaction, and accomplishment. Fueled by a proprietary tech platform, cove enables a more productive way of life in eight locations across DC and Boston. The future of work is happening today, and cove is leading the charge. cove has been featured in the *Boston Globe*, *Yahoo News*, and the *Washington Post*, as well as many other media outlets and publications.



**Adam Segal**

Adam Segal is the cofounder and CEO of cove, a DC-based startup building technology and neighborhood workspaces to empower and enable a more productive way of life. In three years, cove has gone from a business plan to a multi-city company with eight locations in two cities, thousands of users, and a team of over 60 people.



# Danske Bank: A Favorite Among Seniors

Headquartered in Copenhagen, Denmark, and founded in 1871, Danske Bank is taking the lead in answering a pressing question: how do we shape a suitable workplace with respect to the needs of the elderly?

Danske Bank, a Nordic universal bank, offers banking and wealth management to all types of customers, from individuals and small businesses to large corporations and institutions. It is the largest bank in Denmark and a major retail bank in northern Europe, with over 5 million retail customers.

However, Danske Bank not only excels for its business model, it also addresses the needs of its employees—in particular, its elderly workforce. They feel comfortable working at Danske Bank and with good reason: Danske Bank defines, as a goal, to provide a flexible framework that meets employees' individual late-career needs. Competent and committed seniors are encouraged to continue working until their pensionable age or later.

In order to do this, Danske Bank introduced a flexible senior policy in 2006. This gives employees who are older than 55 the possibility to reduce both their working hours and their levels of responsibility. The policy also provides various benefits to elder employees, including an additional week's holiday and the opportunity to extend their employment beyond retirement age if they wish to do so.

**“We consider seniors to be a valuable resource and want to provide opportunities that meet their individual needs until retirement.”**

**—Danske Bank HR Policy**

Danske Bank focuses on not only its elder employees but also its elder customers. They often struggle with digitalization such as online banking. By using research information about the aging brain and examining

usability tests, Danske Bank designed an easy-to-use online-banking system.

Senior citizens ages 65 and older face a number of challenges when they are online.

**“Aging brains gradually lose the ability to distinguish between relevant and irrelevant in-formation when attempting to achieve a specific goal online.”<sup>1</sup> —Jens Sandberg Madsen**

The most difficult obstacle was how to show users the most important information and reduce the less-relevant information that could distract them from their main tasks. Thus, Danske Bank limited the features of its online banking to the four key functions that are used most frequently: *View Balance*, *View Transactions*, *Transfer Money*, and *Pay Bills*. Furthermore, the bank increased clarity and structure by using wizard flows<sup>2</sup> instead of asking for information on a single form page.

A further challenge for older users is reduced or impaired vision. In fact, individuals experience diminished eyesight—enough to require a larger font—as early as in their 40s. Therefore, changes in color perception and sensitivity have been introduced to the website as well as a larger font size, ranging from 18 to 46 points, instead of the usual 12-point font.

Danske Bank proves that only a few adaptations have to be made in order to make things easier for the elderly.

*Daniel Deneke, Intern, AARP International*

<sup>1</sup> The human aging process starts around the age of 20. Beginning at that age, the body slowly loses some of its abilities. Research from Nielsen Norman Group showed that from age 25 to 60 years, our ability to use websites declines by 0.8 percent per year.

<sup>2</sup> Wizard flows enable the customer to see one window after another.

# STOP DEFINING ME BY MY AGE

**Alana Officer** | SENIOR HEALTH ADVISER,  
DEPARTMENT OF AGEING AND LIFE COURSE, WORLD HEALTH ORGANIZATION



PHOTO: MICHAEL STEVENSON, WORLD HEALTH ORGANIZATION

## **Unlike other stereotypes and forms of discrimination, ageism is largely accepted and commonly unchallenged because of its largely implicit and subconscious nature.**

In a diverse society and as human beings we tend to unintentionally group people based on what we look like for example sex, race, disability. In doing so we stereotype people and make the assumption that all members of a “group” are the same.

Stereotyping and discrimination against individuals or groups on the basis of their age is called ageism<sup>1</sup>. It affects both younger and older people but older adults tend to experience the brunt of the problem. Stereotyping is always problematic and especially regarding ageing as a hallmark of older age is great diversity.

Ageism can take many forms, including prejudicial attitudes such as:

- categorizing older people as frail, out of touch, burdensome or dependent;
- discriminatory practices, such as health care rationing by age; and
- institutional policies that perpetuate stereotypical beliefs, such as mandatory retirement.

Ageist depictions are prevalent in everyday language and across a range of media including television, popular music and social media<sup>2,3,4</sup>. A recent analysis carried out by the World Health Organization using World Value Survey data of 83,034 adults from 57 countries highlights just how widespread the problem is. Sixty percent of participants reported that older adults are not well respected, with respondents from higher income countries being more likely to report so<sup>5</sup>. Yet, unlike other stereotypes and forms of discrimination, including sexism and racism, ageism is largely accepted and commonly unchallenged because of its largely implicit and subconscious nature<sup>6,7</sup>.

Ageism concerns us all. Children take on the attitudes and stereotypes from the family or cultural environment and are aware of their cultures age stereotypes as young as four<sup>8</sup>. As we get older we are not only subjected to external stereotyping and discrimination but the negative ageist attitudes become internalized into unconscious self-stereotypes<sup>6,8</sup>.

## **Tackling ageism—both external and internalized—has great potential to improve the physical and mental health of older adults.**

Internalized ageism exhibits by older people trying to stay young, feeling shame about getting older and limiting what they think that can do instead of taking pride in the accomplishment of ageing<sup>9</sup>.

Tackling ageism—both external and internalized—has great potential to improve the physical and mental health of older adults. Longitudinal research by Levy et al in the United States found that, after controlling for gender and socioeconomic status, older people who hold positive self-stereotypes make better recovery from disability and live on average 7.5 years more than people with negative attitudes to ageing<sup>10,11</sup>.

Changing public discourse around population ageing—which largely depicts older adults as burdens on public spending and economic growth can also help to capitalise on the great human capacity that older people represent. Older adults make significant social and economic contributions to their societies. In the United Kingdom of Great Britain and Northern Ireland, the contributions older people made

through taxation, consumer spending and other economically valuable activities (such as care giving) were worth nearly 40 billion Pounds Sterling, more than expenditure on them through pensions, welfare and health care combined. This is set to rise to 77 billion Pounds Sterling by 2030<sup>12</sup>. Although less evidence is available from low- and middle-income countries, the contribution of older people in these settings is also significant. In Kenya, for example, the average age of smallholder farmers is 60 years, making them critical for ensuring food security<sup>13</sup>.

In May, the World Health Assembly adopted the first Global strategy and plan of action on ageing and health, which spans the 15-year period of the Sustainable development Goals. The vision of the Strategy is a world in which we can live long and healthy lives. A priority for action is to combat ageism. The WHO Director-General was specifically asked to develop, in cooperation with other partners, a global campaign to combat ageism in order to add value to local initiatives and to achieve an ultimate goal of enhancing the day-to-day experience of older people and to optimize policy responses.

We have a number of proposed actions but look forward to working with a broad coalition of actors to decide what these should be.

- Get the evidence we need to inform effective communication and concrete actions to combat ageism;

- Develop a global coalition as ageism is everybody's business;
- Create a communications platform that supports a global public campaign to reframe ageing and combat ageism;
- Make selected structural changes to health and social policy and training that will be central to combatting ageism.

While combatting ageism is a monumental challenge, experience with sexism and racism has shown that changing social norms is possible and can result in more prosperous, equitable and healthier societies.

For the first time in history, most people can expect to live into their sixties and beyond. While we are living in an ageing world it doesn't have to be an ageist one. As a first step we all must stop defining ourselves and others by chronological age. ●

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<sup>2</sup> Zebrowitz, L.M., J., Too young, too old: Stigmatizing adolescents and elders, in *The Psychology of Stigma*, T. Heatherton, Kleck, R., Hebl, M. & Hull, J. , Editor. 2000, Guildford Press: London. p. 334-373.

<sup>3</sup> Kelly, J., et al., Representation of age and ageing identities in popular music texts. *J Adv Nurs*, 2016.

<sup>4</sup> Levy, B.R., et al., Facebook as a site for negative age stereotypes. *Gerontologist*, 2013. 54(2): p. 172-6.

<sup>5</sup> Officer, A., et al., Valuing older people: time for a global campaign to combat ageism.

<sup>6</sup> Levy B, B.M., Implicit ageism, in *Ageism: stereotyping and prejudice against older persons*, T. Nelson, Editor. 2002, MIT Press: Cambridge (MA). p. 127-8.

<sup>7</sup> Cuddy, A.J.C., M.I. Norton, and S.T. Fiske, This old stereotype: The pervasiveness and persistence of the elderly stereotype. *Journal of Social Issues*, 2005. 61(2): p. 267-285.

<sup>8</sup> Levy, B., Stereotype Embodiment: A Psychosocial Approach to Aging. *Curr Dir Psychol Sci*, 2009. 18(6): p. 332-336.

<sup>9</sup> Applewhite, A., *This Chair Rocks: A Manifesto Against Ageism*. 2016: Networked Books.

<sup>10</sup> Levy, B.R., et al., Association Between Positive Age Stereotypes and Recovery From Disability in Older Persons. *Jama-Journal of the American Medical Association*, 2012. 308(19): p. 1972-1973.

<sup>11</sup> Levy, B.R., et al., Longevity increased by positive self-perceptions of aging. *Journal of Personality and Social Psychology*, 2002. 83(2): p. 261-270.

<sup>12</sup> Cook, J., The socio-economic contribution of older people in the UK. *Working with Older People*, 2011. 15(4): p. 141-146.

<sup>13</sup> Organization, W.H., *World report on ageing and health*. 2015, Geneva: World Health Organization.



**Alana Officer**

Alana joined the World Health Organization's Department of Ageing and Life course in July 2014 to lead the development of the *World Report on Ageing and Health*, which was published in October 2015. She currently oversees the Organization's work on age-friendly environments including the Global Network on Age-Friendly Cities and Communities as well as the Global Campaign to Combat Ageism.

# AGING WELL WITH HEALTH TECHNOLOGY

Kimberly O'Loughlin | SENIOR VICE PRESIDENT, PHILIPS HOME MONITORING

Are you ready to live to 115 years old? It is a known fact that the aging population is growing faster than ever and experts have recently predicted that we've reached our age ceiling with 115 being the longest a human can live<sup>1</sup>. In the United States, senior citizens are expected to constitute almost a quarter of the population within the next 15 years<sup>2</sup> and nearly one-third of the European population is projected to be age 65 or over by 2060<sup>3</sup>. We're living longer, aging on our own terms, and approaching the process of aging very differently than we did 50 years ago.

As life expectancies rise so does the number of people living with chronic conditions, placing a growing burden on health care systems and providers—and greater stress on caregivers.

It's not just longer life expectancies that are changing our outlook on aging. We live in an era when technology is playing a pivotal role in how we approach our health, and

**We see three key areas in which connected technologies can transform health care for the senior population: medication management, predictive analytics, and connected home care.**

seniors are becoming more tech-savvy and engaged in their personal health than ever before.

#### **Connected Technologies for Connected Care**

Connected solutions can be beneficial for all parties involved in the aging journey: patients take a more

active role in their own care; caregivers are given peace of mind, knowing their loved ones are safe; and providers have a 360-degree overview of patient health and safety, which can help decrease both health care costs and hospital readmissions.

At Philips, we see three key areas in which connected technologies

can transform health care for the senior population: medication management, predictive analytics, and connected home care.

### Medication Management

For prescription medication to be effective, it needs to be taken as prescribed; however, studies have shown that approximately 50 percent of patients in their treatment of chronic illnesses do not adhere to their physician's long-term therapy recommendations<sup>4,5</sup>. And with 42 percent of older Americans taking five or more medications at a time<sup>6</sup>, the chance for adherence mistakes is likely.

Connected medication dispensing solutions, like Philips Medido, help seniors keep up with their complex medication schedules. The solution remotely alerts nursing staff when medication is not taken, helping streamline the normally time-consuming task of medication management and allowing the care team to focus on other issues.

A recent study found that connected medication dispensing technology can greatly benefit patients with chronic conditions, helping them better comply with long-term therapy. Over the span of a year, user data from more than 1,300 patients in the Netherlands was analyzed. The patients on average took three doses per day. The study found that<sup>7</sup>:

- Of patients using Philips Medido, 96 percent adhered to their medication schedules.

- Patients who required two or more medication doses per day maintained an adherence rate of about 94 percent with Medido
- Medication adherence remained consistent over time, with no significant differences during the yearlong study.

### Predictive Analytics

As the worlds of health care and technology continue to converge, we are better positioned to develop analytical tools that will allow clinicians to better predict health-related events and provide early intervention. These technologies are especially important whenever seniors transition from the hospital back home, where many health issues occur.

Medical alert devices have empowered seniors for decades to be active and independent. These devices also capture important data about behavior and eventual outcomes—a function that has exciting possibilities for helping to improve outcomes, reduce hospital readmissions, and increase patient satisfaction.

Philips CareSage is a predictive analytics engine that allows care providers to remotely manage at-risk patients and to predict whether a patient will need emergency transport in the next 30 days. CareSage analyzes real-time and historical data from health care providers, and uses Philips Lifeline's AutoAlert technology to focus on senior

patients as they return home after a hospital or health facility stay. As the senior population grows and the industry moves toward a value-based care model, health systems worldwide are looking to use predictive analytics to extend care to the home in a cost-effective manner while reducing readmissions and providing better patient outcomes.

### Connected Homes

With an aging population comes an increase in demand for caregivers. This also calls for innovative technology to help supplement the growing demand for in-home care.

In the United States, Philips has teamed up with Right at Home to redefine the home care landscape by offering a flexible and affordable blend of in-home and remote care options that proactively help seniors with cognitive and/or physical frailties. With a connected sensors platform and powerful data analytics, this unique “blended care” approach offers insights and adapts to a senior's particular needs, providing “always-on” home care and peace of mind to caregivers. It consists of connected, discrete, non-camera-based passive sensors placed strategically in the home that monitor the environment 24/7. For example, if the senior is getting up multiple times during the night to use the bathroom, or if he or she is taking an unusually long time to get out of bed in the morning, these may be early indicators that something is wrong.



