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Imparting digital skills to people aged 55 years and over in the UK

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Please contact **Professor Shailey Minocha**, shailey.minocha@open.ac.uk for any feedback, queries and comments. Thank you.

*...**digital competence** is to be understood as the set of knowledge, attitudes and skills needed to take an active part in digital environments and to reap the benefits of technologies for everyday life. It is a basic competence for lifelong learning and can be considered as a continuum, ranging from partial digital inclusion to mastery at professional level. The digital competence of individuals depends on each person's needs, interests, and context, and has therefore to be adapted to those. Digital competence depends as well on technological availability and users' adoption practices, therefore its detailed definition is likely to change over time. As a consequence, being digitally competent means to be able and willing to keep abreast with new technological developments and practices.*

DIGCOMP: a framework for developing and understanding digital competence in Europe, <http://www.openeducationeuropa.eu/en/article/DIGCOMP%3A-a-Framework-for-Developing-and-Understanding-Digital-Competence-in-Europe> [accessed 10 August 2015]

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Executive Summary

This research has been conducted by The Open University, UK and has been inspired by the authors' association with Age UK Milton Keynes. Our aim has been to present a case for imparting digital skills to people aged over 55 years of age, and to present strategies, which partnerships of academic institutions, businesses, and organisations in the voluntary sector (e.g. Age UK, Carers UK) could take forward.

People aged over 55 years are the most digitally unskilled in the UK. This group includes: people in late middle age/early old age' (c. 55 - 65 or state pension age), people in their 'third age' (65 or state pension age - 79) and 'fourth age' - 80-85 and over. Being digitally included for people aged 55 and over has many benefits: being employed or employable, improved quality of life by utilising online social networks to combat loneliness and isolation, empowerment as consumers, volunteering opportunities, and greater civic participation.

The group of 55 years of age and over is normally not recognised as being significant for the workforce and the economy. However, as per the PwC's Golden Age Index report, 2015, if UK could boost its employment rate for workers aged 55-64 which is currently 50% to the level achieved by Sweden, the best performing EU country where 69% of the people in this age group are still working, then it would boost Britain's GDP by 5.4% or £100 billion. This would also help to meet the fiscal costs of UK's ageing population because tax revenues would pick up, and welfare payments would fall. However, the group aged 55-65 are at the most risk of losing jobs in the current technology transformation of the workforce as the lack of ICT skills is highest in this group (OECD, Digital Economy report, 2014).

Older people are not a homogenous group and are as disparate and varied as the broader population. Their motivations and requirements for being online may vary with their age, but also with their employability, physical capacity, ability, and outlook to life. Thus, it would be useful to think about different strategies to address the digital skills gap linked to the life course and physical capacity of individuals rather than their age alone. Some of our recommendations include:

- the need for more robust evidence for the efficiency and effectiveness of digital inclusion initiatives for their sustainability, cost-effectiveness, and their impact;
- design of evidence-based training initiatives for digital inclusion of older people;
- highlighting the significance of digital skills training of the ageing workforce;
- aiming for digital competence in training initiatives so that people develop skills along with knowledge and attitudes – so that they can apply what they have learned to other emerging technologies, contexts, devices and platforms;
- inter-generational digital inclusion initiatives;
- improving and extending partnership working with the voluntary sector such as Age UK and Carers UK;
- Continuing Professional Development (CPD) programme(s) for senior managers on providing support to the older workforce (including carers and disabled people);
- online learning programmes and/or certification for designers/content developers - training them on the accessible (inclusive) design of online services (including websites, smart phones or mobile interfaces) and smart spaces for an ageing society.

1 Introduction

Digital skills are necessary life skills and are critical for life in today's digital and knowledge society. Whether it is finding a job or being able to perform effectively at work, finding deals for insurance or energy, discovering places to visit for leisure and holiday, or maintaining contact with friends and relatives, being online improves people's lives.

This report focuses on the significance of gaining digital skills for people aged 55 and over, and proposes solutions towards imparting digital skills and enhancing the digital competence of older people.

The group of over 55 years of age includes: people in late middle age/early old age' (c. 55 - 65 or state pension age - SPa), people in their 'third age'¹ (65 or SPa - 79) and the older people in their 'fourth age' - roughly 80-85 and over. Older people are not a homogenous group and are as disparate and varied as the broader population. Their motivations and requirements for being online may vary with their age, but also with their employability, physical capacity, ability, and outlook to life. Thus, it would be useful to think about different strategies to address the digital skills gap linked to the life course and physical capacity of individuals rather than their age alone.

In this report, the term 'older people' implies people aged 55 years and over.

The evidence identified, however, that digital inclusion ... was a persistent problem in the UK - specifically, for those with disabilities, older people and those from lower socio-economic backgrounds².

¹ OpenLearn, The Third and Fourth Ages, <http://www.open.edu/openlearn/health-sports-psychology/health/health-studies/the-third-and-fourth-ages> [accessed 10 August 2015]

² Make or Break: The UK's digital future, House of Lords Select Committee on Digital Skills Report of Session 2014-15, <http://www.publications.parliament.uk/pa/ld201415/ldselect/lddigital/111/111.pdf> [accessed 10 August 2015]

2 Definitions

This section lists the key definitions that are relevant for the contents of this report.

Digital skills: Go ON UK's basic digital skills definition includes³: managing information, communicating, transacting, problem-solving and creating.

Digital literacy: Digital literacy represents a person's ability to perform tasks effectively in a digital environment.

Digital literacy includes the ability to find and use information (otherwise known as information literacy) but goes beyond this to encompass communication, collaboration and teamwork, social awareness in the digital environment, understanding of e-safety and creation of new information. Critical thinking and evaluation underpin both digital literacy and information literacy⁴.

In the European Commission working paper (European Commission, 2008) digital literacy was defined as:

"the skills required to achieve digital competence. It is underpinned by basic skills in ICT and the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet".

The definition indicates that digital literacy comprises of basic ICT (Information and Communications Technology) skills, which lead to digital competence⁵.

The Open University (OU), UK takes the Jisc definition of digital literacies⁶ as its guideline:

"the capabilities which fit someone for living, learning and working in a digital society".

Digital competence: Digital competence involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication. It is underpinned by basic skills in ICT: the use of computers to retrieve, assess, store, produce, present and exchange information, and to communicate and participate in collaborative networks via the Internet⁵.

³ Go ON UK, Basic digital skills definition, <http://www.go-on.co.uk/basic-digital-skills/>; also see: <http://www.go-on.co.uk/wp-content/uploads/2015/01/Basic-Digital-Skills-Table-CG.pdf> [links accessed 10 August 2015]

⁴ The Open University's Digital and Information Literacy Framework, <http://www.open.ac.uk/libraryservices/subsites/dilframework/> [accessed 10 August 2015]

⁵ DIGCOMP: a framework for developing and understanding digital competence in Europe, <http://www.openeducationeuropa.eu/en/article/DIGCOMP%3A-a-Framework-for-Developing-and-Understanding-Digital-Competence-in-Europe> [accessed 10 August 2015]

⁶ Developing student's digital literacy, <http://www.jisc.ac.uk/guides/developing-students-digital-literacy> [accessed 10 August 2015]

European Union (EU) projects define digital competence as follows: Digital competence is the set of knowledge, skills, attitudes (thus including abilities, strategies, values and awareness) that are required when using ICT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, participation, learning, socialising, consuming, and empowerment (see Figure 1)⁷.

