

An ageing well collaboration: opportunity or wicked problem

Lois Marjorie Hazelton, Laurence Murray Gillin, Fiona Kerr, Alison Kitson and Noel Lindsay

Lois Marjorie Hazelton is based at ECIC, University of Adelaide, Adelaide, Australia.

Laurence Murray Gillin is based at ECIC, University of Adelaide Faculty of the Professions, Adelaide, South Australia, Australia.

Fiona Kerr is based at Professions Office, University of Adelaide, Faculty of Professions, Adelaide, South Australia, Australia.

Alison Kitson is Executive Dean based at the Flinders University Faculty of Medicine Nursing and Health Sciences, Adelaide, South Australia, Australia. Noel Lindsay is based at ECIC, University of Adelaide Faculty of the Professions, Adelaide, South Australia, Australia.

This viewpoint had its genesis within the Ageing and Living Well Think Tank, University of Adelaide, November 2015. The authors express appreciation to Nick Callinan, Jeanette Walters, Megan Corlis, Peter Balan, Mike Rungie, Jane Mussared, Ross Bensley and Rob Chalmers, for their valuable insights and comments.

Strategic opportunities for innovation that can facilitate a quality ageing experience are hidden within large, complex problems. Such complex social problems can be described as “wicked”. These problems are characterised as malign, vicious, tricky and aggressive, with no single solution. The growth, worldwide, in the demographic from baby boomers moving into retirement is an “inconvenient” truth requiring new entrepreneurial strategies for innovations.

Ageing of the population and consequent care of the elderly is an excellent example of a wicked problem: individuals as they age have always been concerned about the “who, what, where, why and how” of their future. Families and significant others have become increasingly concerned with modifiable factors and innovations that contribute to ageing well; independence for people older than 65 in the community; and the quality and availability of elderly care services at all levels. There are close to two million Australians over the age of seventy and the number is set to double in the next twenty years. Older people make strong economic contributions to society through consumption. In the USA, those older than 55 controlled 70 per cent of all disposable income in 2017. In France, those older than 55 will be responsible for two-thirds of all increased consumption between 2015 and 2030.

A strategic imperative for social responsibility and enterprises servicing the baby-boomer market is to offset any dependence on government handouts in meeting market needs because of the competing demands placed on government funds, increased regulation and compliance. To be sustainable, therefore, social enterprises must interpret and apply the strategies and behaviour of successful entrepreneurial ventures operating in the for-profit business sector. However, business entrepreneurship is not the same as social entrepreneurship. Within ageing well and elderly care, social entrepreneurship and innovation involve pursuing opportunities for enhancing social good, where unique resource combinations and a focus on individual/resident values are used to produce significant social innovations.

This aging population creates significant opportunities and challenges for society. Pensions and retirement incomes will need to last longer. Health-care costs will increase dramatically. The service economy will capture an increasing percentage of gross domestic product as the elderly require more help from services as opposed to products and the workforce pays for many social benefits of the elderly. As the population ages, there are fewer taxpayers supporting the growing number of nonworking retirees. But in addition to these tangible issues are the intangibles such as the emotional, psychological, social, economic, dietary and physical sides of aging. The aging of the population creates challenges socially and

economically. Importantly, innovation is not simply invention, products or processes. It is also the application to better methodologies; making new connections between existing products, services or processes; and novel changes, improvements or transformations in healthy living.

Governments world-wide seek to stimulate innovation and entrepreneurship to foster economic development and growth and invest in ageing well initiatives that facilitate self-styled choices. As a consequence, and in relation to ageing well, governments are turning their attention not only to the entrepreneur to drive innovation but also to the context within which the entrepreneur operates: the ageing boomer population; increasing use of health services; growing tourism and leisure; and the interactions between firms and the institutions that support and facilitate innovations designed to enable ageing well through entrepreneurial behaviour at the individual, group and organisation level.