# Improving medication adherence and cost of care with connected solutions

New data analysis of more than 1,300 elderly patients with chronic conditions shows Philips Medido dispensing solution improves adherence and cost savings dramatically

## Insights

During the treatment of chronic illnesses approximately

**50%**

of patients do not adhere to their physician's long-term therapy recommendations.



In the US, poor adherence to medication schedules has been estimated to incur costs of approximately

**\$198 billion**

per year.

## Our study

The average age of patients was

**78**

years old.

**61%**

were female.



**96%**

of patients are adherent to their medication schedule when using the Philips Medido automated connected medication dispensing solution.



**881,000**

medication moments of 1,379 patients studied – on average 3 per patient per day.



An estimated cost saving of **40%**

per patient could be achieved when using the Philips Medido automated connected medication dispensing solution with time saved during nurse visits while remaining high levels of medication adherence.\*



\*Based on calculations in the Dutch context that were not part of the adherence data study.

## A Global, Collaborative Approach

As life expectancy increases and the stigma associated with aging decreases, expectations around aging need to be shifted, and new ways of thinking and innovations will emerge to shape the future. The industry needs to better connect health care systems with communities, and the organization AgingWell Hub is a great example of this in action. Through AgingWell Hub, leaders in aging, such as AARP and the Global Social Enterprise Initiative at Georgetown

University's McDonough School of Business, unite to tackle key issues facing this demographic and their caregivers.

In another example of collaboration, Philips introduced Aging Well Services, the company's initiative to bring together sets of personalized services, solutions, and content to guide and support seniors and their caregivers toward higher-quality independent living. The goal was to create an ecosystem of partners that would help bring relevant innovations to the market. One of

the first partners to offer more personalized and connected care was RespondWell, which will offer customizable tele-rehabilitation services from the convenience of home for seniors who are recovering from surgeries like knee replacements or from injuries related to falls.

## Where Are We Headed Next?

The aging process is headed for a revolution, and we are excited to be a part of it. It's up to today's innovators to keep the pipeline of technology rich with solutions that can





- 1 CareSensus helps track activity across the house, including in the kitchen where it can indicate patterns around meal preparation.
- 2 Connected medication dispensing solutions, like Philips Medido, help seniors keep up with their complex medication schedules.



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- 6 HCUP FACTS AND FIGURES: STATISTICS ON HOSPITAL-BASED CARE ... (2008). Retrieved November 22, 2016, from [http://www.hcup-us.ahrq.gov/reports/factsandfigures/2008/pdfs/FF\\_report\\_2008.pdf](http://www.hcup-us.ahrq.gov/reports/factsandfigures/2008/pdfs/FF_report_2008.pdf)
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**Kimberly O'Loughlin**

Kimberly O'Loughlin is Senior Vice President and General Manager of Philips, Home Monitoring. She leads the global business serving seniors and their caregivers with safety, health and connected solutions including Philips Lifeline emergency response services, medication management solutions and a cognitive health service. Kimberly has over 25 years of leadership experience at companies that include Vonage, AIG and AT&T.

truly make an impact on the aging journey and empower seniors to live the active, engaged lifestyles they demand and deserve. To achieve this, we must work together to develop connected environments where technology, design, and science are united in one ecosystem enabled by open platforms, interoperability, and risk sharing. With this shared goal in place, we can feel confident that we are firmly on the path to creating a culture where aging well is the norm rather than the exception. ●

# DESIGNING FOR SOCIAL IMPACT

Newsmaker Interview with Burak Cakmak  
Dean, School of Fashion, Parsons School of Design

**Since the early days of his career, Burak Cakmak has been out to transform the fashion industry for the better. He's best known for spearheading innovation-driven sustainability efforts as the first Director of Corporate Sustainability for luxury brands, including Gucci, Bottega Venetta, Yves Saint Laurent, Alexander McQueen, Balenciaga, Stella McCartney, Boucheron, and many others.**

Now Cakmak is designing for change at the very foundation of his industry: through the education of the next generation of leaders. Appointed in 2015 as Dean of Fashion at the New School's highly regarded Parsons School of Design, Cakmak wants to expand the institution's "pedagogical approach to what design stands for, and can do in the world." That is, under his leadership the school is looking to develop both talent and social leadership, and a generation who will "create products that don't just look good but do good."

Those aspirations sync with AARP's foray into the fashion world—namely, with AARP's Third-Year Parsons Student Design Competition, which will encourage students to design for persons with disabilities and functional limitations.

With those plans underway, AARP had the chance to build on its partnership with Parsons through this conversation with Cakmak about the evolving fashion industry—where it is now, and where it needs to go.

**Let's start with a little about you: what is your role at Parsons, how long have you been there, and what brought you to the school?**

I am the dean of fashion at Parsons School of Design. I took this role in August 2015. I was very excited to come to Parsons to lead the School of Fashion. I am working closely with our faculty and university leadership to shape the future of design education here in the United States. Parsons is the premier design school in the country and I felt this position represented an opportunity to influence the minds of young designers in society. I'm focused on guiding the academic programs at Parsons School of Design into a new era, where an emphasis on socially conscious and transformational design formulates the educational approach and training of the next generation of creators.

**How can fashion impact how we view ourselves (not specific to aging, so it's open to answers about gender, race, ethnicity, etc.)?**

Fashion is ultimately a tool for expressing an individual's self and personality. It's a mode of communication, a means of self-representation, and potentially a form of social empowerment. What you wear can empower you to not only see yourself differently, but also to imagine new possibilities for yourself and for social change. The garments we wear—and take for granted on a daily basis—convey a range of emotions, as well as social position and influence. On a collective level, garments represent an opportunity for uniting communities and effecting social change.

**You've had a truly global career. When it comes to social impact, what differences do you see working in the fashion industry versus fashion academia?**

From my experience spearheading corporate social responsibility initiatives for several global luxury brands and retail companies, I've found that the industry is making great strides to consider how it's managing its own societal impact. This is a recent turn away from the model in which shareholders dictated a company's focus on immediate returns alone. This evolution in thinking continues to amaze me and shows promise for future long-term gains. In academia, I'm noticing fewer boundaries and barriers to exploring new and innovative ideas. Our faculty and students are considering more expansive ways to identify and address social needs. Through a continuous open

dialogue between industry and academia, in which we think beyond the boundaries of industry versus education, I'm confident we as a society can advance practical solutions to change how industries think about and produce fashion.

**Parsons has received praise for integrating social impact into its curriculum. Can you tell us more about how this concept started and why you thought it was important enough to infuse into the teaching DNA of the school?**

Fashion designers have long been sensitive to shifts in consumer perception of their brand and their products. And art schools have historically met the needs of the industry by graduating students who have been well prepared to fill roles already in place in the industry. But this is not necessarily a reflection of how all designers have thought about their work and what they put out into the world. Parsons School of Design seeks to expand its pedagogical approach to what design stands for and what designers can do in the world. Through curricular innovation, we are giving our students the tools to actually effect change and solve critical social issues, rather than to solely create beautiful products. In tandem with The New School's mission, Parsons School of Design affords the unique benefit of bringing together social researchers, artists, and designers to work across and between disciplines to create positive change in the world.

**Parsons is a globally respected institution in many different areas. Specifically how has the philosophy of Parsons School of Fashion changed over time?**

We are at a particular moment in history when fashion has become a greater force than ever. It's actually a movement. Fashion not only touches every industry, but it's used as a vehicle in so many areas of enterprise—technology, automotive, energy, medicine, social justice—the list goes on. It's come to play a much larger role in society in recent decades. But that means that fashion, as a whole, has had to take a critical look at itself in order to better understand its own role as a global phenomenon. Parsons School of Design is at the forefront of this process, which means understanding how fashion's impact needs to be a responsible and sustainable one on the rest of society. This means creating products that don't just look good but do good.

**Because fashion is so intimately bound with questions related to the body, fashion design programs have a unique opportunity to go into depth to create garments for those with functional and physical limitations.**



Inside the studio at Parsons School of Design.

**We understand that the school is placing more emphasis on user-centric design. Can you explain what this is and why it is a priority in the curriculum?**

Not only has fashion become a global phenomenon, but the number of people who are engaging with fashion across the world has swelled. Fashion is truly a global community. But it's not just about designing and putting products out into the world. User-centric design, within the philosophy of Parsons School of Design, means engaging critically with the reasons why—for what purpose?—we are creating things. In order to be a successful brand, designers have to understand how to meet the needs of a very diverse population.

**What role do you see for fashion design schools in pushing the envelope on design for individuals with functional or physical limitations? Does it even have a role or a responsibility?**

Because fashion is so intimately bound with questions related to the body, fashion design programs have a unique opportunity to go into depth to create garments for those with functional and physical limitations. And because fashion touches everyone, it's a natural starting point for pushing the boundaries of what's possible. By engaging with the form and function of our bodies, fashion design can easily experiment with designing for people who encompass a diverse range of abilities. What's more, the classroom is a safe space to test out new ideas, to connect with other disciplines students might know less about, and to find out whether their ideas actually work for a broad range of populations.

**Step out of your role for a second and look at other academic disciplines. What other areas of academia would benefit from an self-evaluation of their social impact and responsibility?**

Traditional MBA programs have historically failed to address issues of social impact and responsibility, and in my opinion there is a huge opportunity for any educational institution offering business degrees to evaluate their programs and actively incorporate questions of societal context, and alternative models for business that can operate in alignment with sustainability principles, as they are evolving curriculums.

**Where do you see the school in 10 years, 20 years? Will current demographic trends have any impact on how we will be designing in 2030?**

Our current approach for a cross-disciplinary design education that puts the user in the forefront of the design process will help reinforce a systems approach to design rather than a pure product focus. Within the coming decades, I fully expect this approach to become a standard way of teaching design. As the current group of designers start their own enterprise and enter the industry, they will shape and influence the design businesses, as we know today. ●

This interview was conducted by Lynda Flowers, Senior Strategic Policy Advisor, AARP Public Policy Institute in consultation with Jonathan Stevens, Senior Vice President, AARP Thought Leadership. For more information about AARP's Disrupt Fashion movement, contact: [LFlowers@aarp.org](mailto:LFlowers@aarp.org)



**Burak Cakmak**

Burak Cakmak has extensive experience in forging strong partnerships as a business strategist and sustainability expert for some of the largest, most prestigious retail companies and luxury brands in the world. With his expertise in the field of sustainable design, he is focused on guiding the academic programs into a new era where an emphasis on socially conscious and transformational design formulates the educational approach and training of the next generation of venerable creators.

# THE PROMISE OF TECHNOLOGY

**Katie Smith Sloan** | EXECUTIVE DIRECTOR  
INTERNATIONAL ASSOCIATION OF HOMES AND SERVICES FOR THE AGEING (IAHSA)

Governments and the private sector are waking up to the reality that our world is aging. We are witnessing an increased understanding that aging, as part of the life cycle, demands our attention. Yet, societies around the world are ill-prepared for the massive demographic shift that is already taking place in some countries. The implications of an aging population are widespread, affecting economics, politics, social norms, and jobs, among other areas. As we consider solutions, we know that technology has an important role to play in supporting many dimensions of aging and aging societies.

The International Association of Homes and Services for the Ageing (IAHSA) and its partner organization, LeadingAge, have established an ambitious agenda to understand the role that technology has and will continue to play and to facilitate a dialogue among providers



of services and supports, technology companies, and the research community. The platform for this dialogue is the LeadingAge Center for Aging Services Technologies (CAST). In the 14 years since CAST was launched, we have seen a marked shift from working hard to get the attention of technology

companies that were not recognizing the opportunities inherent in focusing on the older population to a near avalanche of products and solutions for this demographic.

There are products focused on social engagement, health and wellness, connecting generations, and navigating our complex system



- 1 (previous page) The top prize at the 2014 LeadingAge HackFest went to a software application called Gaitmaster designed to reduce falls by tracking an older adult's range-of-motion and movement.
- 2 The 2015 Hackfest winner is an app called Momentum, which empowers older adults to improve their physical abilities with nothing more than an affordable smartphone.

of services and supports. Most—if not all—of these products use commonly available computing platforms, such as laptops, tablets, touchscreen computers, and smartphones, to facilitate adoption. The more familiar consumers are with the technology, the more likely they are to use a new application and program. By the same token, the easier to use and the higher the value the programs offer, the more likely they are to be adopted. There are also many products that proactively recognize that prevention and early interventions are key to maintaining health and wellness in later life. These include telemedicine—bringing health professionals to your home via technology—and remote monitoring to manage chronic conditions. Imagine the benefit to older people in rural areas of being able to connect with a health professional remotely to talk about symptoms or changes in health status. Once these

## **IAHSA and CAST have a vision for technology-enabled integrated and coordinated care and support systems in communities.**

systems are fully mature, this kind of technology will change lives.

IAHSA and CAST have a vision for technology-enabled integrated and coordinated care and support systems in communities. There is no question that this kind of system will be of significant benefit to consumers. They will find and have access to the services they need, be able to monitor their progress, connect with their health professionals, and be in touch with their own aging process. This vision recognizes that aging is a process and that older people are

not homogeneous. Their needs and preferences vary greatly and change over time. Technology not only can adapt to but can drive solutions based on those differences.

Hence, it is critical to approach technology as a part of the solution to specific challenges associated with aging. In the United States, CAST proudly co-led the Aging Services Technology Study Report to Congress, which looked at the promise of technology from the perspective of prevalent, costly, and burdensome issues associated with aging. For more information, visit: <http://www.leadingage.org/high-tech>.

The variety of products for the aging population and the dynamism of this market inevitably results in a vast range from efficacy to cost-effectiveness. Planning for and selecting the most appropriate technology solution requires not only understanding the challenges or opportunities associated with that technology solution, but also gathering a lot of information about ever-increasing commercially available products.

We know from experience that the best products on the market are those developed from user-driven design. It should not be such a novel idea to work with older consumers to understand their needs, how they manage daily tasks, how they use technology now, and how it might best be incorporated into their daily lives so that it enhances what they already do—or wish to do. Those who develop these technologies should see consumers as their partners, rather than their market, during the development stage. Data on spreadsheets are simply not enough—dialogue and observation in order to co-create are essential.

For the past three years, LeadingAge and CAST have hosted a HackFest, focused on user-centered development of technologies for an older population. Teams of older adults, students, and technology experts, as well as professionals from the aging services sector, work together in multidisciplinary teams for two days to come up with an idea—or sometimes even a prototype. The results are creative and ambitious, but the dialogue that happens along the way is priceless. Students begin to really understand the issues (both challenges and opportunities) associated with aging, and begin to imagine solutions that are specific to addressing those issues, banking on opportunities and overcoming challenges. Older adults are energized by the engagement and the chance to influence technology and solution development—and be heard. For those who have participated over the years, it is life-changing.