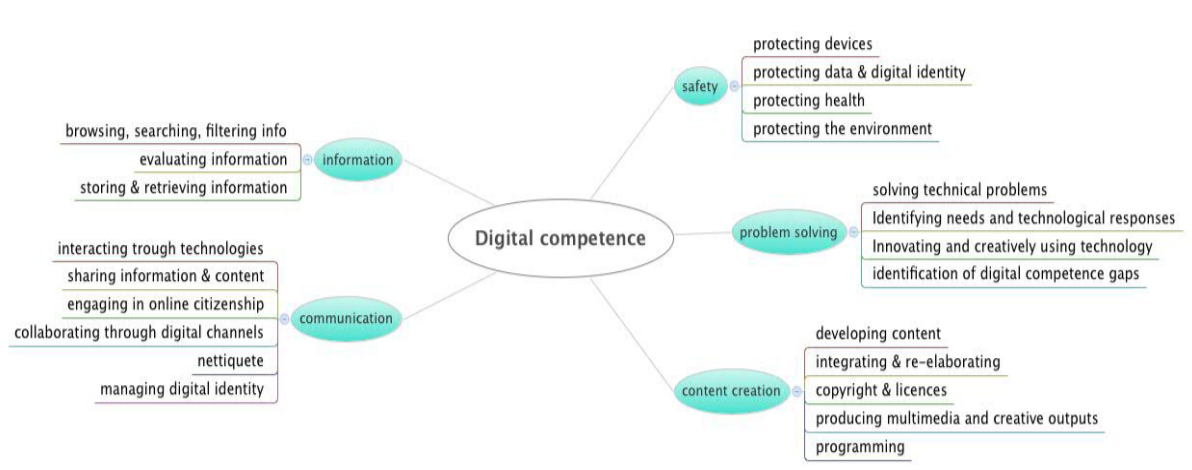


Figure 1: DIGCOMP: a framework for developing and understanding digital competence in Europe⁵

According to Larraz (2013)⁸, digital competence requires the presence of four literacies: a) *information literacy*, for managing digital information; b) *computer literacy*, for treating data in different formats; c) *media literacy*, for analysing and creating multimedia messages; and d) *communication literacy*, for participating in a safe, ethical and civic manner from a digital identity.

Digital inclusion: Digital inclusion, or rather, reducing digital exclusion, is about making sure that people have the capability to use the internet to do things that benefit them day to day - whether they be individuals, Small and Medium Enterprises (SMEs) or voluntary, community and social enterprises (VCSEs). Digital inclusion is about having the right access, skills, motivation and trust to confidently go online.

⁷ Digital competence in practice: An analysis of frameworks, <http://www.ifap.ru/library/book522.pdf> [accessed 10 August 2015]

⁸ Digital Competence in the Knowledge Society, http://jolt.merlot.org/vol11no1/Gallardo-Echenique_0315.pdf [accessed 10 August 2015]

3 Significance for people aged over 55 years to gain digital skills

Being digitally included for people aged 55 and over has many benefits including employability, learning new skills and technologies, utilising social networks to combat loneliness and isolation, being 'empowered' consumers, and having greater civic participation.

In this section, we have outlined statistics and evidence from recent reports that emphasise the significance for people aged over 55 years to gain digital skills.

Ageing of UK's population: The population of the UK is ageing⁹. For example, the number of people of aged 65 and over is projected to increase by 23 per cent from 10.3 million in 2010 to 12.7 million in 2018, and 16.9 million by 2035, which will account for 23 per cent of the total population.

Older workers are vital for the future of the economy: Reducing the outflow of older workers could help employers retain valuable skills and experience and reduce inefficiencies associated with filling vacancies and training new staff. Older people are going to form an increasing proportion of the working-age population - 32 per cent by 2020 compared to 26 per cent now - so employing (and retaining) older people will be crucial¹⁰.

The 7.5 million skills gap

Between 2012 and 2022, an estimated 12.5 m jobs will be opened up through people leaving the workforce and an additional 2 m new jobs will be created, yet only 7 m new younger people will enter the workforce to fill these jobs. Therefore, recruiting and retaining older workers is important for businesses¹¹.

Increasing the employment rates for workers aged 55-64 to boost Britain's GDP: The report - PwC's Golden Age Index, 2015¹² states that if UK could boost its employment rate for workers aged 55-64 which is currently 50% to the level achieved by Sweden, the best performing EU country where 69% of the people in this age group are still working, then it would boost Britain's GDP by 5.4% or £100 billion. This would also help to meet the fiscal costs of an ageing population because tax revenues would pick up and welfare payments would fall. This would free up

⁹ Population ageing: statistics. By Tom Rutherford. SN/SG/3228, <http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN03228> [accessed 10 August 2015]

¹⁰ Fuller working lives – Background evidence, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/319948/fuller-working-lives-background-evidence.pdf [accessed 10 August 2015]

¹¹ The Missing Million: Pathways back to employment, <http://www.bitc.org.uk/our-resources/report/missing-million-pathways-back-employment> [accessed 10 August 2015]

¹² PwC Golden Age Index How well are OECD economies adapting to an older workforce? June 2015, <http://www.pwc.co.uk/assets/pdf/PwCGoldenAgeIndex-June2015.pdf> [accessed 9 August 2015]

funds that could be allocated to areas such as long-term health, social care and state pension costs of an ageing population.

There are many things we could do to engage older workers and encourage them to stay within the workforce for longer – more flexibility, job redesign and career breaks, to name a few. Too often, training, promotions and performance management tends to tail away once a worker turns 50, so it's hardly surprising that those that can afford to retire are longing for the day¹³.

Boheim (2014)¹⁴ has shown that early retirement does not create more job opportunities for the young. Instead, he has found that:

- There is no trade-off in the employment of young and old workers: Higher employment for older workers coincides with higher employment for younger workers.
- Increasing the retirement age increases younger workers' wages. Increasing effective retirement ages and policies to foster employment of older workers are likely to support the employment of both older and younger workers.
- Younger and older workers are complements for each other rather than substitutes.

Businesses can gain from employing older workers. Businesses who make better use of the skills and experience of older workers could gain a competitive advantage at a time when their customer bases are also ageing. However, in order to do this, businesses will need to be flexible in areas such as job design, invest in training in digital skills for older workers and tailor employment reward packages to make staying in work an attractive proposition. People working for longer will have more income to spend, and this extra spending will feed through into increased demand for labour to produce the additional goods and services that the older workers want to buy.

...today's 50+ workforce is adding value by exhibiting traits that are highly sought after in today's economy, including experience, maturity and professionalism, a strong work ethic, loyalty, reliability, knowledge and understanding, and the ability to serve as mentors¹⁵.