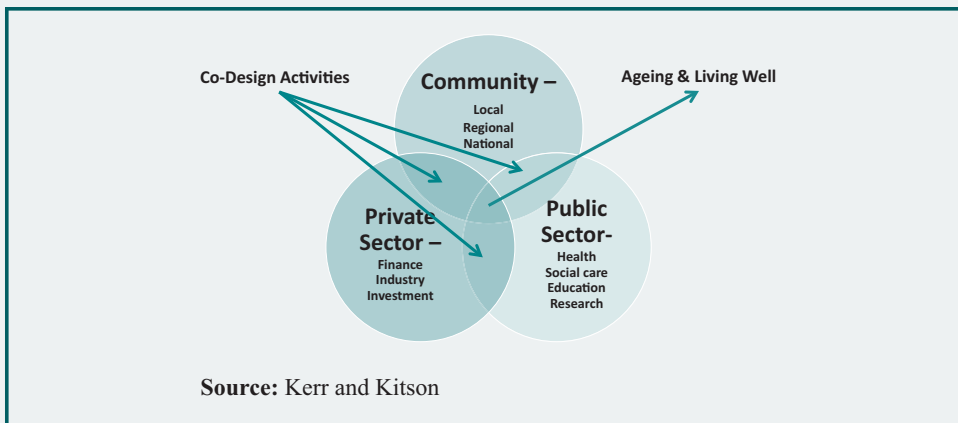
Ageing well need for collaboration

The changing demographics of our national populations provide a major social and economic opportunity. The number of people aged 65 years and over is projected to increase more rapidly over the next decade as further cohorts of baby boomers (those born between the years 1946 and 1964) turn 65. Currently only six cohorts of these birth years have reached 65, and there are 12 remaining. This is driving a growing demand for leisure, tourism, accommodation, food, beverages, preventative health, assistive technology and many other products and services that appeal to older citizens. The over 65's is the fastest growing group, estimated to be one in five within 30 years, and the largest group among them is the over 85's, set to double within 15 years, again by 2045 and again by 2069 (Australian Bureau of Statistics, 2017). To meet this challenge, an active collaboration of stakeholders from three key areas is required: the public sector (health, social care, education, research), the private sector (finance, industry, investment) and community (local, regional and national) to work together on multiple initiatives, all with the same outcome: to create a new vision for ageing well in place.

At the strategic overview level, each sector must define and coordinate the needs of the ageing sector as well as maximising the huge potential opportunities across all aspects of society to ensure the highest quality outcomes are achieved for not only the ageing population but also all sectors of the state and country. Figure 1 illustrates this concept.

The focus is on working together in a joint intellectual effort to establish an “innovation collaborative” structure comprising health professionals, government agencies, ageing well

Figure 1 Active stakeholders in ageing well collaboration concepts



providers, “encore” career specialists, life-style providers, community groups, wealth creation specialists; technologists and industry innovators. The purpose of the innovation collaborative structure is to streamline the progression of identified opportunities towards prototyping, objective validation, resource development and gaining acceptance in the market place so that boomers age and live well in a community that seeks solutions to solving problems.

The uniqueness of this concept is the determination to realise effective collaboration by including both boomers and older people in the co-design of projects with personnel from each of the three sectors, as Figure 2 shows. “It is important older people are in the same sand pit”.

A further point of differentiation in operationalising this model is the creation of a self-organising method for communication, idea flow and linkages that deliver needed product/service developments to the target users. (see concept, Figure 3).

Person-driven living collaborative framework

Ageing and living well (including such concepts as active ageing and healthy ageing) need to be a lived experience, contingent on the community, private and public systems working together and collaborating to make it happen. The central tenet of this collaborative concept is that the lived experience is both created and facilitated when the three sectors (Figure 1) all work interdependently, synergistically and inclusively with boomers and older persons. Much has been viewed through the lens of consumer choice and development of products, programmes and services, but we believe it is time to look at other frameworks and models that seek to understand self-styled living, personal values and satisfied user experiences.

