

# Digital Literacy for the Third Age: Sustaining Identity in an Uncertain World

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## Summary

The world in which we live - the world of late modernity - is characterised by a deep uncertainty; uncertainty not only about the foundations of social structure, but also about individual identity. Digital technology offers powerful tools for learning, for self-expression, and for the building, maintenance and sharing of identity. But for citizens of the third age, these aspects of the modern world pose a threat to their identity. Being able to use the technology appropriately in real situations is therefore important to any citizen.

Technology has not changed the notion of what learning is, but it has opened up more avenues in thinking how it can be done. If we wish to empower seniors digitally we should focus on their goals for digital usage, the areas in which digital activity is socially meaningful and contribute directly to the development of meaning and identity.

This paper presents a three-level model of digital literacy, understanding that by being aware of the challenges older citizens are facing in modern society we can consider more clearly the role which digital literacy, and its relation to learning, may play in addressing their predicament. Because of the particular uncertainties of the role of our seniors in society, digital literacy can be of great value as a means of social involvement and assertion. Gaining a literacy of the digital, senior citizens can retain a hold on the shape of their lives in an era of increasing uncertainty. In a society where inter-generational uncertainty is probably greater than it has ever been, it can also offer the possibility of a bridge of understanding across generations.

**Keywords:** digital literacy; inclusion; learning; senior citizens, identity, third age, generation gap

## 1 Introduction: Senior Citizens and ICT, a Policy Challenge

Addressing the needs of older citizens is now an essential element of the inclusion policies of both national governments and the European Union, and there is awareness that ICT can be of great significance in achieving goals in this policy area. Ala-Mutka et al., in their overview for the European Commission of the potential of ICT in supporting “active ageing” conclude that, “Holistic policies are needed to support learning opportunities in ageing societies.” (Ala-Mutka et al., 2008: 5.) The policies recommended, in the context of the recognition of learning as a central aspect of “successful ageing”, are: supporting local communities in providing suitable ICT facilities; encouraging ICT-based networking to involve older people in communities, virtual and otherwise; promoting ICT-related learning opportunities; funding relevant R & D projects; the linking of different policy areas; and the development of content of IT literacy courses. (ibid.: 27-28)

The intention of this paper is to take the holistic reference a little further, and to show a linkage leading from the nature of current Western society through concepts of digital literacy to the individual predicaments and opportunities of older citizens. I will seek to argue that by being aware of the challenges facing older citizens in late modern society, we can consider more clearly the role which digital literacy, and its relation to learning, may play in addressing their

predicament. I will consider the nature of late modern society and of the so-called “third age” and the importance to them of learning and of the digital, then look at the nature of digital literacy, and what this could mean in practice to older people, before offering a perspective on what would be important for “holistic” policy-making.

## 2 Identity in Late Modernity

Social scientists are not agreed on what to call the society in which we now live, but are generally agreed that it is in significant respects a different society from that of fifty years - two generations - ago. The Polish sociologist Zygmunt Bauman offers a convincing characterisation of the present world as one in which nothing is long-term, nothing is fixed. Bauman (2000) argues that the breakup of traditional society with its (more-or-less) unchanging norms and fixed statuses under the impact of the demands of the industrial revolution created a crisis of knowing, an uncertainty about the nature of the world and our place in it, as the assumptions and the dicta which had previously held sway increasingly failed to convince. This crisis was solved, temporarily, by the emergence of the nation-state, which made itself a provider and maintainer of a social structure appropriate to industrial society, and a focus for the ideals and aspirations of ordinary people. This was the era of classic or “heavy” modernity, upheld by three pillars, the nation-state, heavy industry and institutionalised religion. However, the last half-century has seen a change in this situation, with all three pillars crumbling, revealing a society which has fewer fixed points, less certainty, less predictability.

We may identify three key elements of this “late modern society”. Firstly, it is a globalised society, in which the free-market economy has become transformed into a supranational order, in which the elite, no longer loyal or beholden to any one country, and itself highly mobile in terms of its location and lifestyle, deploys capital on a global basis, moving resource from state to state, from continent to continent, responding continually to changes in commodity prices, raw material availability and transport and labour costs. In this context the role of the state as provider and occasionally enforcer has become less relevant to the capitalist order, and it has therefore begun to step back from these roles, reducing its activity or passing it over to the private sector. Secondly, it is a digitally-infused society. Digital technology has become essential to the accomplishment of most official and commercial activities, and many personal ones too. The digital, which was initially a tool to achieve faster and more efficiently the activities we already performed, has enabled activities previously considered unimaginable, including globalisation itself. It has also forced a change in the way we think about information, from a finite and masterable substance to a product of infinite quantity which can only be engaged with through digital tools. Thirdly, it is a society in which change is perceived as endemic and as rapid, in which nothing appears to remain the same, in which fashions change by the season, political leaders rise and fall with stunning rapidity, “celebrities” arise from nowhere with often the slimmest claim to fame, and can vanish overnight, and every product on the market is “new”. Buzzwords define values: in higher education “quality” has been superseded by “excellence” (- but what comes after excellence?). In practice the change is not so real - the companies making the new products are the same, and the rich tend to stay rich - but the perception of change is necessary in a global economy whose basis is consumption.