...the prevalence of early labour market exit – leaving work before SPA – is a major concern for older workers. Some 3.4 million people aged 50-64 were economically inactive at the end of 2014, In addition to affecting individuals' personal aspirations and wellbeing, this early exit has significant implications for both public and personal finance¹¹.

¹³ The power of the part-time pensioner, June, 2015, http://pwc.blogs.com/the_people_agenda/2015/06/the-power-of-the-part-time-pensioner-.html [accessed 9 August 2015]

¹⁴ Rene Boehm, The effect of early retirement schemes on youth employment, <http://www.capx.co/external/delayed-retirement-can-reduce-youth-unemployment/> [accessed 10 August 2015]

¹⁵ A Business Case for Workers Age 50+: A Look at the Value of Experience 2015, <http://www.aarp.org/research/topics/economics/info-2015/business-case-older-workers.html> [accessed 9 August 2015]

But perhaps what we all need is a change in the way we think. How can businesses use the valuable skills and experiences of older workers? And does retirement really have to be a one-time, off-the-cliff event? At PwC we talk a lot about how diversity has the power to drive innovation and productivity – and generations working together and learning from each other is a prime example of that¹³.

Use of the internet in UK and among people aged over 55: In first quarter of 2015¹⁶: Of the 5.9 million adults in the UK who had never used the internet in quarter 1 (January to March 2015), 760, 000 were between 55-64, 1.5 million between 65-74, and 3.0 million aged 75 years and over. Although recent internet use is notably lower in the older age groups, the proportion of adults aged 75 years and over who had never used the internet, decreased from 76% in quarter 2 (Apr to June) 2011 to 61% in quarter 1 (Jan to Mar) 2015.

Lapsed users aged 75 years and over: Adults aged 75 years and over also had the highest rate of lapsed internet users in quarter 1 (Jan to Mar) 2015 at 6%, compared with 0.3% of adults aged 16 to 24 years. This suggests that, although more adults aged 75 years and over are becoming internet users, they are not necessarily continuing to use the internet¹⁶.

Digital skills of older workers in the internet economy: As per the data from the OECD's Programme for the International Assessment of Adult Competencies (PIAAC)¹⁷: the demographic factors most commonly associated with a lack of core skills and no computer experience are people aged 55-65, people with less than an upper secondary level of education, and people in semi-skilled occupations. This lack of digital skills in the adult population is of particular concern to policy makers because this group is at the most risk of losing jobs in the current technology transformation of the workforce.

The 2014 report, Digital skills for tomorrow's world¹⁸, has highlighted the relationship of an ageing workforce and the need to improve its digital skills:

If we want to make sure that people can remain in the workforce for longer, they will increasingly need to improve their digital skills at all levels. These problems are often concentrated amongst those already in work. For example, a September 2011 CBI report on the needs of the Creative Industries stated¹⁹ that 66% of firms reported problems with IT

¹⁶ Internet users, 2015, <http://www.ons.gov.uk/ons/rel/rdit2/internet-users/2015/stb-ia-2015.html> [accessed 10 August 2015]

¹⁷ OECD (2014), Skills and Jobs in the Internet Economy, *OECD Digital Economy Papers*, No. 242, OECD Publishing. <http://dx.doi.org/10.1787/5jxvbrjmg9bns-en> [accessed 10 August 2015]

¹⁸ Digital skills for tomorrow's world, July 2014, <http://www.ukdigitalskills.com> [accessed 10 August 2015]

¹⁹ CBI, *Skills for the Creative Industries*, 4-5, 2011, <http://www.cbi.org.uk/media/1055419/2011.09-cbi-creative-skills-brief.pdf> [accessed 10 August 2015]

skills, problems which are "likely to be concentrated amongst older workers". Many future job vacancies will be filled by people already in the workforce.

The AARP study¹⁵ states:

...according to an AARP survey, the majority of workers age 50+ are interested in training opportunities to stay abreast of technological advances and do not feel that they have trouble keeping up with the new technology needed for their job.

Digital literacy is particularly important for people aged from 55 to SPa. Without digital skills they are likely to find it difficult to remain in employment (probably resulting in redundancy) in key sectors, or to perform their current roles effectively, or to find a new job. Older workers are more likely to be made redundant when compared to those aged between 24-49. The probability of finding a job for someone who has been made redundant in their 50s or over is less than younger groups of people and is more likely to be unemployed for longer²⁰. 47.2% of people aged 50+ and unemployed have been out of work for 12 months or more²¹. This is in contrast to 34.3% of all UK adults¹¹.

In the EU²²: Digital skills will be required by 90% of all jobs across all sectors in 2020. There will be up to 900,000 unfilled ICT vacancies in 2020.

Digital skills for digital transformation and digital leadership: Digital transformation involves conceptualising digital technologies into business value - to radically improve performance in an organisation both externally and internally. Business leaders (and employees, including those in SMEs and VCSEs) are under increasing pressure to understand and adopt digital advances: such as data analytics, cyber-security²³, social media, social collaboration tools, 3D and virtual reality interfaces, cloud computing, internet of things and smart devices to enhance customer relationships, internal processes, and value propositions for conducting business nationally and internationally²⁴. Building digital skills is, therefore, critical –

²⁰ Age UK's Economic Tracker: many in their early 50s fear losing their home, <http://ageukblog.org.uk/2013/08/09/age-uks-economic-tracker-many-in-their-early-50s-fear-losing-their-home/> [accessed 10 August 2015]

²¹ UK unemployment: Plan to help over-50s keep working, <http://www.bbc.co.uk/news/uk-30559219> [accessed 9 August 2015]

²² Supporting digital skills as a necessary competence in the workforce of the future (November 2014), http://www.media-and-learning.eu/sites/default/files/presentations/HA_Thu20_09.00_Van den Brande.ppt [accessed 10 August 2015]

²³ The Millennial Security Risk, <http://www.esecurityplanet.com/mobile-security/the-millennial-security-risk.html> [accessed 9 August 2015]

²⁴ Digital Business Leaders Urgently Required, <http://energise2-o.com/2014/05/07/digital-business-leaders-urgently-required/> [accessed 9 August 2015]

for the leadership in an organisation and for entire workforce²⁵ for the desired business outcomes of innovation, productivity and agility²⁶.

Charity sector: Volunteering or being (part-) employed in the charity sector is one of the key activities that older people are involved with after retirement²⁷. As per the Lloyd's UK Business Digital Index 2015 report²⁸, 58% of charities surveyed are still lacking basic digital skills. Charities at the lowest end of the digital skills spectrum reported an increase in doubts as to how websites or social media could help increase their funding. If volunteers and employees in the charity sector were digitally competent, they would be able to accelerate digital transformation, which is vital for the sustenance of charities.

Online learning: Without digital skills, older people within the employable age or otherwise can't make use of online learning resources such as open educational resources (OERs) for gaining new skills or for lifelong learning opportunities, or to remain socially engaged and intellectually stimulated. Learning opportunities such as through OERs such as OU's Open Learn²⁹ and Massive Open Online Courses (MOOCs)³⁰ can increase workforce skills, improve employability, contribute to better mental health and wellbeing³¹ along with providing opportunities to communicate online with other learners (e.g. through discussion forums). Working longer helps to reinforce individual financial wellbeing and may also have a positive influence on overall wellbeing.