CAST has had the opportunity to introduce the realities and possibilities of technologies focused on an older population in a number of countries—Malta, The Netherlands, France, Cyprus, China, and Australia, among others. We firmly believe that technology has a significant role to play as an enabler and facilitator of all the dimensions of quality of life in later years—not the least of which are social connections, wellness, and access to health care. We are years away from realizing the full potential of technology, however, based on what we see now in the marketplace, we have some important clues about future generations of technology that will truly make a difference. ●



**Katie Smith Sloan**

Katie Smith Sloan is president and CEO of LeadingAge, formerly the Association of American Homes and Services for the Aging (AAHSA). Sloan also serves as the executive director of the International Association of Homes and Services for the Ageing (IAHSA), a global network of aging services organizations committed to quality of life for people as they age.





LIVABLE  
COMMUNITIES

# LOS ANGELES AGES INTO EXCELLENCE

Eric Garcetti | MAYOR, CITY OF LOS ANGELES



Los Angeles is building the model city of the 21st century. We're envisioning tomorrow, building it today, and doing it with our people as our foundation and motivation.

LA is home to the most diverse collection of individuals ever assembled in one place: Angelenos come from more than 140 countries and speak more than 90 languages and dialects.

That incredible diversity—and 235 years of history—have made us resilient and forward thinking. We don't run from our challenges; we embrace them. We don't shy away from opportunities; we reach for them.

Today, we are investing billions to modernize our infrastructure. We're the green technology capital of the world. We're creating open space to preserve a natural heritage unlike any other, and we're expanding public transit from the coast to the valleys—and everywhere in between. We've also worked hard to widen the circle of opportunity in Los Angeles by raising the minimum wage and launching a program to offer one year of free tuition at our community colleges.

This period of historic progress is accompanied by profound

**This period of historic progress is accompanied by profound demographic change in our city. Angelenos have always been among the most diverse people on the planet, and are now living longer.**

demographic change in our city. Angelenos have always been among the most diverse people on the planet, and are now living longer: more than half a million LA residents are over the age of 60, and that figure is expected to increase by 50 percent over the next two decades.

As mayor, I welcome this trend: it means we have a growing number of people with the wisdom and experience to help guide us into the future—in our classrooms, our workplaces, and even at City Hall. I also see an opportunity to

build a city that works for everyone, because age should never be a barrier to accessing and enjoying all that Los Angeles has to offer. That's why I am committed to taking action today to accommodate the needs of older Angelenos now and into the future—and making sure that seniors are part of that decision-making process.

Los Angeles is a part of the AARP Network of Age-Friendly Communities and the World Health Organization's Global Network of Age-Friendly Cities. Last May, we



- 1 Mayor Garcetti at CicLAvia in Downtown Los Angeles
- 2 Mayor Garcetti signing the Purposeful Aging Executive Directive

strengthened that commitment when I signed an Executive Directive on Purposeful Aging. The directive requires all of our city departments to thoroughly consider the needs of older adults—and the challenges they often face, such as impaired physical mobility and diminished sensory awareness—when creating programs and policies. I also formed a Task Force on Purposeful Aging, which is made up of city departments whose work directly affects the lives of older Angelenos; it will create a strategic plan for an age-friendly Los Angeles.

That means taking action in ways that people can see and feel in their everyday lives. For example, our Economic and Workforce

Development Board is developing a blueprint to better connect older Angelenos to new employment opportunities. We're building out our transportation system and taking special care to keep fares low for seniors, who are frequently on fixed incomes but increasingly reliant on public transit. Our Housing and Community Investment Department is identifying affordable housing units for older adults. LA's Recreation and Parks Department is ramping up the number of senior wellness programs available in every community. The Bureau of Street Services and Department of Aging have teamed up to assess the condition of streets in neighborhoods with a high density of older adults,

## All of these efforts are moving us forward in a city where older adults are already treasured and active participants in our civic landscape.

with a particular focus on corridors with the greatest need for street furniture and shade structures. And Vision Zero—our effort to put an end to traffic deaths in LA—will identify which intersections are most dangerous for older adults, so that we can make targeted improvements that can save lives.

Mobility is such a big part of life in Los Angeles and our transportation authority, Metro, always takes care to consider the needs of older adults who use mass transit. Our buses are designed to accommodate all types of wheelchairs, are equipped with ramps for easier boarding, and have spaces to secure wheelchairs and walkers. Every one of our trains and buses has space set aside for older adults and customers with disabilities. And for those who have spent most of their lives behind the wheel, the newly expanded On the Move Rider's Club is dedicated to teaching older adults how to rediscover Los Angeles on public transit.

All of these efforts are moving us forward in a city where older adults are already treasured and

active participants in our civic landscape. The evidence is everywhere: last year, more than 1,200 older adults volunteered at our public libraries sharing their wisdom with younger Angelenos and enriching our city by fostering better understanding between generations. LA is home to 16 multipurpose senior centers that provide legal assistance, health and nutrition services, and other resources—in several languages, including Spanish, Mandarin, Korean, and Tagalog—to help improve seniors' quality of life.

This is incredible, life-changing work to make sure that LA continues to be a safe, prosperous, livable, and well-run city for everyone. And I can't wait to do more—because this should always be a place where the years are a benefit, not a burden. ●



**Eric Garcetti**

Eric Garcetti is the 42nd Mayor of Los Angeles. His "back to basics" agenda is focused on job creation and solving everyday problems for LA residents. Garcetti was elected four times by his peers to serve as President of the Los Angeles City Council from 2006 to 2012. From 2001 until taking office as Mayor, he served as the Councilmember representing the 13th District which includes Hollywood, Echo Park, Silver Lake, and Atwater Village—all of which were dramatically revitalized under Garcetti's leadership.



LIVABLE  
COMMUNITIES

# CREATING AN AGE-FRIENDLY HONG KONG

Grace Chan | CHIEF OFFICER, HONG KONG COUNCIL OF SOCIAL SERVICES



# While aging in place as a policy objective is welcomed by the public, it is important to work out a detailed framework on how the entire society can work together in order to achieve this goal.

## Aging Population in Hong Kong

The number of people ages 65 or older is expected to rise sharply in the next 30 years. According to the 2011 population census, there were 941,312 older persons in Hong Kong, constituting 13.3 percent of the entire population. The number of older persons increased at an average annual growth rate of 4.8 percent over the 50-year period from 1961 to 2011, compared with the growth of the whole population, at 1.6 percent, over the same period. Presently, 1 in 8 people in Hong Kong is in this age group (age 65+); by 2033, that figure will be 1 in 4.<sup>1</sup>

## Aging Policy in Hong Kong

Facing head on the inevitability of an aging population, the Hong Kong Special Administrative Region (HKSAR) government has never failed to include older adults in its policy addresses since 1997. That year, the chief executive of HKSAR made “Care for the Elderly” a strategic policy objective of the HKSAR government. In responding to the Second World Assembly on Aging in 2002, “Active and Healthy Aging” was adopted as a guideline for Hong Kong’s Elderly Commission. The concept of “aging in place” was adopted as a guiding principle by a number of bureaus, with the principle of “supporting aging in the community as the core; institutional care as back-up” reiterated by the chief executive in his policy address in 2014. While aging in place as a policy objective is welcomed by the public, it is important to work out a detailed framework on how the entire society can work together in order to achieve this goal.

## Age-Friendly Hong Kong

The age-friendly city is regarded internationally as a promising benchmark in terms of aging policy framework. Driven by the concept of the age-friendly city, the World Health Organization (WHO) launched the Age-Friendly Environments Program to address the

environmental and social factors of “active aging.”<sup>2</sup> WHO developed a checklist under each of the eight domains<sup>3</sup> and these checklists detail all of the core features of an age-friendly city. These core features must also be understood and interpreted from a life course perspective, because older adults do not belong to a homogeneous group when they age. To realize the concepts of an age-friendly city according to the checklists, more than one government department needs to work together, depending on the various administrative roles of each department. Hong Kong was not a participating member when WHO first launched the program on age-friendly cities in 2007. Yet, as an advocate for the development of social welfare, the Hong Kong Council of Social Service (HKCSS) promoted the concept of an age-friendly city in Hong Kong by establishing in 2008 the Age-Friendly Hong Kong Steering Committee with the following core tasks:

- a. to promote public understanding on age-friendly Hong Kong;
- b. with the participation of elders and stakeholders, to foster solutions to improve the lives of older people; and
- c. to exchange information and disseminate best practices.

To achieve these goals, the committee has solicited support from various nongovernment organizations (NGOs) and other local agencies at the district level since 2009. To date, age-friendly city measures have been started or implemented in 18 districts, and 4 task forces have been formed:

- a. Task Force on Expert Group and Alliance Building;

## 8 AGE-FRIENDLY DOMAINS



**Community Support  
and Health Services**



**Civic Participation  
and Employment**



**Outdoor Space  
and Buildings**



**Social Participation**



**Transportation**



**Communication  
and Information**



**Housing**



**Respect and  
Social Inclusion**

- b. Task Force on Evaluation and Evidence-Based Study;
- c. Task Force on Capacity Building and Good Practice Sharing; and
- d. Task Force on Promotion Strategy and Appreciation Scheme.

As a council that coordinates social service agencies, HKCSS has been a key representative of many local NGOs to advise the government on many major social policies. In this sense, four approaches—the leading roles of the government, the bottom-up approach with top-down support, district-based initiatives, and comprehensive and regular data collections—are highly encouraged in establishing age-friendly cities in Hong Kong.

In 2016, Age-friendly Hong Kong reached a key milestone. With public support from government officials, the Age-friendly Hong Kong initiative was mentioned in an official Policy Address. The government promises to make continuous efforts to develop Hong Kong into an age-friendly city.

### **Stakeholders' Alignment in the Age-Friendly City Program**

The government is progressively promoting barrier-free access facilities at public walkways under the Universal Accessibility Programme. Slopes and staircases are common in Hong Kong, and the government is moving toward providing age-friendly lifts and elevated pedestrian walkway systems.

The use of information technology is also undergoing review—for instance, allowing longer pedestrian “green times” at intersections to accommodate the slower pace of the elderly or the infirm. Additionally, a new interface and new functions are going to be introduced to the HKeTransport app of the Transport Department. The government fully recognizes the need for priority seating for the elderly in existing public facilities such as markets and sports centers. Before any new government planning and construction take place, age-friendly designs will be incorporated.

Another example of aging in place is starting to happen. Apart from fitting public toilets with non-slip surfaces, auto-sensor water taps, and handrails according to prevailing design standards, the government has promised to install additional age-friendly facilities where practical, and it will consider providing larger toilet compartments in newly built public toilets for priority use by elderly people with or without mobility needs.

Housing is a big issue in Hong Kong. Currently, around 40 percent of seniors live in government rental estates. Over the years, a universal design has been adopted for newly built units, which includes widening the flat entrance as well as the kitchen and bathroom doors, and using safer materials, such as nonslip floor tiles. This way, residents can safely live in the same flat even into old age. It is important that occupational therapists are assigned to pay home visits to assess and advise on the home environment and health conditions of older adults. The services offered under the scheme are free of charge, and elderly owners can decide whether

to engage a contractor to carry out the proposed works. Eligible elderly owners who cannot afford the maintenance costs may apply for a maximum government grant of HK\$40,000.

The Buildings Department agreed to allocate time to review the Design Manual and recommend updates. The Government will continue to reserve sites for elderly care facilities.

And last but not least, in order to help elderly people integrate into the digital world, the government has financed the development of the eElderly website, which will offer information about services for seniors. The government also promotes the adoption of barrier-free website design and mobile apps by public and private sectors for the convenience of the elderly. Funding has been provided to develop mobile apps that will offer cognitive training for elderly people who suffer from dementia and that will help the elderly search for information on available activities. Given all of the positive outcomes, government funding and additional resources have been set aside for communities to promote development of age-friendly communities at the district-based level.

With the concerted effort—from both the top down and the bottom up—we are dedicated to making Hong Kong an age-friendly city. ●

<sup>1</sup> Hong Kong Census and Statistics Department, 2012

<sup>2</sup> <http://www.censtatd.gov.hk>

<sup>3</sup> WHO, “Global Age-Friendly Cities: A Guide,” 2007, [http://www.who.int/ageing/age\\_friendly\\_cities\\_guide/en/index.html](http://www.who.int/ageing/age_friendly_cities_guide/en/index.html).

<sup>4</sup> WHO, “Checklist of Essential Features of Age-Friendly Cities,” 2007, [http://www.who.int/ageing/publications/Age\\_friendly\\_cities\\_checklist.pdf](http://www.who.int/ageing/publications/Age_friendly_cities_checklist.pdf).



**Grace Chan**

Ms. Grace Chan is the Chief Officer (Elderly Service) of the Hong Kong Council of Social Service (HKCSS), which is an umbrella federation of over 440 non-governmental organizations (NGOs) that are providing 90% of the social welfare services through 3,000 operating units in Hong Kong. Ms. Chan sits on a number of networks, committees and appeal boards in the statutory bodies of the Hong Kong SAR and Hospital Authority, under Administration Wing, Home Affairs Bureau. In 2013, she was appointed as a member of Consumer Council. She also joined the Elderly Commission as a member in 2013. Apart from this, Grace is formally invited as a member of the Strategic Advisory Group for the WHO Global Network of Age-friendly Cities and Communities.





# DEMENTIA-FRIENDLY ENVIRONMENTS

Kirsty A. Bennett and Richard Fleming | DEMENTIA TRAINING AUSTRALIA

Indoor and outdoor environments have a vital role to play in enabling all of us to live well and enjoy life, and they are especially important for people living with dementia. The design of the environment can have a direct impact on a person's ability to go outside, make a cup of tea, or sit and enjoy the morning sunshine. Design is crucial in determining whether a person has a good day or is able to do what she or he wants to do. A recent study found that the environment contributed 14.8 percent to the quality of life of older people living in a residential facility.<sup>1</sup> (It is interesting to note that medication was not found to be statistically significant in this regard.)