One concept is that of the “living laboratory” (Erikson, 2005), a model where the emphasis is not on the continued innovation of new technical products with superior technical performance, but rather on understanding the user situation and innovation that deliver solutions to match those in a changing society. The individual is in focus in the role of a citizen, user, consumer or worker. Pallet (2009) argues that a “living lab” is neither a traditional research lab nor a “testbed” but rather an “innovation platform” that brings together and involves or engages all stakeholders such as end-users, researchers, industrialists and policymakers at the earlier stage of the innovation process to experiment

Figure 2 Boomers and ageing well – a living collaborative framework

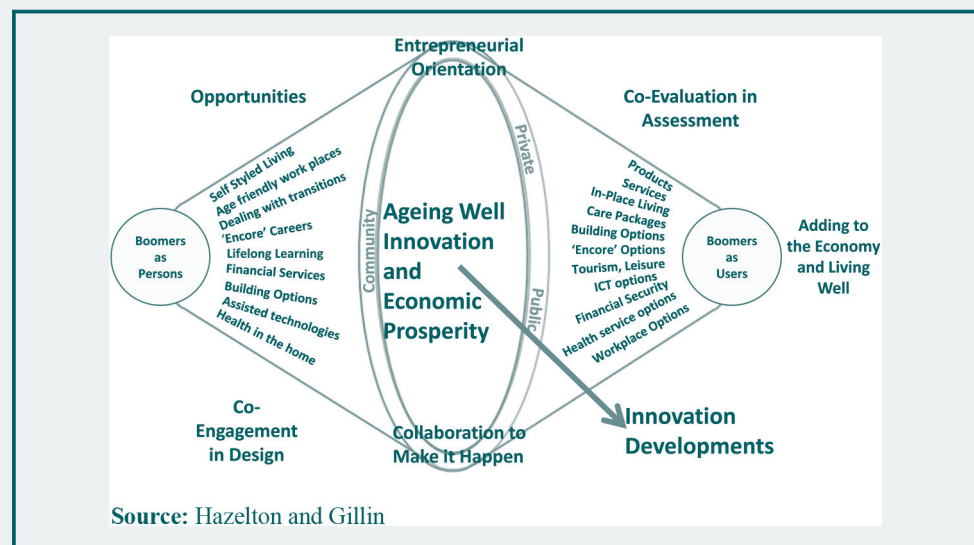
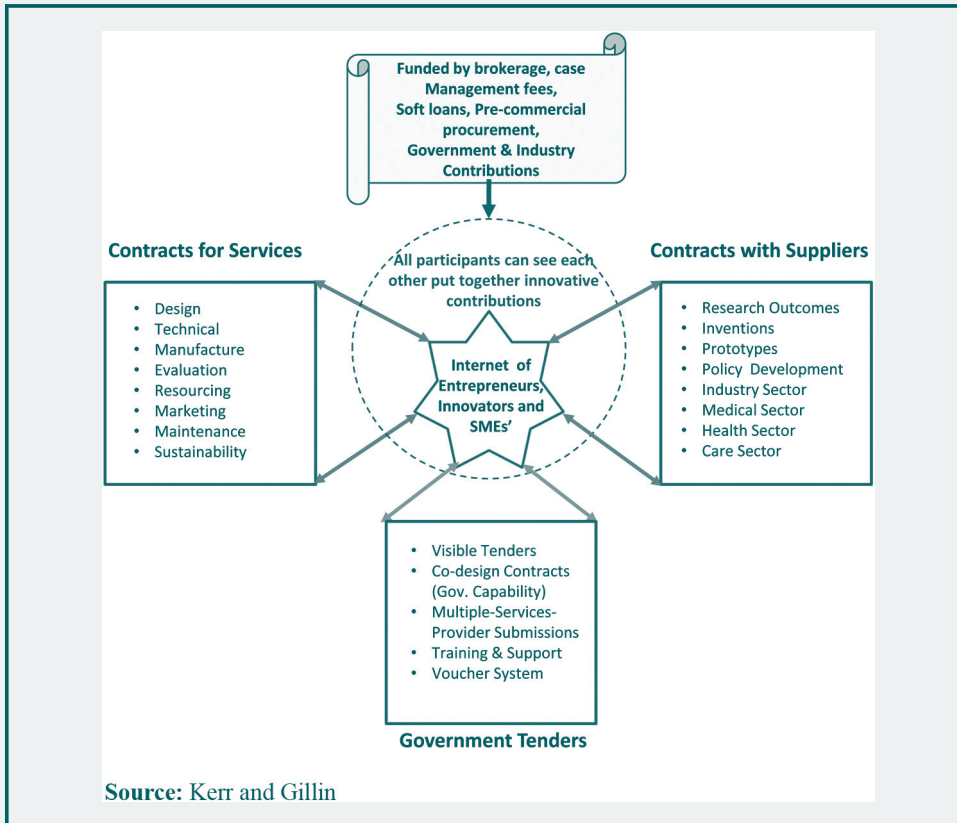