In the 2015 AARP report¹⁵:

Moreover, interest by adults age 50+ in learning new skills and in growing their careers presents opportunities for greater exposure to—and willingness to try—new technology. For example, out of the 12,000 U.S. students who enrolled and completed a full lecture in a

²⁵ MBA Careers: Business Seeks Tech-Savvy Leaders For Digital Transformation, July 2015, <http://www.businessbecause.com/news/mba-careers/3379/mba-careers-digital-transformation> [accessed 9 August 2015]

²⁶ Being Digital, Embrace the Future of Work and Your People will Embrace it with You, <http://www.slideshare.net/colinsloman/accenturebeingdigitalworkforce2015report> [accessed 9 August 2015]

²⁷ Older people and volunteering, <http://www.royalvoluntaryservice.org.uk/our-impact/what-we-think/older-people-and-volunteering-policy> [accessed 9 August 2015]

²⁸ UK Business Digital Index 2015, March 2015, <http://resources.lloydsbank.com/insight/uk-business-digital-index/> [accessed 9 August 2015]

²⁹ The home of free learning from The Open University, <http://www.open.edu/openlearn/> [accessed 10 August 2015]

³⁰ **MOOCs** are freely accessible and open-licensed short courses, delivered to large cohorts of learners fully online. FutureLearn is hosted by The Open University and offers a number of MOOCs: <https://www.futurelearn.com> [accessed 10 August 2015]

³¹ "If you could do one thing..." Nine local actions to reduce health inequalities, http://www.britac.ac.uk/policy/Health_Inequalities.cfm [accessed 10 August 2015]

Massive Online Open Course (MOOC) offered by the University of Pennsylvania, 39% were over age 50³².

The 2015 NIACE Adult Participation in Learning Survey found that³³:

In general, the older people are, the less likely they are to take part in learning ... Ninety-one per cent of 17–19 year olds and 67% of 20–24 year olds are learning compared with around two-fifths of the rest of the working age population. The decline in participation is particularly steep for those aged 55 and over, with only 31% of those aged 55-64, 20% of those aged 65-74 and 12% of those aged 75+ regarding themselves as learners.

Chief Executive of NIACE, David Hughes said³⁴:

"We are pretty worried about the digital area of learning, if you look at the number of people who never got any digital skills, it's dominated by older people.

"Any low numbers of participation are worrying, then you start thinking about the technological changes in the workplace and about the people in that age group not being able to even access government services online."

"Our current economic challenges combined with an ageing population mean people will have extended working lives, learning throughout, which has never been more important."

Finding new jobs: 25% of job opportunities are now advertised solely online³⁵; so, job seekers without online skills aren't able to access and therefore apply for a quarter of all available jobs, putting themselves at a huge disadvantage.

E-government services: With central and local government services increasingly being 'Digital by default', it is imperative that people over 55 years of age and their carers have the necessary digital skills to access and make use of e-government services (e.g. pensions, home help, home care, residential care, public housing, blue badge application, bus pass, and so on).

E-commerce can bring substantial gains to consumers, through increased choice and better prices – whether it is energy prices, or buying insurance, or paying for holidays.

Healthcare delivery is being transformed by technology – for example, booking appointments online, asking for repeat prescriptions, accessing health information, using health-monitoring technologies (such as mobile Apps) and technologies for

³² Alcorn, Brandon, Gayle Christensen, and Ezekiel Emanuel. "Who Takes MOOCs? For Online Higher Education, the Devil Is In the Details"; survey results published in New Republic, January 4, 2014.

³³ 2015 Adult participation in learning survey, <http://www.niace.org.uk/our-resources/promoting-learning-and-skills/2015-adult-participation-learning-survey> [accessed 10 August 2015]

³⁴ Concerns over older people's IT skills, <http://www.bbc.co.uk/news/education-33098861> [accessed 10 August 2015]

³⁵ Online jobs report, Tinder Foundation, <http://www.tinderfoundation.org/our-thinking/research-publications/online-jobs-report> [accessed 10 August 2015]

rehabilitation. However, many older people lack the skills to access these services. As more applications are being developed to address impairments such as those related to dexterity, auditory and healthcare needs, it is imperative that older people (and their carers who could be old too) are trained and supported to use technologies so that they can lead connected and yet independent lives.

Influence on the quality of lives of people aged 55 years and over: Digital Unite³⁶ research has shown that of those people over 55 who are using the internet, four out of five (86%) said it had improved their lives. 72% said that being online had helped reduce their feelings of isolation and 81% said that using the internet made them feel part of modern society. In addition 20% of older learners in a Digital Unite social housing learning programme felt their understanding of health-related issues had improved as a result of being online.

Social inclusion: Digital inclusion leads to social inclusion³⁷, and with a positive effect on the wellbeing of the people involved. Social isolation and loneliness among older people are recognised as a national problem across the UK³⁸, with a need for consideration within local strategies for older people (Minocha, *et al.*, 2015). In fact, social isolation and loneliness are regarded as public health issues because of their known adverse effects on physical (e.g. cardiovascular health, infectious illness), mental health (Steptoe, *et al.*, 2013) including depression and cognitive decline (Cacioppo and Cacioppo, 2013), and reduced wellbeing³⁹. Health risks⁴⁰ associated with social isolation have been compared with the well-known detrimental effects of smoking and obesity⁴¹.

"Current evidence indicates that heightened risk of mortality from a lack of social relationships is greater than that from obesity...with the risk from social isolation and loneliness (controlling for multiple other factors) being equivalent to the risk associated with Grades 2 and 3 obesity". (Holt-Lundstad et al., 2015)

³⁶ Digital Unite, <http://digitalunite.com> [accessed 10 August 2015]

³⁷ Internet training would cut pensioner loneliness, says think tank, <http://www.bbc.co.uk/news/uk-27577143> [accessed 10 August 2015]; also, see: 10 ways to help older people use the internet, <http://www.telegraph.co.uk/technology/internet/11200872/10-ways-to-help-older-people-use-the-internet.html> [accessed 10 August 2015]

³⁸ Campaign to end loneliness (videos), <https://vimeo.com/endlonelinessuk> [accessed 10 August 2015]

³⁹ Why does lonely make you ill? <http://www.bbc.co.uk/news/health-21517864> [accessed 10 August 2015]

⁴⁰ Loneliness: a threat to health, <http://www.campaigntoendloneliness.org/threat-to-health/> [accessed 10 August 2015]; also, see: Our National Shame: Older people and loneliness, <http://blogs.bmj.com/ebn/2014/09/28/our-national-shame-older-people-and-loneliness-by-nova-corcoran-university-of-south-wales-novacorks-calvin-moorley-london-south-bank-university-calvinmoorley/> [accessed 10 August 2015]

⁴¹ Loneliness twice as unhealthy as obesity for older people, study finds, <http://www.theguardian.com/science/2014/feb/16/loneliness-twice-as-unhealthy-as-obesity-older-people> [accessed 10 August 2015]

Online social interactions for people aged over 65 years: Getting online for older users will facilitate contact with families and friends through Skype and social networking tools. Indeed, as and when increasing frailty or other life changes start to impact on people's quality of life, whether living at home or in sheltered housing or in a care home, online social interactions could help to overcome potential isolation.