Key design principles have been used with great success to structure living environments for people with dementia, especially in residential facilities or acute/health care settings. Evidence shows that a well-designed environment can reduce

depression, agitation, anxiety, confusion, conflict, restlessness, and the number of falls; it can also enhance a person's mobility, vitality, and self-help skills, as well as his or her ability to complete daily tasks, find his or her way, and use a toilet.<sup>2</sup> These evidence-based design principles are summarized on the following pages.<sup>3</sup>

## Environmental Assessment Tools

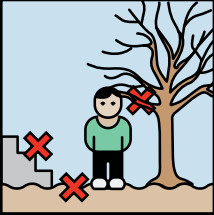
It is important to remember that these are design principles, not checklists. They are able to be used in any setting and can respond to an enormous variety of cultural, social, and economic backgrounds as well as variations in climate, geography, site services, and budget. Providers are able to decide which principles they wish to give highest priority to in order to best respond to the needs of the person living with dementia and his or her vision for a way of life. Any

project requires a balancing of priorities. It is important, however, to understand the implications of our decisions and to be aware of the possibilities that exist to use the environment to enable and assist people living with dementia.

One way to explore the principles is to use an environmental assessment tool that asks several questions about each principle. It is ideal if this can be completed by a small group, as this arrangement can encourage a focused conversation. A number of environmental assessment tools are freely available from the Enabling Environments or Dementia Training Australia website.<sup>4</sup> There is also an app.<sup>5</sup> It is important to remember that the purpose of these tools is not to gain a score but rather to promote conversation and identify strengths and weaknesses of an environment. They can be used in existing buildings or when designing a new one.

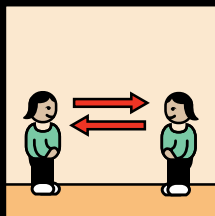
## Key Design Principles

### UNOBTRUSIVELY REDUCE RISKS



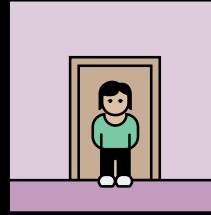
People with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks must be removed unobtrusively, and safety features must not be obvious in order to avoid causing frustration, agitation, anger, apathy, and/or depression.

### ALLOW PEOPLE TO SEE AND BE SEEN



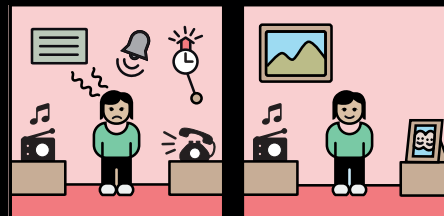
The provision of an easily understood environment will help to minimize confusion. It is particularly important for people with dementia to be able to recognize where they are, where they have come from, and where they can go. When people can see key places, they are more able to make choices and decide what they would like to do.

### PROVIDE A HUMAN SCALE



The scale of a building can affect the behavior and feelings of a person with dementia. The experience of scale is influenced by the number of people who the person encounters, the overall size of the building, and the size of its individual components (such as doors, rooms, and corridors). The scale should encourage a sense of well-being and enhance the competence of a person.

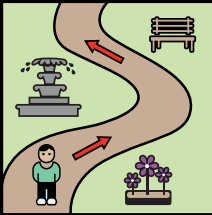
### MANAGE LEVELS OF STIMULATION



**Reduce unhelpful stimulation.** Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimize exposure to unhelpful stimuli, such as unnecessary or competing noises, multiple signs, posters, and clutter. The full range of senses must be considered. Too much visual stimulation is as stressful as too much auditory stimulation.

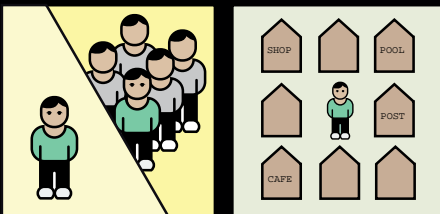
**Enhance helpful stimulation.** Enabling people with dementia to see, hear, and smell things that give them cues about where they are can help to minimize their confusion and uncertainty. Consideration needs to be given to providing redundant cueing—that is, giving several cues to the same thing and recognizing that what is meaningful to one person will not necessarily be meaningful to another.

## SUPPORT MOVEMENT AND ENGAGEMENT



Purposeful movement can increase engagement and maintain a person's health and well-being; it is encouraged by providing a well-defined pathway, free of obstacles and complex decision points, that guides a person past points of interest and offers opportunities to engage in activities or social interaction. The pathway should be both internal and external, providing an opportunity and reason to go outside when the weather permits.

## PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS



**In a unit.** People with dementia need to be able to choose to be on their own or to spend time with others. This requires the provision of a variety of places—some for quiet conversation and some for larger groups—as well as places where people can be alone.

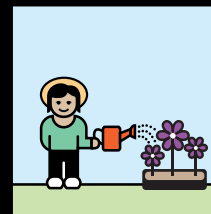
**In the community.** Without constant reminders, a person with dementia will lose his or her sense of identity. Frequent interaction with friends and relatives can help to maintain that identity, and visitors should be able to drop in easily and enjoy being in spaces that encourage interaction. Ways of maintaining connections within the community also need to be explored. A coffee shop near a residential facility, for example, may allow a person with dementia to go there easily, either alone or with a friend.

## CREATE A FAMILIAR PLACE



People with dementia are more able to use and enjoy spaces and objects that are familiar to them. The environment should afford them the opportunity to maintain their competence through the use of familiar building designs (internal and external), furniture, fittings, and colors. The involvement of the person with dementia in personalizing his or her environment with familiar objects should be encouraged.

## DESIGN IN RESPONSE TO A VISION FOR WAY OF LIFE



The vision for way of life can vary greatly. Some residential care facilities, for example, will choose to focus on engagement with ordinary activities of daily living; others will focus on the ideas of full service, recreation, a healthy lifestyle, or spiritual reflection. A similar range can be found in acute/health care settings. The way of life that is offered needs to be clearly stated; the building design should both support it and make it evident to residents and staff.

# The environment has a key role to play in helping a person with dementia to live well and use his or her abilities.

## Dementia-Friendly Communities

Until recently, designing for people with dementia has focused mainly on designing residential care facilities and acute/health care settings, and improving a person's home. However, if a person living with dementia is to truly live a meaningful life, then he or she also needs to be able to engage with the wider community. It is essential that he or she can do the things that have always been important, such as going down the street, doing the shopping, or paying a bill at the local council office. To this end, a principles-based audit tool has been developed for use in the community.<sup>6</sup> It identifies some key stages of a person's journey—such as walking through a car park to a building, approaching the entry, traversing the route to and from the destination, and taking the journey back to the carpark—and examines how the principles are applied at each step. The focus on the journey that a person undertakes in the community is a significant difference between this tool and other options.

### Finally...

The environment has a key role to play in helping a person with dementia to live well and use his or her abilities. Applying key evidence-based design principles can significantly improve the quality of

an environment's design. This does not require an increase in budget; instead, it requires an increase in our awareness and application so that the focus is on designing for life, rather than designing for care. ●

- <sup>1</sup> R. Fleming, B. Goodenough, L. F. Low, L. Chenoweth, and H. Brodaty, "The Relationship between the Quality of the Built Environment and the Quality of Life of People with Dementia in Residential Care," *Dementia* (2014).
- <sup>2</sup> R. Fleming and N. Purandare, "Long-Term Care for People with Dementia: Environmental Design Guidelines," *International Psychogeriatrics* 22, no. 7 (2010): 1084–96. doi:10.1017/s1041610210000438.
- <sup>3</sup> These principles are an extension of work first published in 1987 (Fleming and Bowles 1987), continued in 2003 (Fleming, Forbes, and Bennett 2003) and refined in 2014 (Fleming and Bennett 2014). For a full description of the principles, please refer to the Dementia Training Australia or Enabling Environments website.
- <sup>4</sup> R. Fleming, "An Environmental Audit Tool Suitable for Use in Homelike Facilities for People with Dementia," *Australasian Journal on Ageing* 30, no. 3 (2011): 108–12. doi:10.1111/j.1741-6612.2010.00444; R. Fleming and K. Bennett, "Assessing the Quality of Environmental Design of Nursing Homes for People with Dementia: Development of a New Tool," *Australasian Journal on Ageing* 34, no. 3 (2015): 191–94. doi:10.1111/ajag.12233.
- <sup>5</sup> R. Fleming, "Trial iPhone App Helps to Extend Design Consultancy," *Australian Journal of Dementia Care* 1 (2012): 14–15.
- <sup>6</sup> R. Fleming, K. Bennett, T. Preece, and L. Phillipson, "The Development and Testing of the Dementia Friendly Communities Environment Assessment Tool (DFC EAT)," *International Psychogeriatrics* (2016): 1–9. doi:10.1017/S1041610216001678.



**Kirsty Bennett**

Kirsty Bennett is an architect who has pursued her commitment to creating enabling environments for people living with dementia through architectural practice, writing, research and speaking engagements. Kirsty has spent considerable time with people living with dementia and has undertaken a number of study tours in Australia and overseas. Ms. Bennett is the Manager of Environmental Design Education Services at Dementia Training Australia.



**Richard Fleming**

Professor Richard Fleming PhD is a psychologist who played a major role in the deinstitutionalization of psychiatric services for older people. He has published papers on environmental design, reminiscence therapy, reality orientation, depression, assessment of the elderly and service evaluation, and is the Executive Director of Dementia Training Australia.

# AGING AND THE CITY

Siôn Eryl Jones | URBANIZATION POLICY OFFICER, HELPAGE INTERNATIONAL



ILLUSTRATIONS BY JORGE PEÑALOZA/HELPAGE INTERNATIONAL

There are now more than 900 million older people worldwide, a figure projected to rise to 1.4 billion by 2030. Today, most people reside in urban areas, and individuals who are ages 60 and over are the fastest-growing cohort of urban populations; further, the total number of city dwellers is expected to double over the next 100 years to 9 billion. The next few decades offer a rare window of opportunity to ensure that urban areas are inclusive of older people.

Urbanization and population aging are particularly strong trends in low- and middle-income countries. In Latin America, 57 million older people live in urban areas, a figure greater than the populations of São Paulo, Mexico City, Buenos Aires, Bogotá, and Lima combined. In Asia, the figure is even higher, standing at 250 million. Even in Africa, the older urban population today, at 23 million, represents more people than the entire populations of Lagos, Cairo, and Johannesburg combined.

National governments, city mayors, and other stakeholders recently gathered in Quito, Ecuador, for the Habitat III Conference, which put forth the New Urban Agenda. It, alongside Goal 11 of the SDGs, calls for inclusive, safe, resilient, and sustainable cities. Over the past year, as part of our advocacy work around Habitat III, HelpAge spoke to older people in cities across the world—including Rio de Janeiro, Beirut, Mexico City, and Peshawar—to better understand their priorities. Our recently released report, *Ageing and the City*, explored a number of issues raised by urbanization and aging populations.

### Reclaiming Urban Spaces for All

Many city mayors and governments in low- and middle-income countries are pursuing the same car-oriented development strategies that were previously adopted by high-income countries and that now are proving problematic. Private car ownership is rising steeply, and road and street infrastructure prioritizes vehicles. Nearly 300,000 pedestrians and cyclists are killed each year in low- and middle-income countries, and over 7 million deaths a year are attributed to air pollution.

Car-heavy cities lead to hostile, unwelcoming, and unpleasant environments for everyone. Older women in Mexico City and Rio de Janeiro described how fast, oncoming traffic made them feel intimidated and anxious. They also spoke about how broken and narrow pavements made it difficult for them to walk to the pharmacy, buy food, or catch public transport. Older women in Peshawar told us that they did not enjoy going outside because of heavy traffic and pollution.

Although physical accessibility is an essential precondition, safe,

**The next few decades offer a rare window of opportunity to ensure that urban areas are inclusive of older people.**



welcoming, and pleasant urban spaces require that governments, planners, and other stakeholders go further. Cities should be dense, compact, cycle friendly, and mixed use in order to foster lively, healthy, and walkable communities that encourage physical activity and social interaction and that provide easy access to services and livelihood opportunities for older women and men.

### Urban Safety and Security in Older Age

Urbanization has also led to increasing levels of crime and violence, particularly in low- and middle-income countries. Surveys show that fear of crime and violence is the most significant day-to-day concern of urban residents of all ages, with women more likely to be victims.

High crime and personal insecurity create a sense of vulnerability in older age that can contribute to anxiety and isolation and that can discourage physical activity. Older people we spoke to in Mexico City and Rio de Janeiro were particularly concerned about the risk of theft and physical attack, particularly at night on poorly lit streets and public transportation.

World Bank research highlights the important relationship between the built environment and urban crime and violence. Poor street and building design provides opportunities for crime; insufficient services and infrastructure exacerbate inequality and exclusion, leading to an increase in crime. The specific priorities of older women and men must be recognized and addressed in initiatives to reduce and prevent urban crime and violence. These initiatives must acknowledge the

fear of crime among older people so that personal security becomes a cross-cutting issue addressed by decision makers who are involved in planning, service provision, and public transportation.

### Inclusive Cities for All

As urban populations grow and change, cities must change with them. It can no longer be acceptable for car-oriented development to create hostile and unwelcoming public spaces that inhibit social interaction, separate communities, and contribute to ill health. Reducing crime and fear of crime must also be prioritized to benefit city dwellers of all ages; for older people, failure to do so reduces their access to public spaces and heightens their risk of social isolation.

The compelling need for action has been recognized in the New Urban Agenda and Goal 11 of the SDGs, both of which demand responding to aging urban populations to ensure inclusive, safe, resilient, and sustainable cities. We are faced with an unprecedented opportunity to create urban environments and communities that protect and promote our rights throughout our lives, including into older age—and all stakeholders must act together before it is too late. ●

More information about urbanization and aging can be found by visiting <http://www.helpage.org/ageing-cities>, reading our latest report, *Ageing and the City*, or contacting Siôn Eryl Jones at [sjones@helpage.org](mailto:sjones@helpage.org).



**Siôn Eryl Jones**

Siôn Eryl Jones is the Urbanisation Policy Officer for HelpAge International and co-chair of the Older Persons group for Habitat III. Advocating for inclusive urban policies, he is currently living and working between Rio de Janeiro, Beirut, Delhi and London.

## Dutch Long-Term Care Facility Opens Its Doors to Grad Students

Retirement communities and long-term senior care facilities are often not thought of as the liveliest of places. Lamphooned in movies and on TV as desolate or dull at best and miserable and tragic at worst, these communities get a negative reputation. A company in the Netherlands is fighting that stereotype by injecting a new energy into one of its long-term care facilities.

