

Europe's 'Silver Economy': A potential source for economic growth?

Gerard Cornet PhD^a

^aSociété Française des Technologies pour l'Autonomie et de Gérontechnologie (SFTAG), Grenoble, France; E: gerard.cornet2@sfr.fr

G. Cornet. *Europe's 'Silver economy': A potential source for economic growth? Gerontechnology 2015;13(3):319-321; doi:10.4017/gt.2015.13.3.001.00* 'Silver Economy' is the umbrella concept put on the policy agenda by economists and senior markets experts as a new path for growth, because of the increasing needs of a growing population of old consumers. It aims at capturing old persons' buying power to support the flourishing technology innovation market for healthcare and autonomy services in IADL, including fun and social integration. But most of the technology-push projects (still) fail to reach the great diversity in mass market segments. Main obstacles remain lagging sales in order to support innovation technology development and valid business models for the wellbeing of older adults. In spite of applying theoretical technology acceptance models in product design, innovative technologies do not match a realistic approach of users' need priorities or choice motivations. The Lazy theory enlightens this situation and might pave the way to reach the gerontechnology aim.

Keywords: Silver economy, old-users needs assessment, technology acceptance models

The European Commission (EC) intends to stimulate Europe's Silver Economy¹. European measures and calls have been launched to help the European industry^{2,3}. A Silver Dollar–Longevity Revolution Primer⁴ came from the USA, and the French government set up a Silver Economy Branch Agreement with professional stakeholders⁵. Silver economy is on the agenda of policy and politics for new economic growth.

EC informs us that the Silicon Valley Guru tells us about a new 'golden market' that is arising from demographic transition^{4,6}. Both the Accenture Institute and a modelling contribution of Oxford economics^{7p12,p62} quoted the silver economy as one of the four waves of potential growth at the 2020 Horizon. They expect 2.1% GDP (Gross Domestic Product) above the current trajectory for Germany and 2.5% for the UK. This should be added to a 3+% additional growth potential by the multi-technology future wave. The opportunities for a new growth are great. However, the Oxford study also underlined "these opportunities are by no means guaranteed" and "creating conditions for success is necessary".

It is time to clarify the umbrella concept. A 'Silver Economy' encompasses a great diversity of individuals as to status, income, health, social and cultural context. It contains the 50+ markets for wealthy baby boomers, active retirees, as well as for poor and frail older adults, mostly lonely women at risk of dependency and social isolation. To which extent is the 'Silver Economy' matching the gerontechnology goals nowadays?

NOWADAYS

Gerontechnology is user-centric, inclusive and multidisciplinary. Its goal is to improve technology innovation for the wellbeing, social inclusion and independence of the inhabitants of an ageing society. On the other hand, 'Silver Economy' measures are designed for support of innovations and services for profit, but also for outputs that match the increasing demand of services and goods for massive ageing generations. Currently 'Silver Economy' is mainly targeting people with higher income and buying power^{8,9}.

Have the flourishing technology innovation projects developed by start-up companies or large project EC-funded consortiums succeeded in designing usable and acceptable innovations for older adults? Or is this challenge, following Herman Bouma¹⁰, still far from well addressed? Results of practical experience, reports on experimentations at the European or French level¹¹⁻¹³ and a synthetic look at some AAL (Ambient Assisted Living) funded projects¹⁴ as well as a more theoretic analysis, may explain why the booming supply of technology innovations is having problems to reach the mass market.

THE EXPERIENCE

To which extent are scientific theories used, such as technology acceptance models¹⁵ (TAM 2, UTAUT), to pave the way to the mass market in the development of new innovative products and services?

From experience concerning companion robots (Companionable¹¹, FP7 e-inclusion¹⁶, call 1-Quo Vadis¹², ANR Tecsan French public authority¹⁷)

and also as an active expert reviewer, I noted both the interest for the method but also the lack of applying technology acceptance models in the design process. The models are too complex: they take into account too many external variables in predicting rational decisions of users. Also, the need is for technology adoption, rather than acceptance¹⁸. The models do not compare to solution systems already existing in everyday life.

THE OLDER USER

Moreover it proved difficult for old end users to foresee a worsening decline of their functional capacity or health condition. Since our brain and decision making process is based upon positive emotions, negative emotions keep us from accepting solutions designed for safety, except when emergency or evidence of critical situations offer us no other choice. For example in France¹⁹ an old person will not accept domotic devices providing a light path from the bedroom to the toilet at night if it awakes her/his pet; nor will s/he accept to pay for video contact with nearby living relatives; nor accept to pay for an upgraded telewatch service if a cheap basic service also works; nor make the effort to pay for a diversity of stand-alone devices with the perceived risk of losing control.

But it may be acceptable to pay for friendly and accessible technology for fun, or to keep up social relationship with distant grandchildren. Identification of actual end users' needs and priorities that may differ from the the ones of carers- may help to define the set of possible solutions fulfilling priority needs and to list their specifications.

COSTS

Most European funded platform projects^{2,3,11,12,14,16,17,19} did not succeed in assessing the full cost of services because of the diversity in national and cultural contexts and provisions. More often than not, the projects do not address training needs and friendliness of after sale support. These projects try with difficulty to design a realistically integrated and interoperable solution. It leads to a lack of sustainable business models.

THE LAZY ANSWER

Positive long lasting experimentation in real daily life is a necessity to assess the relevance of a ser-

vice-solution proposal. It would take into account the end users 'contextual specificity', as to product customization, knowledge and prior experience of the user, and his/her capacity to memorize and learn, and to use the technology without failure.