I think for people at a point of change in their life where either their mental/physical health has changed or they have undergone bereavement. We have an opportunity there to really look at usefulness. What was I doing before that made me useful in society? How did I use my skills? And now things have changed, what can I do now? [an older person reflecting on the issue of social isolation in old age in a workshop at the OU]

Our research (Hartnett *et al.*, 2013; Minocha, 2013) shows that online social interactions enable older people to sustain or even improve quality of life and wellbeing: for example, they feel less socially isolated and remain connected with their family⁴²; they are able to renew and forge friendships; and that they have a 'voice'; and are able to share their skills and knowledge with others.

I wish some of these groups [referring to local groups] could help older people with learning how to use a computer. Even if you can't do much on it, it's very useful if you are house bound. If I can't get out and want some shopping, I could do my shopping on a computer.

One of the participants recounted her mother's experiences:

My mum was a bit of a campaigner and she belonged to an NHS [National Health Service] patient forum and they had meetings and they shared a lot of stuff by email ... and when she could no longer get to meetings she could still make a valid input on documents and stuff.

A designer who designs products with and for the older people mentioned how online social interactions can help in overcoming social isolation:

Decreased mobility may lead to older people becoming isolated. Online communities may help. I think a lot of deaf people, particularly people who lose their hearing in older age can become very, very isolated, so it [online interaction] is important.

A 90-year lady who was given an iPad on 89th birthday said:

Oh my God. I have always been like a sponge, trying to learn certain things. Now I need a whole big sponge, because I want to get through to all of these I can possibly get to learn about.

It has been a great change as far as age goes. I really don't have anything to worry about. If it is a rainy day or snow, I know I can go and continue to learn. Let's do it. That is what it has done to my mind. It has opened me even more.

⁴² Internet training would cut pensioner loneliness, says think tank, <http://www.bbc.co.uk/news/uk-27577143> [accessed 10 August 2015]; also, see: 10 ways to help older people use the internet, <http://www.telegraph.co.uk/technology/internet/11200872/10-ways-to-help-older-people-use-the-internet.html> [accessed 10 August 2015]

4 Challenges for people aged over 55 in getting online

These are the challenges that older people face in getting online:

- connectivity or infrastructure - not having the equipment to go online and connect to the internet.
- skills - lack of digital skills to use the internet.
- training - not knowing where to start and which technology to use, not having access to training and technical support.
- cost - poverty, lower wages or unemployment may make them unable to afford technology (including access to assistive technologies, if required), or ongoing network fees.
- trust or confidence - fear of the unknown; fear of using the technology and scared that they will lose information; fear of crime and internet fraud; fear of privacy or reputation; overwhelmed by the volume of information that is available.
- motivation - not realising the value or relevance of accessing the internet to their everyday lives - the social and financial benefits, or benefits to health and well-being, or not being interested; concern that they would lose face-to-face interactions with family and friends.
- accessibility in terms of disabilities - the technology (e.g. websites, mobile phone interfaces) has not been designed to enable people with disabilities to use them, or the technology cannot support the use of assistive technologies such as screen readers or speech recognition software or Braille software that people may require to access digital services.
- lack of technical support - it can often be that the older person is unable to access help when having problems with their computer at home and this can lead to them giving up at an early stage.
- training requirements – our research with people over 65 years (Hartnett, et al., 2013) has shown that one-off training on using the computer and internet does not suffice. Rather, relatives, peers and trainers need to structure their help over a period of time teaching one application at one time and which is related to the older user's interests and using repetitive strategies to aid retention.

In **Table 1**, the key digital skills requirements and the nature of training for different age groups in people aged over 55 years are outlined.

Table 1: Digital skills requirements and nature of training for people aged over 55 years

Dimension	55 years-SPa (State pension age) 'late middle age/early old age'	SPa-79 years, third age,	80 years and above, the fourth age
(Key) digital skills requirements	re-skilling training for the current job/re-employment accessing e-government services using healthcare technologies or accessing online health resources making use of e-learning resources/online training developing and maintaining a digital footprint: online reputation: digital identity, digital etiquette, digital professionalism training to become 'digital champions' training to become online moderators preparing for digital transformation and innovation in organisations: expertise in social media, cloud computing, internet of things, big data and data science/analytics, cyber-security and mobile computing	leisure, travel, holidays accessing e-government services using healthcare technologies or accessing online health resources personal privacy and security developing and maintaining an online identity (digital footprint) training around their interests and hobbies training to become 'digital champions' training to become online moderators online social interactions with family and friends	'basic' digital skills training around their interests and hobbies use of e-government services directly or by proxy using healthcare technologies or accessing online health resources online social interactions with family and friends
Nature of training for gaining digital skills	CPD, paid courses, MOOCs, employer-based training	MOOCs, OERs, e-learning platforms	Face-to-face support, telephone support, regular and ongoing support

Table 1 shows how the digital skills requirements and the training may vary across the different age groups within the older people including carers. However, there is a lot of variety amongst the different age groups depending upon personal circumstances (e.g. job situation), their skills and backgrounds (e.g. nature of jobs, education/qualifications), and their physical and mental health. So, it is quite possible that an individual from the construction industry, who may have taken early retirement, may have digital skills requirements for re-training for a desk-job, while

a stroke survivor within the SPa may be looking to gain digital skills to keep up with their interests, online learning and social contacts. Therefore, the training requirements in each of these age groups will differ based on their situation: for example, they may have no basic digital skills, or they may be looking to improve digital skills for their current roles at workplace, or maintaining digital skills and keeping up with the new technologies and innovations, or leading their organisations towards digital transformation, or seeking employment, for changing careers, for flexible and remote-working, living alone and/or having no family support for training, or having disabilities or age-related impairments.

5 Key recommendations

In this section, we discuss some action points towards imparting or improving the digital skills of people aged over 55 in the UK including those that have disabilities – age-related, or otherwise - and partnerships of academic institutions, businesses, and organisations in the voluntary sector (e.g. Age UK, Carers UK) could possibly take forward.

Environment scanning of the existing initiatives: Over the last few years, a number of initiatives on digital inclusion of older people have been carried out in the UK. However, some of these initiatives (especially the local ones) end when the short-term funding is over, and the current evidence base is not thorough enough to demonstrate the long-term impact and about whether/how these initiatives could have been made sustainable. There is a need for methodologically rigorous evidence from evaluation of specific services and from meta-analyses of small-scale studies or papers that are available to determine what are the most suitable ways for digital inclusion of older people.