Humanitas has a care facility located in the city of Deventer in the Netherlands. Deventer happens to be a college town that is afflicted by a trend that many cities and towns across Europe are feeling: Rent prices are increasing and cities are running out of beds to house students. Humanitas offers a unique option for graduate students in Deventer who can't afford or don't want to pay rent in the area, or can't find a nice place to stay. In exchange for volunteering, they can live in a long-term care facility rent free.

Started in 2012, this program has been allowing students to stay for as long as they'd like. The program has been hailed as hugely successful by students, seniors, and staff at the care facility. One student lived at Humanitas for four years, only moving out when he finished school. Peter Daniels, a staff member at Humanitas, said that "there is no limit" on how long students can stay; he then paused and corrected himself, saying, "The limit is you have to be a good neighbor." Being a good neighbor is not rigidly defined by the

staff at Humanitas, but they know it when they see it. Staff says that students are required to help with only one specific activity, serving a nightly meal once a week. Outside of that obligation, the way the students mingle with their neighbors is entirely up to them. They are required to volunteer at least 30 hours a month of their time and interact with the elderly they share a home with; however, Humanitas staff members believe that relationships that build naturally are more fruitful and meaningful than those born out of structured social time, so residents are largely left to their own devices. Many students share meals with their neighbors, and some watch movies or television together to meet their 30 hour requirement.

Sores Duman is one of the students living at Humanitas. He moved there in early 2016 and loves where he lives. "It's an ideal situation for a student, a win-win as we call it," he said. "I'm able to live rent free, and I'm able to contribute to the environment of Humanitas."

Duman was initially drawn to the program by a friend who had lived there years before and mentioned that he had a good experience. "I was already familiar with the concept, and I already knew what was going on around here," Duman said. When he saw an opening to live at the facility, he jumped at the opportunity, sending a letter to Humanitas expressing his interest. Duman was invited in

for the first in a series of interviews shortly thereafter. "I was invited for an interview with the students already living here, and they were positive about me and sent me forward to our CEO here," he said, outlining the process that surrounds becoming a student member of this community. "She had an interview with me and mixed me in with the elderly to see what would happen, to see if we could connect." Duman got along well with the older residents on that first visit, and was accepted into the community. "I'm visiting a woman, and she's a very nice woman," he said. "I'm getting to know about her interests and her family. But she's also been in World War II, so I'm learning history as well," Sores stated, when explaining the value of the relationships he has built over time.

Students are not the only ones who benefit from these programs. Duman and Daniels also confirmed that the home's 160 elderly residents love the prospect of younger company and see the active students as a gateway to the outside world. This arrangement—mutually beneficial to both the seniors and the student residents—offers an intriguing example for other care homes and retirement communities to examine and perhaps emulate. With the world's rapidly aging population, the social and emotional needs of seniors can sometimes be overlooked, but this setup addresses them in a way that can strengthen important multigenerational bonds.

*Andrew Lemos, Intern, AARP International*



- 1 Peter Daniels (left) a staff member at Humanitas with one of the student residents Sores Duman.
- 2 Humanitas resident Joke Kerdijk (left) and student resident Jordi Pronk share a laugh.



PHOTOS: HUMANITAS



BUSINESS  
OF AGING

# CONVENIENCE STORES AS AN AGING LIFELINE

Ryoto Takemoto | VICE SENIOR RESEARCHER  
SUMITOMO MITSUI TRUST RESEARCH INSTITUTE CO., LTD.



## **As the aging population, particularly of those without family, continues to grow, the “shopping handicapped” will emerge as a social issue.**

Population aging is salient in Japan. Elderly people (ages 65 or older) accounted for 26 percent of the country’s population as of 2015—the highest level in the world, followed by Italy at 22 percent and Greece, Germany, and Portugal at around 21 percent each, based on the United Nations’ World Population Prospects. Among the elderly in Japan, those who lived alone totaled about 5.9 million, according to the 2015 Population Census. The population of what is referred to as “aged solitary” is estimated to increase further, to 7.6 million by 2035, as reported by the National Institute of Population and Social Security Research, with 1 out of 5 elderly individuals living alone. As the aging population, particularly of those without family, continues to grow, the “shopping handicapped”—those who experience inconvenience in day-to-day shopping—will emerge as a social issue.

One of the reasons for the rise of the shopping handicapped has been the closing of many stores, including supermarkets and grocery stores, following the decline in the population of rural and suburban areas. Two reports released by the Ministry of Land,

Infrastructure, Transport, and Tourism in 2014 showed the threshold population that municipalities must possess in order for various retailers and private-sector facilities to exist in a particular location. According to these reports, there is at least one shopping center in over 80 percent of municipalities with a population of between 90,000 and 95,000. For department stores and/or general merchandise stores, the threshold range is 75,000 to 80,000, and 10,000 to 15,000 for a butcher and a green grocery. The continued population decline makes it difficult for elderly who live in small towns to do their daily shopping. In contrast, convenience stores (CVSs) exist in more than 80 percent of municipalities, even those with a population of less than 1,000. In that context, CVSs are now beginning to be seen as a retail format suitable for the super-aging society with a shrinking population.

### **Convenience Stores in Japan as a Potential Lifeline for Seniors**

CVSs came into existence in Japan around the 1970s. The country’s largest chain, 7-Eleven, opened its first store in Tokyo in 1974. Lawson

and FamilyMart, two other major chains, also set up their first stores in the mid-1970s. Over the past 40 years, the number of stores has continued to increase despite the country's population peak in 2008 and then decline. The Japan Franchise Association published that the total number of CVSs reached 57,052 as of March 2016. The catchment area of a CVS is relatively small compared with that of other kinds of retailers—with each store primarily serving only consumers who live or work nearby—so CVSs have a comparative advantage in depopulating markets, from a business point of view.

The nine major CVS chains serve around 1.4 billion customers each month. This means, assuming that foreign travelers included in that figure is not significant, each person in Japan visits a CVS, on average, more than 10 times a month. According to my analysis, 68 percent of all people nationwide live within walking distance, which is assumed to be 500 meters, of the nearest CVS. In Tokyo, this coverage is much higher, at 96 percent—that is, almost all the residents can find a CVS at no more than 500 meters away from their home. These stores have quite literally become close to our daily living.

Meanwhile, it is notable that over the past quarter-century, the majority of CVS customers have shifted from younger people to middle-age and elderly persons. In 1989, over 60 percent of all customers visiting 7-Eleven stores were in their 20s or younger. CVSs were often places for high school and college students to hang out, back in the era of Japan's

## **CVSs may outgrow their role as mere retailers and become “lifelines” where we could run all sorts of errands at a single site—an especially appealing option for the elderly.**

“bubble economy.” Today, after the so-called “lost decades,” more than half of convenience store customers are 40 or older, of whom about three-fifths are over age 50. Thus, in recent years, CVS companies have been trying to find a new market within this graying population.

CVSs are places where we can not only buy family groceries but also withdraw cash from ATMs and pay utility bills. In addition, it is now possible to obtain official certificates, such as resident records, using our Individual Number Card. Today, there is a growing number of CVSs oriented to elderly customers: stores with dispensing pharmacies and day-care facilities as well as stores that provide medical check-ups in their parking lots. CVSs may outgrow their role as mere retailers and become “lifelines” where we could run all sorts of errands at a single site—an especially appealing option for the elderly who suffer from mobility issues.

Another fact revealed by my analysis is that 76 percent of the elderly in Tokyo already live less than 300 meters away from the nearest CVS. Nearly 8 out of 10 elderly residents living in this megacity have ready access to a store within easy walking distance; however, nationwide that figure is lower, at 39 percent. I believe that the capacity to implement an “aging in place” approach depends on accessibility to the potential hubs in our communities that provide a wide range of urban functions.

### **Convenience Store Ecosystem Challenged by an Adverse Environmental Change**

National demographics seem to imply that persistent depopulation over a long period will make it hard for even CVSs to do business. Aside from the decreasing catchment population, in provincial areas typically experiencing an exodus of the younger generation to big cities like

Tokyo, the shrinking working-age population raises another problem: a tightening labor supply–demand balance is expected to put upward pressure on the wages of CVS staff, with most of them taking flexible-wage part-time jobs. The ongoing steps to raise the legal minimum hourly wage will also have an almost immediate impact on the labor costs to run a CVS. Based on a broadly adopted method for calculating CVS royalty fees (i.e., the franchisee’s payment to its franchisor), the increase in labor costs would directly push down the franchisee’s income.

In the post–bubble economy period with a lax labor market, it had been relatively easy for CVS owners to hire low-wage part-time workers; however, due to retirements in the baby-boom generation and the extremely low fertility rate, among other factors, the environment has changed dramatically. The unemployment rate has declined to just 3 percent, the lowest level in 20 years, which means that the tight labor market will most likely continue. The labor force in Japan will inevitably enter a decreasing phase at some point in the future. Both the shortage

of workforce and the surge in labor costs need to be viewed as emerging threats that will make it difficult to sustain the CVS environment.

To cope with these adverse circumstances, residential areas need to become more compact. In a densely populated compact community, the number of consumers living in a catchment of a CVS could well remain above the break-even point, making it economically viable even in a small town with a small population. A sustainable super-aging society can be attained by encouraging the creation of compact cities and utilizing CVS networks. ●



**Ryoto Takemoto**

Ryota Takemoto, Vice Senior Researcher, Sumitomo Mitsui Trust Research Institute Co., Ltd. has a master’s degree in information science and technology from the University of Tokyo, Japan. He has conducted research on the real estate market and demographics in Japan. Previously, he worked at Nomura Securities Co., Ltd. as a quantitative analyst and an economist.

# HOME SWEET COMMUNITY HOME

Cameron Sinclair | HEAD OF SOCIAL INNOVATION, AIRBNB





- 1 (opposite page)  
The Yoshino Cedar House is made from the cedar trees surrounding Yoshino.
- 2 Fish are caught along the river and brought into the home.
- 3 Every detail of the structure, from the locally-milled wood to the communal dining table, inspires connection to the people of Yoshino and their underlying traditions.
- 4 The design of the house drew on the heritage and expertise of the local people who shaped it.

For five days of the year, thousands of blossoming cherry trees erupt in a chorus of vibrant colors across the rural mountain town of Yoshino. For this brief moment, throngs of visitors descend on this tiny enclave as it is engulfed by stunning vistas. Experiencing what makes Yoshino truly special is to visit the town during the other 360 days. A new community structure, the Yoshino Cedar House, offers visitors a glimpse into this amazing community.

Nestled along the banks of the Yoshino river is the world's first home-sharing community house, a unique property that invites travelers to become part of the community the moment you open the door. The Yoshino Cedar House, designed by award-winning Japanese architect Go Hasegawa, was born out of the rural revitalization program at Samara, Airbnb's newly created advanced innovation and design studio. This two-story home was designed along the banks of the Yoshino River, where lumber has been collected for over 400 years, overlooking a local fishing spot and with endless views of the surrounding forests.

The home features an expansive ground floor that doubles as community gathering space and open living area. Its centerpiece is a

communal dining table that serves as a gathering spot for a variety of local groups, from young mothers after dropping their children off at the nearby school to local fishermen after a long day on the river. To facilitate interaction between hosts and guests, the house is designed based on the Japanese concept of *engawa*, with a ledge extending beyond the house's border to connect it to the outside world and welcome visitors in.

Starting in January 2017 travelers go beyond living like a local by building a direct relationship with the community. Unlike classic home sharing — where an individual host rents to guests — the Cedar House is owned by the village, managed by a host cooperative and the entire community plays host. While the physical structure celebrates the cultural heritage of the village, it is the town's senior population that might be the greatest asset to this precedent in community-driven hospitality.

### Aging Populations and Rural Abandonment

Japan has one of the oldest populations in the world, with over a quarter of Japanese citizens aged 65 and above. This number is expected

5 The Yoshino Cedar House aims to prove that the house is more than a physical space. It speaks a simple truth that we all understand: human beings seek community.



to rise to 30 percent by 2025 and 40 percent by 2060.<sup>1</sup> The concentration of senior citizens is often greatest in rural villages, which younger generations have left for the cities. When coupled with shrinking family sizes the country will decline in population by 800,000 people every year, for the next 20 years.

Yoshino is a classic case: its population dropped from 16,000 in the 1970s to just over 7,600 today, with a decline of 13.8 percent between 2002 and 2007 alone. Depopulation hits villages hard. Local businesses shutter their doors, unable to sustain themselves with smaller customer bases. Culturally, this depopulation threatens a loss of the rich traditions that characterize Japan's countryside.

Senior populations in rural villages are often the most impacted by the economic slowdown and decreased investment in community infrastructure. Across Japan, Airbnb

has seen senior hosts embrace home sharing as a way to enrich their lives with social interaction and additional income. By investing in this untapped cultural resource in Yoshino, the Cedar House is developing a holistic approach to enabling seniors as the key to economic resilience in rural communities.

### Senior Home Sharing as a Catalyst for Economic Growth in Japan

The number of senior Airbnb hosts grew 235 percent in the last year, surpassing the growth rates of other generations. They are a particularly large percentage of hosts in provincial cities, including in towns such as the UNESCO World Heritage Site of Tanabe City and stops along the pilgrimage routes of the Kii Mountain Range. Guests love senior hosts—70 percent obtained the highest five-star evaluation, exceeding all other age brackets.

Senior hosts in Japan report that home sharing provides them with an important source of income; an effective use of a vacant room; and communication and interaction with people after retirement. Seventy percent offer private rooms within their houses. Thirty percent report that they use home sharing as a source of income. Home sharing supports the government's Plan for the Dynamic Engagement of All Citizens, which hopes to encourage women and senior people to engage in economic activities.

Associates President Hiroyuki Murata, who is familiar with baby boomers, the elderly market, and aging society, explained the significance of elderly hosts in the Japanese society: "Three anxieties that the elderly have are anxieties about health, finance, and loneliness. By becoming a host, they can get rid of these three worries and enrich their life. With idle assets, they can get



additional income besides pension payments and have extra money. Interacting with tourists from overseas eliminates their loneliness and improves health. In addition, the elderly people who have more time can provide Japanese hospitality to tourists from overseas and communicate the Japanese culture and virtue.”