For the individual, the crisis of knowing which provoked fear at the demise of the traditional order re-emerges as the certainties of the modern era crumble away; order itself crumbles, to leave only uncertainty, unpredictability:

*Society is being transformed by the passage from the ‘solid’ to the ‘liquid’ phases of modernity, in which all social forms melt faster than new ones can be cast. They are not given enough time to solidify, and cannot serve as the frame of reference for human actions and long-term life-strategies because their allegedly short life-expectation undermines efforts to develop a strategy that would require the consistent fulfilment of a ‘life-project.’ (Bauman, 2005: 303)*

For those who do not belong to the global elite, life has become an individual struggle for meaning and livelihood in a world which has lost its predictability, what Ulrich Beck terms “The Risk Society”; risk and uncertainty have become endemic features of the personal biography, and individual risk-management action is thus an essential element of social action (Beck, 1992). Such societies exhibit growing atomisation of the social order, with consequent emphasis on the individual as the fundamental social entity, and the construction of individual identity as the fundamental social act (Bauman, 2001; Beck & Beck-Gernsheim, 2001). As the taken-for-granted structures that gave life its predictability and meaningfulness in previous ages - the nation-state, religion, social class - become less reliable, and change becomes more rapid, the construction of individual identity has become the fundamental social act. Each individual has become responsible for their own biography.

*Living your own life therefore entails taking responsibility for personal misfortunes and unanticipated events. Typically, this is not only an individual perception, but a culturally binding mode of attribution. It corresponds to an image of society in which individuals are not passive reflections of circumstances but active shapers of their own lives, within varying degrees of limitation. (Beck & Beck-Gernsheim, 2001: 24)*

The local community ceases to be an element of stability which confers aspects of identity, and the building of involvement in communities has become a conscious action forming part of the construction of individual identity. Even the family is no longer a lifelong bedrock of identity, atomised by repartnerings and geographical dispersion. Individual responsibility does have positive as well as negative aspects: the freedom to make one’s own biography has never been greater, a theme frequently repeated in the media. But the economic structures of society, based upon a global free market exploited and manipulated by economic and political power-holders, continue to distribute the choices available very unequally and the ideology of the market places the responsibility for poor choice squarely upon ourselves. Manuel Castells calls this emerging social form the “network society” and points to individual identity as a crucial nexus:

*Identity is becoming the main, and sometimes the only, source of meaning in an historical period characterized by widespread destructuring of organizations, fading away of major social movements, and ephemeral cultural expressions. People increasingly organize their meaning not around what they do but on the basis of what they are, or believe they are. (Castells, 1996: 3)*

### 3 The Third Age

As life expectancy increases and birth rates decline, older people are forming a more significant sector of this society. By 2010 23% of the European Union’s population will be 60 or over, and this is projected to rise to 35.2% by 2050 (EU statistics quoted in Ala-Mutka et al., 2008: 9). For citizens of this “third age”, those who have completed their working life, or the period in which they are expected to be productive in some way, whether in producing goods and services or raising children, the society of late modernity presents both opportunities and challenges. The opportunities are those of making creative and fulfilling use of time, freed from the demands of regular labour, whether in employment or childrearing or otherwise. These activities can be powerful assertions of identity. As forms of social action, they contribute to the re-forming of society: the more active seniors are, the more they can make a society in which seniors can be active. The challenges, alas, are many, and include personal financial situations (pensions and other financial support), levels of infrastructural support (e.g. from national or local government), and wide-ranging ageist stereotypes.

Seniors share many characteristics with groups of other ages, particularly those associated with socio-cultural background. However in four crucial ways they may differ from younger people sharing the same socio-cultural background. First, they are likely to be financially less well off, living on pensions or other forms of fixed income. Second, they are less embedded in social

networks; in particular, the major social location provided by work and to a lesser degree by childrearing activities, is gone. The family unit may well have reduced to a twosome, and for many it then becomes one. Third, they may find it harder to take on board new ideas and learn new skills; habits of learning may have been lost and a penchant developed for stability rather than change. And fourth, as time passes they will often become physically and even mentally challenged as bodily deterioration sets in. It is important to remember that senior citizens do not themselves form a homogeneous group; in addition to dimensions of social, economic and cultural variation, factors related to physical condition and health take on more significance as individuals get older. Ala-Mutka et al. (2008: 13), summarising previous studies, suggest four phases of ageing: the period around retirement; the period of autonomous life as a pensioner; the period of increasing handicaps; and the period of dependency. We should be aware that seniors in different parts of Europe may have very different experiences of the challenges presented by ageing: in some places more traditional sources of involvement in family or locality may be much stronger than in others.