Figure 3 Ageing well innovation collaborative – operations model



breakthrough concepts and potential value for both the society (citizens) and users that will lead to breakthrough innovations.

Using the definition of collaboration (Macnamara, 2004) as “a creative process of knowledge/wisdom sharing within a community of common interest, the pursuit of a new level of excellence in service provision, product design, and/or policy formulation and which is unattainable on one’s own”, we proposed to the Premier of South Australia a new paradigm of a ‘living innovation collaborative’ in the form of an Ageing and Living Well Innovation Collaborative structure. This formed part of the 2015 Ageing and Living Well Think Tank in Adelaide, SA. that brought together health professionals, research specialists, ageing well providers, “encore” career specialists, life-style providers, community groups, wealth creation specialists and industry innovators to streamline the progression of identified concepts towards prototyping, objective validation, resourcing development and gaining acceptance in the market place of the ageing community. In addition, the think tank focussed on using collaboration to adding value to the economy.

In contrast with the living laboratory integrating user and developer experiences, we add to this perspective by placing the emphasis on a “person centred” perspective where potential users participate in co-design and evaluation of services and products. Hence, in the framework (Figure 3), the action begins with the boomers exploring or identifying and co-designing the opportunities within the collaborative structure of community, public and private sector interactions and finally co-evaluating the prototype products and services from a user perspective. This boomer-centred collaborative is committed to a make-it-happen practice to achieve ageing well innovations that contribute to economic prosperity as well as the lived experience. Such a creative process of knowledge and wisdom sharing

within a community of common interest and in pursuit of a new level of excellence in service provision, product design and/or policy formulation is unattainable in the traditional linear view of development.

An important corollary to this paradigm is the importance of taking small steps in approaching change to the living system that is both user-friendly and economically responsible. Using the well-established entrepreneurial approach in facilitating new venture creation of applying the entrepreneurial measure – that “failing quickly and cheaply” is preferable to “failing slowly and expensively” – new solutions are thus tested and proven in assessing system change. This dynamic approach provides opportunities that ensure ongoing interaction with the boomers themselves as they, in all their restlessness and discovery, interact with imaginative and clever professionals.

Commercial entrepreneurship tends to focus on breakthroughs and new needs, whereas social entrepreneurship often focuses on serving basic long-standing needs more effectively, including ageing and elderly care, through innovative approaches. For a commercial entrepreneur, an opportunity must have a large or growing total market size and the industry must be structurally attractive. For a social entrepreneur, a recognised social need, demand or market failure usually guarantees a more than sufficient market size. The problem is not the existence of the need, but whether the necessary resources can be marshalled for the social entrepreneur to deliver the innovation as a valued response to the need and whether the user is prepared to exchange value to use the benefit. .