### **Community-Driven Development As Catalyst for Economic Regeneration**

The Cedar House places Yoshino’s community and culture at the heart of rural revitalization. The house grew out of a response to the rapid decline in population, which led to economic uncertainty for local industry and poses a threat to the region’s cultural heritage. The architect created a building that responds to its place by designing a unique structure created entirely from cedar wood felled from the surrounding forests and built by the town’s master builders and carpenters - most of whom are 6th generation woodworkers. The architect and Samara team worked in close collaboration with the community to ensure that every step of the process incorporated the skills and talents of the town - not only in its creation but by developing unique business model.

The town of Yoshino donated land for the Cedar House, and the community developed their own host collective - made up of hosts, business leaders and young entrepreneurs. Proceeds of each booking are dedicated to a Community Investment Fund, overseen by

the collective, for villagers to use beyond the home. When travelers stay at the home, 97 percent of revenue generated directly benefits the community and its’ people.

Guests can stimulate the local economy beyond the home by taking advantage of many local experiences such as learning how to make sushi from river fish, nature therapy (yes, yoga with trees) and hiking with the guardian of the forest to tasting tours of a small-batch sake factory. This secondary spending has a big impact on this small community while providing deeply authentic travel to all visitors.

Eiko, Airbnb’s oldest host in Japan, sums up the value of the sharing economy: “For me, Airbnb guests are not really guests but they are more like old friends who come to see me. After they leave, I feel the joy and happiness of becoming friends with more people... Regardless of nationality and age, I join fun conversations and make friends with everybody.”

While the world focuses primarily on urbanization and density, we will continue to look at ways to enrich and support rural communities around the world. We invite you to visit Yoshino, experience one of Japan’s most resilient towns and make new friends. ●

For more information about the Yoshino Cedar House, visit: [www.yoshinocedarhouse.com](http://www.yoshinocedarhouse.com)

<sup>1</sup> *Population Estimates June 2016*, Statistics Bureau, Ministry of Internal Affairs and Communications



**Cameron Sinclair**

Cameron Sinclair is the head of social innovation at Airbnb and leads community development at Samara, Airbnb’s Innovation and Design Lab. Previously he served as director of the Jolie-Pitt foundation and co-founded Architecture for Humanity. Over the past two decades Sinclair has been a part of teams building shelter solutions for communities in 49 countries and has raised over \$60M for humanitarian activities. After the 2011 Tohoku earthquake and tsunami, Sinclair spearheaded long-term reconstruction efforts to revitalize rural communities affected by the tragedy.

Sinclair compiled a number of best selling books, has taught community design to a number of US universities and holds an honorary doctorate of Architecture. Sinclair was a Senior Fellow of the Design Futures Council, an advisor at USAID and a Young Global Leader of the World Economic Forum. As recipient of many awards, Sinclair won the TED prize, the National Design Award and was a runner-up for UK Designer of the Year.

# A DRIVING FORCE FOR CHANGE

Raffi Krikorian | DIRECTOR, UBER'S ADVANCED TECHNOLOGIES CENTER

Uber's mission is to provide transportation that's as reliable as running water everywhere, for everyone. We set out in 2010 to solve a simple problem: how do you get a ride at the touch of a button? At the time, the idea was unthinkable. Nearly seven years and over 2 billion trips later, it's a reality in more than 425 cities in 72 countries around the world.

How did this unthinkable idea take off so quickly? In large part, because the rise of private car ownership has come at a great public cost. Cars are responsible for one-fifth of the carbon emissions that are leaving a negative impact on our environment. Today, the average American spends almost two of their eight hours at work paying off their car.

At Uber, we strongly believe that cars aren't the problem—it's how we're using them. Today, cars sit idle 96 percent of the time. Seventy-six percent of Americans commute to work alone—a pattern that's repeated around the world. We've seen that cars can be a powerful tool to cut congestion and pollution if we use them more efficiently. We just have to shift our thinking.

When it comes to cars, our mindset is already changing. In fact, that's how uberPOOL

was born. As we became more popular, our engineers noticed lots of duplicate rides—people going to the same place at the exact same time. That's when they realized that if we could match people up, we could make Uber more affordable while reducing congestion.

In most parts of the world, ridesharing has already made it easier for people to get around without getting behind the wheel. uberPOOL now accounts for 20 percent of trips in the 32 cities where the service is currently offered. In San Francisco, 40 to 50 percent of riders choose to carpool each week.

Ridesharing is about using private cars for public good. By getting more people into fewer cars, we can help reduce congestion and pollution over time. In Los Angeles, uberPOOL reduced the number of miles driven by 7.9 million and the amount of carbon dioxide emitted by 1,400 cubic tons in its first seven months.

Uber's technology also provides flexible work opportunities for people from all walks of life. The driver community includes college students, stay-at-home parents, people with full-time jobs, veterans, and recent immigrants. Older Americans are also driving with Uber in increasing numbers as a way to



- 1 Top mounted lidar units provide a 360° 3-dimensional scan of the environment.
- 2 In the fall of 2016, Uber began offering self-driving pickups to select users in Pittsburgh, Pennsylvania neighborhoods.
- 3 Uber logs each of its road tests and uses the data to tweak how the cars should respond in specific situations.
- 4 Two riders can fit in a self-driving Uber.

supplement a fixed income, meet new people, and serve their community. According to a recent Uber survey, more than 20 percent of drivers are over 50 years old.

People traditionally excluded from meaningful work have also found new opportunities to earn money on their own terms by partnering with Uber. In the United States, thousands of deaf and hard-of-hearing driver partners on the Uber platform have collectively earned more than \$10 million—all by helping people get around town. That's a pretty big deal, especially when you consider that over 70 percent of deaf and hard-of-hearing communities' individuals are unemployed or underemployed.

Uber also increases mobility for everyone, particularly for people living in underserved areas. Take Manhattan, where 35 percent of all Uber pickups happen outside of the borough, compared with just 6 percent by traditional yellow taxis. Ridesharing services also help extend the reach of public transportation by picking passengers up where trains or buses drop them off, all at no extra cost to the taxpayer. In outer London, nearly 30 percent of Uber rides end within 200 meters of a tube or train station during the morning rush hour.

The opportunity to use cars as a force for positive change increases

as self-driving cars become a reality. A year and a half ago, Uber set up an Advanced Technologies Center in Pittsburgh with the mission to make self-driving Ubers a reality. In September, we announced that the world's first self-driving Ubers are now on the road in the Steel City.

This pilot is a big step forward. Real-world testing is critical to the success of this technology. Creating a viable alternative to individual car ownership is important to the future of cities. We can already imagine how this technology could further extend the mobility benefits people currently enjoy thanks to ridesharing.

Self-driving technology holds tremendous potential to improve road safety. Today, 1.3 million people around the world die in car accidents every year. Ninety-four percent of those accidents involve human error. This is a tragedy technology can help solve.

A better future is within reach. We have the technology. While it won't happen overnight, self-driving will be an important part of the future of transportation—a future that we intend to lead. ●



**Raffi Krikorian**

Raffi Krikorian is the Engineering Director of Autonomy Software for Uber's Advanced Technologies Group and is focused on building massive scale software platforms to change computing, transportation, and the world with self-driving Ubers. Until August 2014, he was Twitter's VP of Engineering in charge of the Platform, the core infrastructure of Twitter. He managed 400 people who worked on, amongst other things, the business logic, the scalable services, APIs, storage, core libraries, and the internal development model of all of Twitter.

# VIRTUAL REALITY CONNECTS SENIORS

Dennis Lally | CO-FOUNDER AND CEO, RENDEVER

**Rendever is using new technology to allow older adults to travel around the globe, attend concerts, explore museums, and visit family—in other words, to help them fulfill their higher-level needs.**

“The food is outstanding—and it’s even better that we don’t need to do the dishes—but I’ll be moving back home soon.”

“Home” for Marianne was the house in Eastham, Massachusetts, that her husband had built and where the two of them raised their two children. Marianne’s husband passed away about three years ago, around the same time her doctors diagnosed her with dementia. Soon afterward, her children sold her home and helped

her move into an assisted living community, but part of her always believed that she would move back into that house—it was her place of solace, the place she’d spent “the most meaningful years of [her] life.” With the aid of virtual reality and without the two-hour drive, Marianne was able to visit home. Barely holding back tears, she exclaimed, “93 Lupin Way! 93 Lupin Way! Who did this?”

You’ve probably heard about virtual reality and how it’s quickly becoming the digital medium of the future. My company, Rendever, is using this new technology to allow older adults to travel around the globe, attend concerts, explore museums, and visit family—in other words, to help them fulfill their higher-level needs, as described by psychologist Abraham Maslow. In 1943, Maslow published “A Theory of Human Motivation,” in which he describes a hierarchy of human needs, illustrated by a pyramid. He argued that physiological needs and safety make up the foundation of life, while love and belonging, esteem, and self-actualization characterize our higher-level needs. As we age, our physiological needs, for the most part, remain the same—we all need water, food, and shelter—however, the ways in which we receive them may differ; some of us need help walking, while others may need help eating or completing other daily activities. As we move up the pyramid, though, we see a decline in the ability to fulfill these higher-level needs.

Why, as we age, should our pyramids be reduced to the bare minimum? Rendever’s team of MIT engineers, researchers, designers, and business minds set out to

## VIRTUAL REALITY CONNECTS SENIORS



1 Norma Ficcardi, resident of a health care center in Connecticut, is pictured grinning from ear to ear as she views sights of Rome.

tackle this challenge. Applying a human-centered design approach—the basis of which requires an empathetic understanding of our end users—we envisioned a world where, despite physical or cognitive limitations, people could experience life to the fullest; we envisioned a world where the sense of wonder that normally fades with age could be once again be a part of daily life. To accomplish this goal, we designed a solution that would leverage the cutting-edge technology of virtual reality for a demographic that’s historically viewed as technologically inept. Einstein said, “We can’t solve problems by using the same kind of thinking we used when we created them.” Using virtual reality as a medium to reconnect the older population with the world will fundamentally disrupt the existing aging paradigm.

Traditionally, care has been provided and technology built for the aging population rather than with them. Instead, we’re adopting a design process that is centered on the values of our end users. It’s critical to understand their thoughts, experiences, and emotions, because the problems we are trying to solve are rarely our own. For us, this meant living alongside residents at Brookdale Senior Living and spending thousands of hours observing and speaking with our end users across the country. In this way, we were able to witness, appreciate, and understand their individual characteristics and motivations.

Take, for instance, a situation in which an 88-year-old female fell while getting into her shower. Rather than pushing her fall monitor, she struggled for over an hour before her daughter arrived to find her on the floor. Why didn’t she push the monitor? Maybe she tried? Maybe she forgot she had it? We’ve been asking questions like this a lot. It turns out the most likely reason was simply that she didn’t want her daughter to know she fell, as that would be an admission that her independence was waning. Discovering the emotions that guide these sorts of behaviors allows us to design products for our users’ needs rather than for our perception of their needs.

Nearly every community has enrichment programs that offer residents opportunities to listen to guest lecturers or to partake in field trips. Unfortunately, the lecturers are often limited to local community members and the field trips, for those who can attend them, remain within a small radius of the communities, due to resident fatigue and necessary bathroom breaks. Virtual reality allows all residents to connect with the vast world beyond these limiting boundaries.

As we developed our product, it was important to us that we provide users with a sense of choice. Studies have shown that those older adults who have a perceived control of their lives—derived from an ability to make their own decisions—have better overall health than those

who lack this perceived control. One community we visited had a grand stairwell that collected more dust than actual footsteps. Although all the residents use the elevator, the stairs remain in this case simply to provide residents with that sense of choice, a sentiment we deliver by providing a range of experiences for residents to explore. For example, we built a platform that allows people to travel nearly anywhere, from the top of Mount Everest to their childhood homes, and includes a rapidly expanding library of unique experiences: users can sit front row at a Broadway show, explore the 9/11 Memorial, or even jump out of a plane at 15,000 feet above sea level.

Even though senior living communities offer inherently social environments, we found that many residents, in fact, feel isolated. So, we took a technology that can seem isolating and made it social. With our software, a group of WWII veterans from across the country can join together and visit the national memorial built in their honor. We spent time with a group of residents who virtually visited each of their high schools together. These group experiences create new bonds and spark new conversations that echo through the halls of the communities. We were setting up the equipment when a resident whom we hadn't met, Joan Watkins, walked in and said, "I heard you took Betty and Dorothy to Notre Dame Cathedral, and they didn't even need to pack their bags. Can you take me back to Italy?" We'd created a solution that provided people that sense of wonder of the world—something they were eager to share with their friends.

We're challenging ourselves to create an innovative solution to the aging paradigm that exists today: a world focused on fulfilling our basic needs that often neglects the more important facets of life. Along the way, we've met thousands of amazing older adults, we've lost hundreds of bingo games, and we've created a solution that will affect the lives of millions. Rendeever helps immerse older adults into the places they call home, and allows them to be with the people who know them best and enjoy the experiences that they've always found fulfilling—things that, until now, they had hopelessly lost. We're helping individuals fulfill these higher-level needs, and we've only just begun. ●



### **Dennis Lally**

Dennis Lally is a Co-founder and CEO of Rendeever, a virtual reality platform built to improve the aging process for older adults. Prior to Rendeever, Dennis spent his career as a healthcare investment banker working with healthcare IT, services and medical device companies. He's been featured on CBS, Fast Company in the Boston Globe and Fortune. Dennis graduated with a BA from Dartmouth College and is currently earning his MBA at MIT Sloan.

<sup>1</sup> Maslow, A.H. (1943). "A Theory of Human Motivation". In *Psychological Review*, 50 (4), 430-437

## PURE Living and the Plantable Pens

In terms of their significance, ink pens have almost become a thing of the past. We used to cherish those special ink pens that would be owned for lifetimes; now, we've settled for disposable plastic pens that seem to get lost by the dozen. The problem with this model is that those little pieces of plastic, metal, and ink are nonbiodegradable messes. To combat this issue, 42-year-old Lakshmi Menon runs PURE Living (Products Up-cycled Recycled and Economized), a Kerala-based social enterprise that makes disposable pens from paper; when disposed, these pens grow into trees.

Menon comes from a small town in the Ernakulam district of Kerala, India. She completed a degree in home science, traveled to the United States to explore, and ended up designing jewelry for models at New York Fashion Week. She recalls teaching crafts to orphaned children on her visits to Kerala. During one visit, she taught them to roll paper into pens and sold them at an art gallery in San Francisco. It was during this workshop with the kids that she had the idea of embedding seeds into the paper pens to make them a "perfect eco-friendly solution to the menace of disposable plastic pens." It was then that she decided to start PURE Living.