Developing an impact evaluation toolkit for digital inclusion initiatives: There is a need for more robust evidence for the efficiency and effectiveness of digital inclusion initiatives for their sustainability, cost-effectiveness, and to be 'value for money', and, most importantly, on the positive impact on the physical and mental wellbeing of the older people and other stakeholders (including the volunteers, carers) who are involved. There is a need to objectively assess the short- and long-term impact of these initiatives based on their goals: benefits to individuals and communities, number of people a programme reached, effects on health and wellbeing, opportunities for lifelong learning, employability, career growth, citizenship, community involvement, lessons for future policy and practice, and so on.

An impact evaluation toolkit consisting of qualitative and quantitative methods of data collection, analysis and interpretation (and accompanying guidance) will help towards assessing the changes in the well being of individuals, households and communities - that can be attributed to a particular digital inclusion project, program or policy.

Increase the access to computing equipment and the internet: Private sector organisations may be able to provide support through their Corporate Responsibility programmes within their local communities, such as technology (equipment such as low cost Tablets), access to the internet (broadband) at reduced costs to older people, and leading/funding initiatives in the development of Apps and services catering to the social needs, quality of life and well being of older people.

Improve and extend partnership working with the voluntary sector such as Age UK and Carers UK: These organisations in the voluntary sector have experience (through their large and dedicated volunteer-base) of getting older people online and giving them technical support from time to time. However, it is difficult for them to carry out large initiatives of digital inclusion because of lack of funding/resources.

Their experiences and perceptions of the challenges that older people face in getting online and acquiring digital skills could be an important knowledge-resource in any partnership or project of digital inclusion for older people. Also, working through/ with these organisations will give access to a large volunteer-base who can be trained/re-trained to support the development of digital skills of older people in the local communities.

Jane Palmer, CEO, Age UK, Milton Keynes stated in a recent report (Minocha *et al.*, 2015) of a joint project between OU and Age UK Milton Keynes and for Milton Keynes Council:

Age UK MK has tried to obtain funding for technical home support, whereby a dedicated line would be available for people to call with a problem which could either be sorted out over the phone or an appointment made for a visit. Funders appear to be interested only in the initial training stage. We do have people on the workforce who go out voluntarily to help those who may call but we have no dedicated resource to do this.

Digital skills and digital competence: What constitutes 'basic'³ in terms of digital literacy / digital skills has changed over the years and will continue to change with technological innovations, pervasive nature of online technologies and people's requirements and specialisations that they require. The training on digital skills should be such that there is a shift from teaching how the specific software works but integrate the training within the interests and requirements of people – so, teaching to search on the Web through the family history interest of the individual, or looking for a job, or training on e-government services through application of a European Health Card or a blue badge. Further, instead of the traditional mode of teaching on how specific software works, the training should move towards 'digital competence' where people develop skills along with knowledge and attitudes – so that they can apply what they have learned to other emerging technologies, contexts, devices and platforms.

The training should extend to giving older people guidance on the free (e.g. OERs) and paid training opportunities that are available for re-skilling, or for new 'third age' careers – so, to enhance their knowledge about online learning opportunities and, thereby, improve their employability. The digital skills training should also focus on developing skills for online job search and online self-marketing via developing a digital identity or persona.

Some of OU's resources that could be useful are:

FutureLearn: An Introduction to Cyber Security: <https://www.futurelearn.com/courses/introduction-to-cyber-security> [accessed 10 August 2015]

FutureLearn: Get started with online learning: <https://www.futurelearn.com/courses/online-learning> [accessed 10 August 2015]

Future Learn: Smart cities: <https://www.futurelearn.com/courses/smart-cities> [accessed 10 August 2015].

Highlight the significance of digital skills training of the ageing workforce: It is important for employers to rethink their attitudes to training and development for

older workers, that it does not 'stop at 50'. If the older employees are not trained about online security and data protection issues, it could lead to data or security breaches in an organisation. Online learning opportunities in later life can help adult and older learners to re-skill, gain employment and avoid redundancies.

"Large numbers of older workers have ambitions to improve skills and progress their career. The common perceptions are that there will be cognitive decline and they want to retire," notes Christopher Brooks, senior policy manager at the charity Age UK⁴³.

Sam Pease is the managing director at New Directions. Based in Boston, Massachusetts⁴³:

Most companies, he says, do not invest in training their older employees. Consequently, what happens is that they cling on to their old skills or job because no one helps them figure out an alternative.

MOOC⁴⁴ (or a paid-for online module) on 'Designing individual MOOCs and MOOC platforms for older and disabled students': training for content authors, designers and developers on web accessibility requirements for older and disabled users (Sanchez-Gordon and Lujan-Mora, 2013). There are US MOOCs on web accessibility for educators: 'Web accessibility MOOC for educators⁴⁵ and a Web accessibility MOOC for online educators⁴⁶'. However, the focus on older students/users, the British Standard BS 8878-2010, and developing a MOOC that goes beyond the Web accessibility, and concerns the inclusive design of MOOCs - would make this proposed MOOC distinctive and useful to support the lifelong learning aspirations of older people. MOOCs and MOOC platforms should work with the assistive technologies that older people and disabled students use.

A MOOC on developing social media strategy for digital professionals.

Developing and maintaining an online reputation, digital etiquette, digital professionalism are some of the key topics/issues that would be useful for older users who have fear and apprehension about being online, and who would like to create a reputable digital identity and Web presence. Our research (Minocha and Petre, 2012; Petre *et al.*, 2014) has shown that often people find it difficult to choose an optimal set of tools from the various online and social media tools that are available. This proposed MOOC could include guidance on the choice of fit-for-

⁴³ Working older, Financial Times, 3 July 2015, FT.com [accessed on 4 July 2015]

⁴⁴ **We have used the term MOOC** because of the reach and open nature of these online learning courses. However, the strategies that we have proposed could as well be delivered via face-to-face training programmes, online training programmes within an organisation, or online learning initiatives available on the Web that are open to all.

⁴⁵ Web accessibility MOOC for educators, <https://www.canvas.net/browse/cccs/courses/web-accessibility-mooc-for-educators> [accessed 10 August 2015]

⁴⁶ Web accessibility MOOC for online educators, <https://opencourses.desire2learn.com/cat/course/web-accessibility-7326/> [accessed 10 August 2015]

purpose online tools for developing a professional digital identity and image in the social media era.

"I think they [pictures] tell a lot," says Ms Pigué [associate director of MBA admissions at IMD, who has expertise as a careers consultant]. In a recent LinkedIn profile, she says the individual had chosen a photo of herself on a boat. She appeared to be on vacation rather than a serious jobseeker⁴⁷.

"The whole point around social media is all about building a successful brand," says David Morris, head of corporate sectors in the career services team at London Business School. LinkedIn, he adds, is becoming increasingly important as a recruitment venue⁴⁷.

Dorie Clark, marketing strategy consultant and adjunct professor of business administration at Duke University's Fuqua School of Business in the US states⁴⁸:

At a minimum, every MBA student should have a LinkedIn profile and be active on at least one social channel. You can adapt according to your skills and goals. If you are not a great writer but love public speaking, perhaps you might like to create a video blog, for example.

You can create content on multiple channels but in general it is better to focus on one or two and do them well, rather than spreading yourself thinly across several accounts.