Ageing well and a living collaborative operations model

Opportunities are central to triggering entrepreneurial and innovative behaviour and both commercial and social entrepreneurship require the investment of scarce resources with the hope of future returns. At the conceptual level, opportunities may seem similar across commercial and social entrepreneurship but in practice, “the opportunity dimension of the framework is perhaps the most distinct owing to fundamental differences in missions and responses to market failure” (Austin *et al.*, 2006).

At the operational level, our viewpoint is that individual contributors (whether in the shape of the consumer, supplier or tender creator) need both the skill and capacity to shape and create an environment where such contributions can be successful and must minimise risk. For example: through government officers skilled in innovative tendering and co-design; knowledge suppliers who are expert in new research, development and prototypes; service contractors who are informed of opportunities and supported to play a part in their fulfilment; and consumers who are aware of what is available and how to get it. They may also be in one or more of these identifiable groups. [Figure 3](#) illustrates this operational relationship.

Central to this Innovation Collaborative operations model is the core group collaborating with the network of knowledge suppliers, government resources and service contractors through an open internet-based network where all participants can see both each other and the opportunities being presented for tender, enhancing their capacity to co-design and build their innovative contributions. This operations model is based on the need to

“Individuals as they age have always been concerned about the “who, what, where, why and how” of their future.”

“Within ageing well and elderly care, social entrepreneurship and innovation involve pursuing opportunities for enhancing social good.”

understand this network as a human system which operates in an adaptive manner to deal with complex problems when there is a high level of interconnectedness. As in all human systems, this promotes a flow of information, ideas and communication horizontally across relationship networks, especially in an environment of “raplexity” (the combination of rapid complexity) (Liang, 2010). The model is particularly suited to the “Person Centred Care” and “Relationship Centred Care” aspects of ageing well as it facilitates the need for relationships identified as an enabler for ageing people when seeking an innovative approach to integrating the outcomes from identified opportunities that are valued by the person using the “services” available.

Collaboration is essential. These new ventures depend not only on sector-specific domain knowledge and customer relationships but also on expertise in analytics, cloud services, wireless connectivity, software and security. Liu and Brody (2016) describe this collaboration as “the new innovation - an industrial mash-up.” They explain that a company shares an asset or capability with one or more partners in a way that creates new possibilities for all without infringing on the company’s ongoing use of the asset. Participants develop new products and services rapidly by piecing together components from an ecosystem of collaborating partners. Such mash-ups may take many forms, but unlike mergers or joint ventures, mash-ups operate under simple collaboration agreements that may not specify financial terms.

However, in the model presented they can become formalised and contractually based through second sourcing, pre-commercial procurement methods, government assurance programmes and incentivised contracting solutions that are based on co-created contracts which measure the right things and intelligently manage risk. This requires both reskilling and the reframing of risk for procurers (as outlined below), and the implementation of an easily used network that acts as a virtual market place and discussion forum to allow people to see both each other and the market procurement needs they can engage with, usually via collaboration.

Collaboration network

Such collaboration is aimed primarily at finding mutual benefits through effective sharing and utilisation of resources, risk and reward. To be successful, the partners require a platform that invites people to collaborate, interact and learn from each other. As with any connected system, it allows for a form of “guided self-organisation” which is much more efficient than control in terms of both expended energy and the need for formal administration (Helbing and Lämmer, 2008). The level of collaboration and co-creation allows for building “shared values and purpose through local interactions due to the elements of choice and intentionality” (van Eijnatten, 2004) and is a key success factor in examples such as the PIANO initiative in The Netherlands, which is set up for public procurement of innovation. In this system, there is recognition that for government organisations to leverage the creative and innovative potential of industry they need to support projects with tools and capabilities which activate networks of innovative SME’s, and which also supports public authorities through skill building and political commitment, as this allows procurers to manage risk whilst co-creating projects.