Menon's philosophy aligns with the name of her brand: "PURE stands for our eco-friendly approach, while Living is all about being responsible toward enhancing the quality of life of women through employment and training." Begun in 2012, Menon's enterprise employs older adults and differently abled women who work together under a single roof to make these pens.

"It started as an activity to keep my then 88-year-old grandmother occupied. She regularly makes wicks for our lamps in the prayer room. I suggested that she make a few extra ones to distribute among her other children

and relatives. The excitement she had in gifting the wicks made me realize how much she yearns to prove that she is still worthy of doing something for others. I also started supplying these wicks to temples. It gave her immense joy to know that the wicks were being used in faraway temples she is unable to visit," Menon recalls. Part of the enterprise's "Wicksdom" project creates lamp wicks that have been rolled by impoverished senior citizens who were abandoned at poor old age homes. Her now 92-year-old grandmother assists in the production process that not only provides livelihoods to many women and senior citizens, but also restores in them a sense of accomplishment and dignity.

Because all PURE products are handmade, they generally cost more than the market alternative: "We can't compete with them over price, but those who understand the value we add prefer our products." The handmade paper pens – "rolapens" – are completely degradable except for the refill. At the bottom of each pen, there is a seed of a tree.

More recently, Menon has started focusing on marketing the product better and raising awareness; consequently, demand for her miraculous paper pens has been on the rise. ●

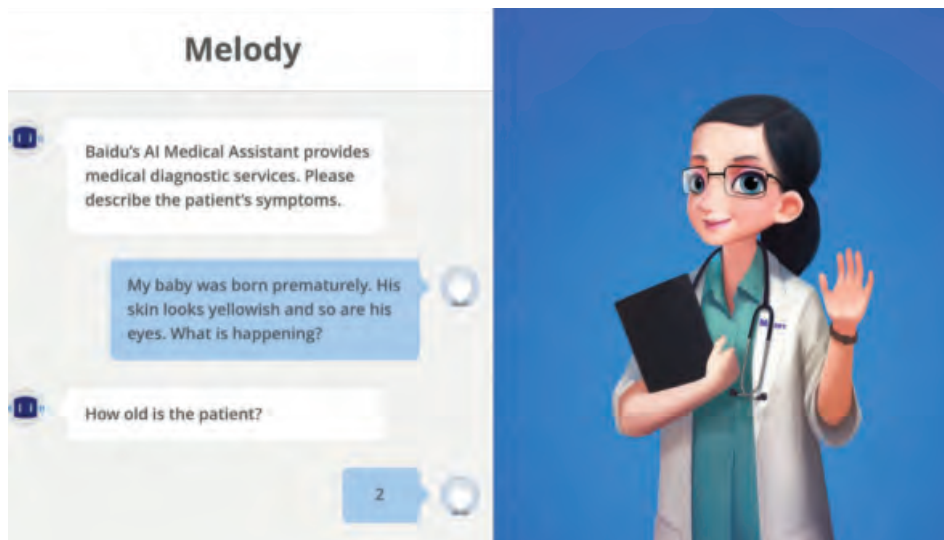
For more information, visit: <http://www.thepureliving.in>

*Johnny Pepen, Intern, AARP International*





- 1 Lakshmi combined her design skills with love for the environment and crafted pens made from waste paper. At the bottom of each pen, she has buried a seed of a tree.
- 2 Once the ink runs dry, it can be just be planted into the soil. The seed will sprout from the bottom of the pen.
- 3 "The pen just became mightier"  
- Lakshmi Menon, Founder, Pure Living



1 An English translation—for now Melody the chatbot only communicates in and understands Chinese and is only available to patients and doctors in China.

## CHINA

# MELODY: THE APP THAT'S A DOCTORS' CONSULTANT

Company: Baidu  
<http://research.baidu.com>

The World Health Organization estimates that there will be a shortage of nearly 13 million doctors over the course of the next two decades as our population ages and medical services become more and more necessary. Chinese research company Baidu has a solution for this problem, and it's called Melody. Melody is a robotic health care helper with a complex form of built-in artificial intelligence that is meant to serve as an aid for doctors when making diagnoses and a first reference for patients who are feeling ill.

Creating a robot that helps with something as important and complicated as health care is no easy task. To build Melody's digital brain, doctors pulled extensive amounts of information from both public and private medical archives and textbooks. They also pulled question-and-answer sections from medical websites to help Melody understand what questions patients might be asking and formulate appropriate ways to respond. Outside of medical knowledge, Melody is also designed to understand natural language and speech patterns. The difference between "my son has the flu" and "my son is feeling under the weather" may seem miniscule to us, but it is difficult for artificial intelligence to understand. Baidu's computers store massive amounts of text and applied them to Melody's artificial intelligence to help the robot understand nuances of language.

Although Melody is an impressive and complicated robot—and will learn from its experiences and sharpening its diagnosis skills over time—it is not ready to diagnose or care for patients on its own. For now, Melody is meant to work more as an aid for doctors; it can help them keep their heads above water in a world that will be facing fewer and fewer health care professionals and more and more patients. ●

UNITED STATES

# THE DOG THAT DOESN'T NEED WALKING: TOYS SERVE AS COMPANIONS

Company: Hasbro  
<http://joyforall.hasbro.com/en-us>

Dogs are often referred to as man's best friend, and for good reason. Pets can feel like members of the family and provide important companionship for people of all ages. Despite the obvious benefits of owning a pet, pet ownership can be difficult for some, especially senior citizens. Feeding schedules, walks, and trips to the vet can require a lot of energy and be a hassle that not all seniors in the United States can handle. Additionally, paying for pet food, grooming, and other services can be a costly endeavor that not all seniors can afford. Well known toy company Hasbro sees a solution to the problem of seniors who want the companionship that comes with having a pet but are unable to care for one: a line of lifelike robotic pets.

Through their "Joy for All Ages" line, Hasbro is attempting to reach a consumer base that it doesn't often market to: senior citizens. Recognizing the desire for companionship, Hasbro entered the arena of advanced companion robots in 2015 with several models of lifelike companion cats. The cats have been hugely successful and have spurred the release of a robotic golden retriever puppy in the fall of 2016. Retailing between \$99 and \$119, these robotic pets have realistic fur coats, purr and bark in response to petting patterns, and even have gentle heartbeats that can be felt in their chests. In a world with a rapidly aging population, it's clear more and more companies will offer senior citizens affordable and low-maintenance pet replacements in the form of companion robots. ●



- 1 The robotic golden retriever has realistic fur, BarkBack technology and built-in sensors that recognize human touch.
- 2 When the pup's 'owner' speaks, it looks toward them and reacts with realistic puppy sounds.

PHOTOS: ©HASBRO



THAILAND

# DINSOW: THE ELDER CARE ROBOT THAT COULD

Company: CT Asia Robotics  
<http://www.ctasiarobotics.com>

Care and companionship are not the first two things that most of us think of when we think of robots. However, Thai manufacturer CT Asia Robotics is changing that mindset and making a hefty profit doing so. The company’s elder care robot Dinsow is designed to assist older adults in multiple areas of their lives. Dinsow can keep track of an older person’s pills and help with health care related issues but it has other practical uses as well. Dinsow can set up video chatting with family for people who may have a hard time doing it themselves. It also has a karaoke feature meant to amuse and entertain its owners.

A companion for seniors, this sophisticated device doesn’t come cheap. Dinsow sells for almost \$2500(USD) but this high price point hasn’t hurt sales. By the end of 2016 fifteen percent of Thailand’s population will be



- 1 The Dinsow robot monitors body movements and vital signs with sensors that serve as portals for telemedicine with doctors.
- 2 Launched in 2015, the latest Dinsow model, Dinsow Mini, is small so that it can be placed by the side of bedridden patients.

over the retirement age of 60. By 2020 that number will jump to 20 percent. CT Robots reports that wealthy consumers are comfortable spending top dollar on a robotic companion like Dinsow if they think they’re helping increase their older relative’s quality of life. ●

JAPAN

# EMIEW AND ROPITS: HELPING SENIORS LIVE INDEPENDENTLY

Company: Hitachi

<http://www.hitachi.com/rd/portal/highlight/robotics>

While most seniors prefer to age in place, living alone can come with its own set of challenges. Isolation can be dangerous in dire situations such as falls or medical emergencies. It can also be a concern for seniors living their day to day lives in loneliness or with limited mobility. Japanese company Hitachi, which builds everything from nuclear reactors to brain scanners, is now developing products to help older Japanese who wish to live independently.

EMIEW3 is an autonomous companion robot designed by the company. EMIEW3 looks a bit like Hello Kitty and is capable of greeting and interacting with people and picking itself up when it falls over. Although the robot could have many uses, companionship and assistance to older adults is an obvious option.

Another ground breaking piece of technology Hitachi has developed with seniors in mind is known as Ropits—a narrow slow moving pod with a flip top door. Ropits is meant to make leaving the home easier for seniors. The idea behind the self-driving vehicle is that if an older person was outside their home and grew tired, they could call the pod to come get them. Meant to drive on sidewalks and not in streets, the vehicle has large open windows making it conducive to chatting with a friend who walks alongside it. The inventor of Ropits believes that it has the potential to change the game for seniors and allow them to remain active outside of their home for longer than they'd normally be able to.

While neither of these products is quite ready for market, they both point to an exciting future where autonomous robotic technology is utilized to help an aging population. ●



1 EMIEW3, the humanoid helper robot, is expected to hit the market in 2018.

2 The Robot for Personal Intelligent Transport System—or Ropits for short—is a self-driving sidewalk vehicle with a maximum speed of 3.7 mph.



UNITED KINGDOM

# MiRo: A BIOMIMETIC COMPANION ROBOT

Company: Consequential Robotics  
<http://consequentialrobotics.com/miro>

Consequential Robotics, a UK-based company, has developed a robotic alternative to live-in care and it comes in the form of a lovable pup. MiRo, the biomimetic robot, is designed to use facial recognition technology and will prompt its owner to take medicine, remind him or her of scheduled activities, or to question them if it thinks he or she is in distress.

Robo-dog designer Sebastian Conran explains that with some help from its owner, MiRo is able to evolve from

<sup>1</sup> Development of MiRo's brain-like control system is continuing at the University of Sheffield. Follow MiRo on twitter at: @cqrMiRo

a “reactive mammal to a cognitive being.” The robot will notice a break in routine and can alert others to an emergency by working as part of a system which includes a central hub that the robot can send a signal to and a wristband which the person can slap to confirm they are ok.

MiRo, designed in conjunction with Sheffield University, has one over-arching purpose—to provide companionship and help alleviate loneliness and fear in those otherwise living alone. ●



PHOTOS: BUSINESSDEN

- 1 Mohammad Mahoor, left, DreamFace president and founder; and Josh Lane, principal engineer. Ryan the robot in the middle.
- 2 Ryan responds to human expressions and speech with an animated face as well as a voice.

## UNITED STATES

# RYAN: READING AND RESPONDING TO FACIAL EXPRESSIONS

Company: DreamFace Technologies  
<http://dreamfacetech.com>

Four years ago, Denver University professor Mohammad Mahoor began to develop a robot intended to serve as a companion for seniors and for children with autism. Grant funding has fueled his projects' growth and today Dr. Mahoor leads a team of six at his startup DreamFace—where they continue to develop and fine-tune Ryan—a socially assistive robot.

Ryan's artificial intelligence can read human facial expressions and respond with facial expressions of its own. Ryan's earliest prototype was a robotic bear that was meant to teach children with autism what different facial expressions mean and how to react to them. The newest version has replaced the bear's fixed robotic face with an animation projected onto a face shaped mold. The latest model of Ryan includes a torso with an attached touch screen tablet. This new version of Ryan was also deemed ready to hit the road and interact with the people providing 24/7 companionship to residents of a local retirement community. Ryan can hear and understand human speech, react to facial expressions and respond with a voice of its own. Residents can play games on the touch screen in Ryan's chest and it offers helpful reminders when it's time to take medication.

Ryan's early success has DreamFace Tech hopeful. They plan to continue to raise funds and expand their research. Once production is ramped up, Ryan's creator expects the robot to sell for roughly \$9,000 (USD) a unit. ●

# THEN & NOW

Elsbeth De Montes | LEGO BUILDER & BLOGGER

Through the unique medium of LEGOs and a brilliant sense of humor, one woman explores the contrasting life of a minifigure named Doris in 1966 and in her current day life.



1966



2016

I like to tell stories. I'm not a poet, painter, or musician, as my stories are told using the medium of LEGO. You know, the little plastic toy bricks and figures that are increasingly popular? Well, those are the tools of my trade. I wanted to share a series of LEGO vignettes that I built for a LEGO magazine. The series is called Then & Now and each pair of vignettes tells a story that I imagine many will relate to.

Without further ado, I would like to introduce Doris.

On the left above, it is 1966 and Doris is a young, vibrant lady in touch with the latest fashion, technology, and trends.

On the right, it is 2016 and Doris has to cope with new technology, innovation, and changes in society.

## The Concept

The initial concept behind Then & Now was very simple: one character experiencing similar, everyday situations but in two different stages of life. Why 1966 and 2016? Well, LEGO produced Doris's 1966 beehive hairdo for a minifigure character from The LEGO Movie. I love this hairpiece, but clearly it was going to set my "Then" scene within the 1960s. I thought that having the same character in her 20s and then in her 70s would be intriguing to explore. It seemed natural to use a female figure as my central character as I am also female and it often seems that females have more roles in life, perhaps as a daughter, girlfriend, worker, wife, mother, part-time working mother, retiree, grandmother, and widow.



## Blind Date Woes



**1966**

Doris felt that this new culture of blind dating was a high-risk gamble...it seemed that Frank was far more enthusiastic than his invitation to "meet up for a coffee" suggested...



**2016**

Doris had finally relented and agreed to a blind date with Arthur after he promised to take her to a swanky restaurant and show her his new wheels... these were not exactly the 'wheels' she envisaged.

## Taking out the Trash



**1966**

Doris remembered those special days when she could take her bag of trash outside and put it in her trash can for collection.



**2016**

Doris felt that the 'Refuse Analysts & Recycling Operatives' had set up a new color coordinated recycling intelligence test...and she was failing it.

Latest Exercise Fad



**1966**

Doris still felt somewhat shaky when reminiscing about the Vita-Master Vibratory Belt Massager...it was certainly vigorous!