Develop training for senior managers on supporting an ageing workforce: One of the key recommendations that PwC has made to keep older people in the workforce is to increase the re-training of older workers and, particularly, in digital skills⁴⁹.

There are a number of measures we could consider, such as tax rebates for companies that take on older workers, spending more on training older workers (especially with digital skills), and stronger enforcement of age discrimination laws¹².

A proposed set of topics for Continuing Professional Development (CPD) training and development for senior managers in organisations on how to provide support to the older workforce (including carers and disabled people) is:

- digital skills training, re-skilling and developing digital competence
- extending apprenticeships to people of all ages, not just entry-level workers
- enabling older people with disabilities to remain in work by making reasonable adjustments for them – for example, use of assistive technologies
- offering different opportunities by digital level/capability so, for example, someone less comfortable with technology does not need to be embarrassed

⁴⁷ Students find their virtual reputations precede them, Financial Times, 4 May 2014, FT.com [accessed 3 July 2015]

⁴⁸ How to build a positive online reputation, 28 June 2015, Financial Times, FT.com [accessed 28 June 2015]

⁴⁹ Digital skills gaps holding back half of UK firms reveals the Tech Partnership, Insights on developments impacting the digital labour market, <https://www.thetechpartnership.com/news-events/news/employer-insights/> [accessed 10 August 2015]

- enabling older people to move to part-time or advisory roles, where appropriate in their career-paths so as to avoid any possible blockage to the career progression of younger workers
- enabling carers, older people and people with disabilities to find a good work-life balance through flexible and distributed (online) working
- opening up conversations about lifelong learning, and role models for continuous development and career shifts
- setting up inter-generational networks in workplaces for sharing skills and perspectives
- leveraging younger generations to reverse-mentor on digital skills; and
- supporting the move of older workforce into retirement and/or voluntary work.

These are some of OU's OERs that may contribute towards such a training programme.

OpenLearn: Introducing Ageing: <http://www.open.edu/openlearn/health-sports-psychology/introducing-ageing/content-section-o?contandchanfooter> [accessed 10 August 2015]

OpenLearn: Success in the workplace: <http://www.open.edu/openlearn/education/succeed-the-workplace/content-section-overview> [accessed 10 August 2015]

OpenLearn: Using Voluntary work to get ahead in the job market: <http://www.open.edu/openlearn/money-management/management/human-resources/using-voluntary-work-get-ahead-the-job-market/content-section-o> [accessed 10 August 2015]

Careers Advisory service: <http://www2.open.ac.uk/students/careers> [accessed 10 August 2015]

Designing for an ageing population: Whether it is the design of websites or mobile devices such as smart phones and Tablets, or the Apps, it is imperative that businesses recognise the significance of designing for an ageing population. For example, older people face several challenges when using the Web due to diminishing capacities related to ageing: vision decline, hearing loss, and issues related to motor skills and cognition⁵⁰. Online services should be designed in a way that they can be used by anyone regardless of their age and physical characteristics – this has to be standard practice.

⁵⁰ Shirley Evans and Shailey Minocha, E-learning and over 60s: designing for accessibility and digital inclusion, *report under preparation*. Please contact Shailey, shailey.minocha@open.ac.uk for this report.

Breezie and Age UK

'A personalised, intuitive system, specifically designed for people who are less familiar with digital technology. Supplied complete with a Samsung tablet computer, it's the easiest way to get online and stay connected with friends, family and hobbies.'

<http://www.ageuk.org.uk/products/computing-and-phones/breezie---the-internet-made-easy/>

On Facebook: <https://www.facebook.com/getBreezie>

Video: A first look at what Breezie can do for you, <https://vimeo.com/122441486>

Also, see: The Internet is now Breezie for over 65s: <http://www.abilitymagazine.org.uk/Articles/Article-303-3.aspx>; I should be hiring 80 year olds, <http://digitalleaders.co.uk/2015/06/i-should-be-hiring-80-year-olds/> [links accessed 10 August 2015]

MOOC (or a paid-for online module) on guidance for businesses including SMEs and VCSEs on designing and procuring accessible, usable and inclusive technology-based products and services - that address the needs of disabled and older people, but also consider people with low digital skills of any age group⁵¹. In the age group of 55+, people experience age-related difficulties, not necessarily identified as disabilities, but are related to memory, vision, hearing and manual dexterity that could impact on their ability to access the internet and on their motivation to go online.

There are already a well-researched set of accessibility guidelines⁵² and case studies on the design of technology-based products and services to address a wide range of disabilities, which would be useful resources for the content of this proposed MOOC.

Initiatives of digital inclusion that involve different generations, particularly for older people over 65 years: School students and older people could be sharing skills⁵³ - for example, older people will be learning to use the internet and they may be recounting stories related to local history for the school children.

Getting the younger generation more involved, schools to raise awareness for students, most have grandparents who they are usually very fond of and to build on this. ...the younger ones are often surprised how much they have enjoyed it, and find they have a good rapport with the older generation and 'have a good laugh together' (coordinator of a local charity in an OU research workshop; 6 February 2015)

⁵¹ For example, on Register to Vote, the designers iterated the 'date of birth' dropdown several times until they got rid of it altogether.

<https://designnotes.blog.gov.uk/2013/12/05/asking-for-a-date-of-birth/> [accessed 10 August 2015]

⁵² OU's accessibility guidelines, <http://www.open.ac.uk/about/web-standards/standards/accessibility-standards/accessibility> [accessed 10 August 2015]

⁵³ Digital inclusion of seniors through intergenerational support, <http://www.unite-it.eu/profiles/blogs/digital-inclusion-of-seniors-through-intergenerational-support> [accessed 10 August 2015]

Developing guidance on digital skills training for people aged over 65: Unlike younger age groups, people over 65 years of age may not have learned ICT as a part of their formal education and not all older people may have used internet-based services in paid employment. Older people acquire digital skills in later life. As a result the nature and quality of digital skills training and support is critical in supporting older people's development of 'internet self-efficacy' (Hardill and Olphert, 2012). It has been shown that once older people have access to, and acquire the skills to use it, being online can become part of their everyday lives. Zickuhr and Madden (2012) found that 70% of people aged 65+ who had started using the internet stated that they typically use it every day. Internet-based devices and Apps⁵⁴ help older people to keep in contact with family and friends, to keep up with their hobbies, interests and learning and to look after themselves, and for others (family, carers, healthcare staff) to monitor their wellbeing.

Our research (e.g. Hartnett *et al.*, 2013; Minocha, 2013) has shown that older people need an incentive to get and stay online; that relatives and trainers need to structure their help and use repetitive strategies to aid retention; that one-off training on using the computer and internet does not suffice and that older people need access to an on-going local technical support. Training can be provided, whether through formal or informal means, but follow-up is important in order to sustain the use of digital skills among older people.

This guidance on training could be encapsulated into a **MOOC for paid-trainers, volunteers, professionals that work in the social care and health care sector that support older people in sheltered housing and care homes, peers and family members who are involved in enabling getting older people online in their third and fourth ages** (over 65 years; see **Table 1**) and making them confident about their online interactions. It is often recognised that 'digitally able students need digitally able staff working in a digitally enabling organisation'.