The model in [Figure 3](#) is built on the concept of PIANO'S knowledge network that was produced for SMEs to enable a virtual marketplace for tenders (tendernet) with online discussion forums and the ability for people to build collaborative networks and participate in larger contracts through second sourcing. Due to its high level of self-organised connectivity, an astounding 80 per cent of SMEs have used it. This model is ideally suited to the fastest growing segment of new business owners in Australia, referred to as seniorpreneurs, olderpreneurs or silverpreneurs. The Australian bureau of statistics shows almost 35 per cent of all new businesses consisting of "seniorpreneur" start-ups. Other examples are the new technology purchasing assurance programme in Korea, the UK Forward Commitment Programme or the Austrian PPI. Among them are examples of legislative innovations, unbundling of large contracts, procurement commercial acumen and incentivisation solutions.

Procurement reframing

What the government buys, who from and how shape innovation. Questions such as whether it is based on lowest price or innovative problem solution, or whether it is fixed price, or rewards creative solutions arise. Other questions include: Is the decision short term or long term for national benefit?

Success in such a system depends on the capacity for procurers to have the time, knowledge and permission to intelligently manage risk. They can then collaborate with suppliers and engage them in innovative solution building with appropriate measurement and incentives, including a commitment to reward increased innovation during projects.

The Government Tender box ([Figure 3](#)) shows procurement is the part of the system. It trains the procurement sector of government to create a capability for innovative, collaborative servicing by small suppliers (including seniorpreneurs, family businesses and SMEs) and others who do not get backing because they are seen as a potential risks. Observations from countries such as those listed above illustrate the effectiveness of an innovative ecosystem. Where public servants and the private market are skilled at designing innovation-based contracts, individuals and groups can connect directly, and the government underwrites the risk. It is interesting to note that the Korean performance certification system (which began in 2006) included government underwriting of potential late delivery by innovative SMEs, as well as mandatory purchasing of 20 per cent new products by public procurers, and this penalty cost has never been incurred. Instead there is an increase in SME engagement and the level and the cutting-edge nature of innovative solutions and delivery outcomes.

Funding the collaborative nerve-centre would be backed by demand side policy which drives outcomes and suits SMEs. Supply side tools drive activities such as scenarios for soft loans in preference to grants and pre-commercial procurement budgets, along with brokerage and case management fees, and government and industry contributions using established venture management practice.

Collaborative structure and governance

To drive this proposed innovation collaborative structure to the next stage, and a full business assessment, it is necessary to establish a strong board to both review the concept

“Potential users participate in co-design and evaluation of services and products.”

described and develop an Innovation Collaborative organisation structure and governance model that can deliver such an integrated concept. In this concept, industry, research providers, product service providers and users need to be the partners driving these collaborations. In reviewing the long running Australian Co-operative Research Centre programme, where industry, research centres and government are joint partners, industry needs to take the lead in describing the problem and pulling together the right players, and work on the solution alongside the researchers. Collaboration and commercialisation are necessary to achieve effective innovation within the ageing and living well community. Completion of a research programme and delivering a user-valued solution to the problem should be recognised as success for the collaborative entity. Success should not be defined by the research break-through.