**2016**

A balance board, a Nunchuk and an obstacle course involving huge swinging canon balls... nowadays achieving fitness seemed fraught with danger.

**Taking Out the Trash**

The very first Then & Now build was entitled “Taking out the Trash.” I realize that I used an American term, which might seem wrong for a Brit, but LEGO calls the part a “trash can” and it felt right to continue with the LEGO naming convention. The week before, I had spoken to my mum on the phone. “We’ve yet another colored rubbish bin for recycling, that makes four now ... how many do you have?” she asked in a strangely competitive manner, and I imagined that she had told a few people this story now and won the “most bins competition” each time. I envisaged her with a row of different-colored bins, considering where each empty tin, wrapper, or package should go. In fact, she has only four bins, but this was an ideal opportunity to show off my

impressive collection of different-colored LEGO trash cans.

**Ideas & Inspiration**

The ideas for the scenes came from all sorts of sources: my own parents (who are in their mid-70s), family members or friends, observations, or perhaps just a passing comment I overheard. A friend visited from Spain and told me about his mum ordering three vacuum cleaners from Amazon by accident. He told the story well and we were all laughing, especially since we know his mother well and she is a very organized, intelligent lady, just not used to ordering online. The next month, the 2016 scene for “Dangers of Shopping” was built when Doris accidentally orders five vacuum cleaners. In the 1966 comparison scene, a hardware store owner

called Frank advises Doris to return with her husband when she asks about fixing taps. I know some felt Frank was being a male chauvinist, but actually this wasn’t really my intention. Frank was playing his role in society at that time. Maybe he was being paternal; perhaps he just felt that Doris should have a husband to help with some of the DIY jobs, but his intentions were good.

**Doris Then & Now**

It was important to me to keep Doris vibrant and engaged with life. I didn’t want her to become a grumpy old lady who reminisced about the past and refused to use “new-fangled gadgets.” I wanted her to remain interested in and keen to try out new things, whether that be keeping fit on the Wii, taking her first “selfie,” or getting an iPad and buying from

## Constructive Compliments



**1966**

Apparently this new building was going to be a display of contemporary architecture but Doris wasn't entirely sure she should accept the wolf whistles as contemporary compliments.



**2016**

As the demolition boss briefed her team before erasing another Brutalist building, Doris realised that this was the perfect moment to attempt her first "selfie".

Amazon. These were never meant to be tragic scenes of loneliness or mocking Doris's errors for comedic value. I wanted people to have affection toward her and love her sense of adventure even though sometimes she ends up in a bit of a pickle. She goes on blind dates to swanky restaurants, she tries a designer take-out coffee in the park, she buys a Wii and Nunchuk to work on her fitness, and she sees the changing role of women when she encounters a demolition team boss who is clearly female.

Doris in 2016 has the advantage of being older and wiser. It's important to remember that while there are many changes in society and advances in technology, she has the advantage of life experience. This plays out in "The Healthy Life" as 1966 Doris decides to follow the Atkins diet and goes off to find a café

where she can get a plate of bacon, eggs, and sausages. But 2016 Doris is far too suspicious of the benefits of the oxygen bar and the expensive vitamins to fall for these costly "health benefits."

### To Be Continued...

Then & Now is ongoing and I continue to have fun with Doris and the comments people leave me about the scenes. I have built the final two scenes, but I am still filling in all the gaps in between at the moment. Doris still has a few experiences to share and will continue to have fun and enjoy life. Why would she change her adventurous, fun, engaging personality just because she is older? ●

View all of the Doris Then & Now scenes on flickr: <https://www.flickr.com/photos/azurebrick>



### Elsbeth De Montes

Elsbeth De Montes designs and builds her own LEGO creations which have been displayed within LEGO Brand Stores and numerous shows and exhibitions in the United Kingdom. Ms. De Montes works as a senior contributor and blogger for The Brothers Brick, a LEGO blog for adult fans of LEGO that has 20,000 to 30,000 hits daily, and a LEGO parts-obsessive blog called New Elementary.

# REDESIGNING THE COURSE OF OUR LIVES

Debra B. Whitman | CHIEF PUBLIC POLICY OFFICER, AARP

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## **Instead of a straight line from education to work to retirement, imagine a life course with loops and curves, as phases shift back and forth, sometimes repeating or overlapping in different ways.**

As a busy working mom, I spend most of my day racing against the clock. I run from one meeting to the next, drop off my kids at school and soccer fields, and then hurry back home to cook dinner and spend meaningful time with my family.

But even as someone who works on aging for a living, I have been slow to realize that time is actually expanding. Our busy days still last just 24 hours, of course, but people are living longer, adding more years to our lifetimes.

Living longer provides us with an incredible opportunity: If we could just capture some of that precious time that has been added to the end of our lives and use it now, it would open up vast new possibilities for our current days and weeks.

And it would do even more. If we could take advantage of this untapped resource when we are younger, we would greatly enhance our well-being when we are older.

I've come to see the barrier to this as a problem of design.

For most of us, the current progression of life includes three distinct phases. We go to school, we go to work, and finally we retire. End of story.

But if we had the option to tinker with these phases, how would we redesign our lives?

To be time shifters, we need to think about the traditional course of life in new, imaginative ways. Instead of a straight line

from education to work to retirement, imagine a life course with loops and curves, as phases shift back and forth, sometimes repeating or overlapping in different ways. Periods of work could be interspersed with chapters of learning, paving the way for new careers, new experiences and new options.

We don't need to be stuck in the rigid life stages of our parents' generation. Why not borrow time in our "working years" to gain new skills, or use part of our "retirement years" to keep on earning money with those new skills?

A more flexible design of our lives can pave the way for more years of fulfilling experience and financial security.

But it won't happen by accident. Making the most of these exciting possibilities will require change in our institutions, our social policies and the way we think about our own lives.

Importantly, redesigning the life course is a way to disrupt aging, an essential goal that is explained by AARP CEO Jo Ann Jenkins on page 7 of this edition of *The Journal*. AARP's push to "disrupt aging" recognizes that people should be defined by who they are, not how old they are, and that individuals should be able to make contributions at any age.

When that happens, all of society benefits.

For many people, the traditional life course doesn't make sense anymore. A growing number of older workers face a future of



financial insecurity and see limited options to help themselves.

These pressures are making it more important for people to stay productive later in life, and to preserve the health and skill they need to continue earning income.

At the same time, modern economies need the know-how of experienced workers. If the baby boomer generation exits the workforce too quickly, many employers could face a shortage of skills. Experienced workers offer expertise, institutional knowledge and stability that can prove highly valuable to their employers.

Fortunately, changes in technology are making it easier for people to stay in the workforce.

In advanced, knowledge-based economies, most workers can keep on contributing as long as they stay mentally sharp. Technology also makes it easier to work remotely, giving an assist to those who do not wish to commute or who want flexible hours.

But people who wish to redesign their own life course still face many obstacles. Our basic institutions and public programs also must be redesigned.

In the United States and most other developed nations, public attitudes, social institutions, government policies (including financing for education, training and retirement) and employers all assume a traditional progression

from birth to work to retirement to death.

Consider Social Security or other public retirement systems. These kinds of programs are designed for a world in which you work until a certain age and then stop. From then on, you depend on pensions and savings but no longer on earnings.

Yet we know that many older workers desire new career options or need fresh skills as demand for their longtime occupations declines over the years. The problem is they typically cannot afford to quit their jobs and pay for education to put opportunities in reach.

This is not an insurmountable challenge. It just requires some innovative thinking.

What if workers could claim an education benefit from a public retirement program before they retire? This could increase their choices in life—and at a cost the system can absorb. (The worker's retirement benefits could be adjusted so the education benefit would be budget neutral.) It might even strengthen the retirement system, as more individuals hold off claiming benefits and continue to pay taxes.

That's just one example. Many public programs designed for a linear life progression could be redesigned to support a time-shifted life course.

One key would be to find new ways to support lifelong learning, which is a critical strategy for people to thrive in the world that is taking shape. Online education is giving people more low-cost options to

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gain new skills, but much more is required. To help people redesign the course of their lives, the culture of educational institutions must be transformed to welcome people of all ages.

This will require a dramatic change in the way we think about colleges and all educational institutions. Potentially, this could affect curriculum, services offered, class schedules and an awareness of the school's very mission.

In this new world, the college student body will no longer be overwhelmingly composed of students in their late teens and 20s. Students the age of their parents and grandparents would be more widely represented, and the traditional college campus will need to transform to support all ages.

Employers will also need to be engaged in supporting individuals as they follow a more flexible life course. Workplace policies affecting leave time, scheduling, telecommuting, training, development and retirement all have the potential to support or impede those who want to use time in innovative ways. Leave models that support time out of the workplace for family caregivers are essential. In many cases, employers can adapt existing policies for maternity and paternity leave to help family caregivers who face enormous, time-consuming responsibilities.

There is a strong business case for this: At any moment, workers of different ages are trying to step up the ladder, step off it or move sideways into new roles. By implementing strategies to support these efforts,

employers will improve productivity and worker morale. Organizations with the right policies will prosper, attracting talent and an energized labor force.

In the end, redesigning the life course will require much from individuals themselves.

Thinking more holistically about the span of our lives can influence the decisions we make today. Investing time in our own health through regular exercise and healthy diets can pay off for many years. Finding ways to lower stress is a personal investment that can yield rewards far down the road when we want to remain productive. The goal should be to recognize that time in which we are active and healthy is a valuable asset, and that there is much people can do to optimize and extend it.

When you are young, it may be hard to plan for a phase of life that may be decades away. But young people have the most to gain by looking ahead, because they have the most time to work with.

All segments of society stand to profit as individuals take steps to redesign their life progressions. National economies will be strengthened by an infusion of skill and energy, and individuals will be empowered to live more rewarding, secure lives.

Seizing on the possibilities brought by our added years will enable us to accomplish things that earlier generations could only dream about. ●



**Debra B. Whitman**

Debra Whitman is AARP's chief public policy officer, leading policy development, analysis and research, as well as global thought leadership supporting and advancing the interests of individuals 50-plus and their families. She oversees AARP's Public Policy Institute, AARP Research, Office of Policy Development and Integration, Thought Leadership, and AARP International.

Dr. Whitman is an authority on aging issues, with extensive experience in national policymaking, domestic and international research, and the political process. An economist, she is a strategic thinker whose career has been dedicated to solving problems affecting economic and health security, and other issues related to population aging.

## SPOTLIGHT

# BARBARA BESKIND



PHOTO: IDEO

**NAME:** Barbara Beskind

**PROFESSION:** I am a lifelong problem solver and designer in both my 44-year career as an occupational therapist and my new career as a conceptual designer at global design firm IDEO, where I have recently been named a fellow.

**MOTTO:** Stay vertical and move forward with an inquisitive mind.

**CURRENTLY READING:** Nothing. Being legally blind, I can read only one letter at a time on the New York Times headlines to identify articles on business, technology, and current work. Tuesday's edition (the science section) is a special treat, and I relish having articles of interest read to me. Without fail, I listen to a three-hour book program each weekend to keep abreast of recent books on world events, archaeology, history, and technology.

**FAVORITE HOBBY:** A lifelong love of learning. I'm an artist, a writer, and a designer.

**FAVORITE PART OF JOB:** As a soon-to-be 93-year-old, I'm a conceptual designer at IDEO, where I share a lifetime of experience with young

designers and engineers. My favorite part is working with young people and exchanging ideas. My expertise focuses on improving life for the physically handicapped, the elderly, and the visually impaired.

**SURPRISING LESSONS LEARNED**

**WHILE AT IDEO:** The warm welcome, respect, and acceptance of my ideas and point of view from people of all ages and global backgrounds. They energize me!

Unless you stretch the mind, you will not be able to access untapped resources. This is what working at IDEO has done for me.

**BIGGEST MISCONCEPTION ABOUT**

**OLDER ADULTS IN THIS COUNTRY:**

That the elderly are no longer able to contribute meaningfully to their community. People may also equate aging with cognitive decline.

**ADVICE TO TEENAGE SELF:** Establish good posture and a strong walking gait to maintain optimal balance in one's older years. And keep a passion for lifelong learning!

**INVENTION THAT GAVE YOU THE MOST**

**SATISFACTION:** My design of inflated therapeutic equipment for children with learning disorders to improve their balance. I had developed these in my occupational therapy [OT] clinic, which was the first private OT clinic in the United States.

**BIGGEST CHANGE OR ADVANCEMENT**

**THAT NEEDS TO BE IMPLEMENTED TO**

**HELP SENIORS:** Develop hearing aids that are more user friendly for the elderly. For example, some elderly people have a hard time changing the small batteries due to poor vision and/or dexterity.

**ADVICE FOR SENIORS WHO WANT TO**

**BE MORE ACTIVE:** Never let age define you nor limit what you can do!

Always cultivate and contribute to active, engaging relationships with younger generations.

**BIGGEST CHILDHOOD INSPIRATION:**

My parents taught me up to be a problem solver, and to be self-disciplined, self-motivated, and self-reliant. Because I grew up during the Great Depression, these were essential skills. They served me well during my 20-year Army career, one of the most important experiences for me in successful aging. We lived with my grandmother, who was a voracious reader. She had a "lockbox" memory, reciting Shakespeare the day she died at age 96.

**THOUGHTS ON THE STATUS OF WOMEN**

**AND OLDER PEOPLE:** There are more opportunities for women to work outside the home in professions other than teaching, nursing, and secretarial work compared with when I began my career. As a result, women may be somewhat better prepared for their later years. I was fortunate to never be disadvantaged or harassed during my Army career.

As a child, I saw elderly women, like my grandmother, put on a pedestal when they became widows. Currently, it's more acceptable for women to move forward in their lives after the loss of a spouse. I believe this is moving in a healthier direction.

**THE AFFECT OF AGING ON YOUR**

**PERSPECTIVE:** I treasure the exposure to diverse ideas, in both my personal and my professional life. ●





AARP International engages global stakeholders to spark solutions that strengthen communities, protect the vulnerable and enable people around the world to pursue their goals and dreams. Working with governments, civil society and the private sector, we are focused on enhancing the quality of life for people as they age. We serve as the global voice for AARP, a social change organization with a membership of more than 37 million.

**It's time to think about the traditional course of life in new, imaginative ways. Instead of the conventional progression from education, to work, to retirement, imagine a more vibrant journey: phases shift back and forth, and periods of work are interspersed with chapters of learning and exploration, leading to new careers, transformative experiences, and boundless options.**