According to the Lazy user theory and Lazy model²⁰, the end user will select the solution offering the lowest level of effort. This model enlightens the common logic of choosing a new technology device over an old one for a perceived problem. In selecting products and services the Lazy model encompasses not only the monetary (personal) cost, but also use of time, physical and mental effort, and our social representation. This model is based upon a prior user needs identification and user state.

TECHNOLOGY PUSH

Unfortunately that is not what most of the technology-push solutions are offering to old persons still being autonomous or in situation of pre-frailty and with the possibility to make their own choice.

Ethical rules, security and protection of personal data, dignity, acceptability, and usability are all addressed in the research process of innovative products. However, one main ethical issue (and a likely successful business model), connected with the Lazy paradigm, remains not well addressed. Quoting the applied ethics guideline of the Markkula Center, Santa Clara University²¹: "Is the solution relevant and offering the lowest effort compared with the existing solution for the identified needs?"

TO CONCLUDE

Strategic analysis provides guidelines to coordinate public policy in the support of innovative investment, and structural measures to address the challenge of large new public and consumers mass markets of ICT products and services for ageing well. Although an increasing number of products and services are already available, the key words remains to harness technology to old customer needs, to share initiatives to anticipate better to old customers' needs, to bridge generation gaps and spread technical skills at all level of the value chain with reliable information and training for all customers, including old end users.

References

1. European Commission. Growing the Silver Economy in Europe. September 23th 2014 expert meeting. <http://ec.europa.eu/digital-agenda/en/news/growing-silver-economy-europe-brussels-23-september-2014-900-1630-save-date>; retrieved August 3, 2014
2. Ambient Assisted Living (AAL) Joint Programme: ICT for ageing well; www.aal-europe.eu/; retrieved August 3, 2014
3. Horizon 2020: The EU Framework Programme for Research and Innovation: Section Health-Demographic change and Wellbeing; <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/health-demographic-change-and-wellbeing>; retrieved December 6, 2014

Europe's silver economy

4. Bank of America, Merrill Lynch. The Silver Dollar–Longevity Revolution Primer; 2014; <http://68.181.146.96/geroNEWSPOSTS/TheSilverDollar-LongevityRevolutionPrimer.pdf>; retrieved August 3, 2014
5. Lancement de la filière de la Silver Economy [Launching the sector Silver Economy]. April 25, 2013; <http://www.redressement-productif.gouv.fr/lancement-de-la-filiere-silver-economy>; retrieved August 3, 2014
6. United Nations. World Population Ageing 1950-2050; <http://www.un.org/esa/population/publications/worldageing19502050/pdf/001world.pdf>; retrieved August 3, 2014
7. New Waves of Growth: Unlocking opportunity in the multi-polar world. Accenture Institute; 2011; www.accenture.com/SiteCollectionDocuments/PDF/Accenture_Institute_High_Performance_New_Waves_of_Growth.pdf; retrieved August 3, 2014.
8. theMatureMarket.com: Seniors & Boomers Markets World Wide; www.thematuremarket.com/SeniorStrategic/index.php; retrieved August 3, 2014
9. LeMarchedesSeniors.com. Portail du Marché des Seniors et Silver Economie depuis 2003 [Seniors and Silver Market Economy portal since 2003]; http://www.lemarchedesseniors.com/Strategie_Marketing/index.php; retrieved August 3, 2014
10. Bouma H. Gerontechnology: Fundamentals. ISG Masterclass. Nice:SFTAG; 2013
11. CompanionAble: Integrative Cognitive Assistive & Domatic Companion Robotic Systems for Ability and Secutity; www.companionable.net; retrieved August 3, 2014
12. QuoVADis; 2008-2010; <http://quovadis.ibisc.univ-evry.fr>; retrieved August 3, 2014
13. Byk C. Robots and men? Foreword. *Journal international de bioéthique* 2013;24(4):11,13
14. Hopes platform; www.aal-europe.eu/projects/hopes/; retrieved August 3, 2014
15. Venkatesh V. Technology Acceptance Models; www.vvenkatesh.com/it/organizations/theoretical_models.asp; retrieved August 1, 2014
16. European Commission. 7th Framework Programme (FP7) 2007-2013. e-Inclusion Strategic Objectives. CORDIS database; <http://cordis.europa.eu/ist/so/einclusion/home.html>; retrieved December 6, 2014
17. Pôle domotique de Guéret: les collectivités font le pari de l'avenir!; 2011; www.projetdeterritoire.com/index.php/Les-ressources/Les-enjeux-du-vieillissement/Pole-domotique-de-Gueret-les-collectivites-font-le-pari-de-l-avenir; retrieved August 3, 2014
18. Bouwhuis DG, Meesters LMJ, Sponselee AAM. Models for the acceptance of tele-care solutions: Intention vs behaviour. *Gerontechnology* 2012;11(1):45-55; doi:10.4017/gt.2012.11.01.007.00
19. Ambient Assisted Living Joint Programme: ICT for ageing well. Call 4: ICT based solutions for Advancement of Older Persons' Mobility. 2012; www.aal-europe.eu/call-4/; retrieved December 6, 2014
20. Tetard F, Collan M. Lazy User Theory: a dynamic model to understand User selection of products and services. HICSS '09; 42nd Hawaii International Conference on System Sciences 2009; doi:10.1109/HICSS.2009.287
21. The Markulla Center for applied ethics guideline. Santa Clara University, San José; www.scu.edu/ethics/; retrieved August, 2014