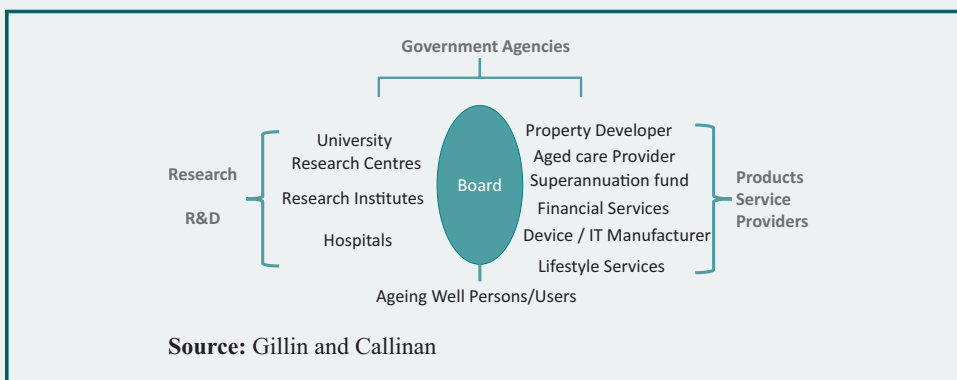
In our view, the balance of membership on the board should favour the industry/products/service providers group. Such a balance will ensure that the strategic direction of the Innovation Collaborative structure focuses on achieving effective ageing and living well outcomes. The research groups will support such outcomes by co-operating with linked product/service providers who will help in “pulling-through” their inventions and new knowledge to achieve effective innovation and economic benefits.

Figure 4 suggests a board membership drawn from the following stakeholders – government agencies; research and development entities; product and service providers; SME representatives, funding partners and active ageing persons.

Within this board structure, paradoxes will arise in dealing with the tensions between the parties’ differing perspectives. Empirical research on not-for-profit boards in elderly care facilities suggests governance is a complex, inherently difficult and problematic activity. Stewardship theory as a partnership model, resource dependency theory as a co-optation model, stakeholder theory as a stakeholder model, and trust, taken together with an entrepreneurial mindset among board members, result in the best sustainable innovation outcomes and corporate behaviours.

Effective innovation outcomes will be predicated on the organisation having an appropriate governance approach and structure that mediate tensions and facilitates the capacity to identify opportunities that enhance the ageing and living-well experience of “Boomers”; a capacity to contract both SMEs and larger companies to develop the opportunities into user valued outcomes; the capacity for SMEs and skilled individuals to collaborate in self-organised ways and a capacity to network venture resources that deliver these outcomes to a sustainable market of ageing citizens.

Figure 4 Ageing well innovation collaborative board structure



“These new ventures depend not only on sector-specific domain knowledge and customer relationships but also on expertise in analytics, cloud services, wireless connectivity, software and security.”

Conclusion

This viewpoint, on the need for an Ageing Well Innovation Collaborative entity, is predicated on overcoming market imperfections, reducing silo thinking that gives rise to linear solutions, facilitating communication and trust amongst the key stakeholders, and facilitating effective solutions to ageing well problems through research and innovation.

The point of differentiation in seeking to deliver ageing and living well products and services is that of working in a collaborative, integrated and interactive organisation across public, private and community, and with boomers as persons to make it happen. Central to this Innovation Collaborative entity is collaboration within the network of knowledge suppliers, government resources and service contractors through an open internet-based or cloud network.

This type of collaborative shows the impact of innovations on health professionals responding to practice-determined treatment policies and regimes that do not always take account of the issues, lifestyle and choices people make. The collaborative examines whether programmes are imposed as opposed to chosen and based on accepted values and whether boomers are sandwiched between meeting the financial needs of parents in care and financial needs of their children.