There will be a growing need to support older people moving into care when they will bring their own technologies to maintain their online social interactions, and as telecare, technology-assisted living and self-monitoring of health conditions converge and become a reality.

Some of the key messages from our empirical investigations with older people of 65 years and over that could feed into the development of this MOOC are listed below:

- **Older people need an incentive to get and stay online.** So, instead of a standardised training package, the training should be around a specific interest of the older person, such as family history, travel, poetry, brass bands, and so on.
- **One-off training on using the computer and internet does not suffice.** Rather, relatives and trainers need to structure their help over a period of time, teaching one application at a time through task-scenarios related to the

⁵⁴ Apps for People with Disabilities and Older People, http://www.assistireland.ie/eng/Information/Information_Sheets/Apps_for_People_with_Disabilities_and_Older_People.html [accessed 10 August 2015]

older user's interests – similar to the chunking-approach or bite-sized design of OU's Being digital⁵⁵. Also, older people need repetitive strategies to aid retention. Since, older the people are, the more likely they are to need repetition in their learning, so they can easily be left behind at a pace that suits younger age groups. Learning materials aimed at younger age groups can also heighten their sense that courses are not for them.

The pace is also important and the way in which they learn and remember...

I have noted myself the different level of confidence in users during IT training sessions ... and the trainers having to help particular people more, this can cause them some embarrassment! This is not necessarily age related, we all learn at a different pace. [researcher reflecting on her observations of how older people learn digital skills]

- **Older people need access to an ongoing local technical support.** The technical support could relate to accepting software updates, or buying new equipment, or changing the privacy or security settings of social networking software such as Facebook. Fast development of technological advances necessitates the provision of constant support to sustain people's use of digital technology, and to maintain and develop their skills and confidence.

ICT support hubs should be embedded within the community which could offer free, independent, trusted advice in a 'clinic', offering advice on choosing products and software, and supporting learning at various levels. These might include a sponsored mobile hub ('Computer Bus') capable of reaching smaller outlying communities as well as neighbourhoods around the town.

- **Older people prefer learning from one another by sharing knowledge and swapping tips.** Existing community venues such as schools, pubs and shops in the local communities could be used as hubs where older users could help sort out problems and share tips in a relaxed atmosphere.

I think with regards to training the idea of older people learning from each other/sharing knowledge and tips is very important. [researcher reflecting on her observations of how older people learn digital skills]

- **Focus on Tablets and Applications:** As we have made progress in our research on the use of the internet by older people, we have found that older people prefer Tablets because of the ease that Tablets provide⁵⁶. Cognitive load can be a significant barrier in online interactions for people over 55. Tablets have an intuitive interface and so the number of actions needed to access an application such as Skype can be minimal: 'switch tablet on and tap on the App'.

You can sit on a sofa and look through photos or watch programmes on the iPlayer; there are no wires. I don't have to go upstairs to switch on my machine.

⁵⁵The Open University's Being Digital - essential skills for study, work and lifelong learning, <http://www.open.ac.uk/libraryservices/beingdigital/> [accessed 10 August 2015]

⁵⁶Tablets are the best digital medicine, <http://www.telegraph.co.uk/technology/10291561/Tablets-are-the-best-digital-medicine.html> [accessed 10 August 2015]

For printing and word-processing tasks, older people (like other computer users) prefer desktops or laptops but for browsing on the internet or for connecting on video conferencing tools such as Skype (<http://www.skype.com/en/>) or FaceTime (<https://www.apple.com/uk/ios/facetime/>, accessed 11 August 2015), they prefer Tablets⁵⁷. Tablets have Applications (Apps)⁵⁸ that may match with their interests and hobbies too. (e.g. YouTube, Spotify⁵⁹, BBC iPlayer).

- **Focus on privacy and online safety:** Participants in our research have expressed concerns over privacy settings in social networking software such as Facebook. They would like that by default that settings should be set to the maximum privacy possible so that they don't have to 'remember' or 'learn' to change the settings. The older people also have fear of internet frauds and their online safety such as 'strangers' getting to know about where they live or whether they live alone, etc.

I think security is a very big issue, I'm constantly reading of situations where older people are getting caught out online and I know you have covered this already. I don't know if there is someone who can design a security software specifically for older people that can protect them more. [researcher reflecting on her observations]

Existing OU resources that can feed into this proposed MOOC are:

FutureLearn: An Introduction to Cyber Security: This MOOC is now in its third presentation on FutureLearn and also available as a self-study course on OpenLearn.

<https://www.futurelearn.com/courses/introduction-to-cyber-security> [accessed 10 August 2015]

OpenLearn: Introducing Ageing: <http://www.open.edu/openlearn/health-sports-psychology/introducing-ageing/content-section-o?contandchanfooter> [accessed 10 August 2015]

This proposed MOOC or **an additional supplementary MOOC** should focus on training (or guiding people) on assessing older people and disabled people for their requirements of **assistive technologies** to use the internet-based services in order to address some of the age-related disabilities that mar a positive online experience (e.g. related to partial sightedness, hearing, mobility and learning). This could be using hardware or through software such as Apps, screen-readers, screen-magnifiers, speech recognition software. Tablets have a range of built-in assistive/access technology (AT) features, and free and open source or not-to-expensive Apps (as compared to AT for laptops/desktops) including Apps for online safety - which help to deliver an inclusive and safe online user experience.

⁵⁷ The generation that tech forgot, <http://www.bbc.co.uk/news/technology-32511489> [accessed 10 August 2015]

⁵⁸ How to get older people using iPads & Apps, <https://myageingparent.com/technology/communication/how-to-get-older-people-using-ipads-apps/> [accessed 10 August 2015]

⁵⁹ Spotify, Music for everyone, <https://www.spotify.com/uk/> [accessed 10 August 2015]

A long-term plan could be to develop a **certification for healthcare and social care professionals** such as occupational therapists. As of now, we are not aware of compulsory accreditation for assistive technology assessors and any qualifications in this area.

Old Hands New Buttons

POST - FREE computer skills training for the over 65; POST has been set up to help older people who wish to learn new skills to stay in contact with friends and family. POST offers FREE computer skills training for the over 65.

POST, <http://postuk.club> [accessed 10 August 2015]

6 Conclusions

The research in this report⁶⁰ has been conducted by OU and has been inspired by the authors' association with Age UK Milton Keynes. Our aim has been to present a case for imparting digital skills to people aged over 55 years of age, and to present strategies, which, we hope, partnerships of academic institutions, businesses, and organisations in the voluntary sector (e.g. Age UK, Carers UK) could take forward.



⁶⁰ **Reference this report as:** Minocha, Shailey; McNulty, Catherine; and Evans, Shirley (2015). Imparting digital skills to people aged 55 years and over in the UK. The Open University, Milton Keynes, UK. Available at: <http://oro.open.ac.uk/44009/>

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Please contact **Professor Shailey Minocha**, shailey.minocha@open.ac.uk for any feedback, queries and comments. Thank you.

7 References

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