Keywords:
Innovation

References

- Austin, J., Stevenson, H. and Wei-Skillern, J. (2006), “Social and commercial entrepreneurship: same, different, or both?”, *Entrepreneurship Theory and Practice*, Vol. 30 No. 1, pp. 1-22.
- Australian Bureau of Statistics (2017), “Australian demographic statistics”, June quarter, available at: www.abs.gov.au/ausstats/abs@.nsf/0/1CD2B1952AFC5E7ACA257298000F2E76
- Erikson, M. (2005), *State-of-the-Art in Utilizing Living Labs Approach to User-Centric ICT Innovation*, CDT, Luleå University of Technology.
- Helbing, D. and Lämmer, S. (2008), “Managing complexity: an introduction”, in Helbing, D. (Ed.), *Managing Complexity: Insights, Concepts, Applications*, 1st ed., Springer-Verlag, Berlin, pp. 1-16.
- Liang, T.Y. (2010), “Innovative sustainability and highly intelligent human organisations (iCAS)”, *The New Management and Leadership Perspective. International Journal of Complexity in Leadership and Management*, Vol. 1 No. 1, pp. 83-101.
- Liu, J. and Brody, P. (2016), “Is collaboration the new innovation?”, *Harvard Business Review- Analytic Services Report*, Harvard Press, MA.
- van Eijnatten (2004), “Frans M. learning organization”, Vol. 11 No. 6, pp. 430-449.
- Macnamara, D. (2004), “Leading collaboration-leading interdependence”, available at: www.banffexeclead.com/Newsletter04/PDF/Leadership%20Acumen%2015%20V1.2%20Collaboration%20%20Interdependence%20on%20Masthead.pdfBanffExecutiveLeadershipInc
- Pallet, M. (2009), “The living lab approach: a user centred open innovation ecosystem”, *Webergence Blog*, available at: www.cwe-projects.eu/pub/bscw.cgi/715404

Further reading

Cornforth, C. (2004), "The governance of co-operatives and mutual associations: a paradox perspective", *Annals of Public and Cooperative Economics*, Vol. 75 No. 1, pp. 11-32.

Hazelton, L.M. (2013), "Governance and Stewardship in the Aged Care Industry: Evaluating a model for Corporate Social Entrepreneurship - The relationship of Board culture to entrepreneurial behaviour", PhD Thesis, ECIC, University of Adelaide.

Kerr, F. (2013), "Creating and leading adaptive organisations: the nature and practice of emergent logic", PhD Thesis, available at: <https://digital.library.adelaide.edu.au/dspace/handle/2440/91144>

Miles, D.F. (2015), *Growth through Innovation and Collaboration: A Review of the Cooperative Research Centres Programme*, Department of Industry and Science, Commonwealth of Australia.

OECD (2011), "Together for better public services: Partnering with citizens and civil society", *OECD Public Governance Reviews*, OECD Publishing, doi: [10.1787/9789264118843-en](https://doi.org/10.1787/9789264118843-en).

Romanski, H. (2013), "Cisco announces acquisition of collaborate.com", available at: <https://blogs.cisco.com/news/cisco-announces-collaborate-acquisition>

About the authors

Lois Marjorie Hazelton is an RN and PhD from ECIC, University of Adelaide. Her research established a significant link between an entrepreneurial mindset in Board leadership of elderly care facilities and delivery of effective innovation as valued by residents. Lois was the proposer and co-organiser of the Ageing and Living Well Think Tank.

Laurence Murray Gillin is an Emeritus Professor in Entrepreneurship from Swinburne University of Technology, Australia. He currently serves as an Adjunct Professor at ECIC, University of Adelaide and at AGSE, Swinburne University of Technology. Started the world's first Master of Entrepreneurship and Innovation and co-organised the first Ageing and Living Well Think Tank. Laurence Murray Gillin is the corresponding author and can be contacted at: murray@ausentrepreneurs.com

Fiona Kerr is an Industry Professor, Neural and Systems Complexity at the University of Adelaide. After thirty years working in public and private sectors to increase adaptive capacity before joining academia, she now works primarily on the neurophysiological and sociological impacts of human interaction and increasing rephonologisation (in particular AI). Each of these areas have profound impacts on ageing populations and societies.

Alison Kitson is the inaugural Vice President and Executive Dean of the College of Nursing and Health Sciences at Flinders University, South Australia. A nurse by professional background, her research interests span how to get new ideas or evidence into everyday practice and how to improve the fundamentals of care people experience in hospital and residential care settings. Alison was Co-Chair of the Active Ageing and Living Well Think Tank.

Noel Lindsay is Pro Vice Chancellor (Entrepreneurship) and Director, Entrepreneurship, Commercialisation and Innovation Centre, The University of Adelaide. Noel was Co-Chair of the Ageing and Living Well Think Tank.

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com