The three characteristics of current society which we identified above militate against significant active participation of seniors. Older people are, for economic and health reasons, more likely to be place-bound, although for some the third age represents a golden opportunity for off-peak travel worldwide. Mobility of most seniors is more likely to be locally or regionally focused, and is certainly enhanced by concessions and privileges offered by official and commercial organisations; an example is the Entitlement Card issued by the Scottish Government, which enables all citizens over 60 to travel free on all bus services in Scotland, and to have reductions on rail and ferry travel. Their value to the global economy is more as consumers than as producers, although the market opportunities represented by seniors are enormous if they can be persuaded to consume. They may have difficulty becoming familiar with digital technology, especially if they have not encountered it previously (this will be discussed further below). And the perception of rapid change renders older citizens less valued as bearers of wisdom and knowledge, and makes it more difficult to sustain an identity which commands respect rather than simply tolerance, and is accepted beyond a narrowing circle of family and friends.

The identity issue we have identified as lying at the heart of late modern society poses particular challenges for seniors, in that their participation in key social networks becomes attenuated or lost. In particular, networks relating to childrearing and to work are usually lost; family connections may become attenuated as family members disperse or change partners; and networks related to leisure interests become weaker as the ability or inclination to participate physically declines.

For many seniors, occupation continues to be a major source of identity, for oneself and for others, and many seek to retain the identity link provided by occupation. "Retired" may be an accurate description of current status, but it is a description based upon *having been productive* as a past state, a deficit condition of no longer being productive. It also suggests that the main part of our life is over, that what we have now is a period of unproductiveness, perhaps of inactivity, or of activity which is less significant. It is understandable that some individuals fight against their employers' desire for them to retire, and hope to work until they die. For the self-employed and owners of businesses, this can be a reality. Economic productivity is a fundamental element in the western value-system, and leads to devaluation of those not judged to demonstrate it and the generation of enduring stereotypes of non-productive groups, especially senior citizens (Tornstam, 1992).

For most seniors, however, major sources of identity lie in family, friends and leisure activities. Of these, family is the most important, and it can be argued that expectations of the respective family roles of seniors and other family members are crucial to "successful ageing" (e.g. Torres, 2002). However, atomisation of family structures, and geographical mobility of younger family members makes maintaining family links a difficult task for many seniors. The role of seniors within the family, as bearers of family lore and worldly wisdom, or as willing and cost-free child-minders, has, for many, been lost. Friends may have made different retirement choices, moved to a more congenial retirement location, even in another (warmer) country. Leisure activities too

must change as ageing occurs; prestige derived from earlier more physical activities is now only a memory.

Identity-maintenance by seniors is not made any easier by persisting, maybe even increasing, attitudes of ageism, resting on persisting and deep-rooted stereotypes.

*Ageism ... is widespread, generally accepted, and largely ignored. Stereotypes that underlay the pervasiveness of ageism have become so embedded in our perceptions of human life that they are taken for granted and have become unexamined tacit assumptions.* (Angus & Reeve, 2006: 138)

Angus and Reeve indicate convincingly how ageist assumptions have even found their way into recent ideologies of “successful ageing” and “ageing well”, and argue that the practice of younger people speaking about and on behalf of seniors needs to be complemented by active participation of seniors in shaping what they do and how they are perceived.

Dramatic improvements in health technology in late modernity have also raised a terrible spectre which stalks the third age, the spectre of the ugly, degrading and corrosive nature of the process of dying. In previous ages, death was for the vast majority a swift occurrence, transforming a healthy being into a corpse within, at the most, a matter of days. The metaphor of death wielding a scythe reflects the suddenness and rapidity of the process, as do the widespread images of death as a gateway to something beyond, through which the individual (or their soul) passes without undue delay. But now health technology and medical technique have re-created dying as a desperate struggle against death, or, even worse, as a protracted decline of the mind into madness while the body lives on. Sustaining identity in the midst of this “fourth age” is the last and perhaps the greatest challenge that ageing brings.

## 4 Learning, Identity, and the Digital

Education and identity are inextricably bound together: we learn to be what we are, and that learning is lifelong, even up to the very end. The only thing we do not learn is how to be born!

Over the last few decades, senior citizens have been brought in from the cold as participants in education. Notions of “lifelong learning” have characterised the individual biography as a never-ending learning journey, akin to the German notion of *Bildung*, with the timing and nature of new inputs chosen in the light of personal circumstances and goals. It is also recognised that much, maybe most, learning takes place outwith the classrooms of the formal institutions of learning, including on-the-job learning in the workplace, informal learning, self-directed learning, and “vicarious learning” gained by watching others learn (Mayes & Fowler, 2006: 31). In this view learning becomes a central part of the personal construction of identity. This realisation is a sociological concomitant of the constructivist psychologies of Piaget, Bruner, Vygotsky and others, which set off, in the 1950s and 1960s, the idea of student-centred learning. Construction of meaning is now recognised as a social as well as psychological activity: meaning is made and maintained in the interaction of members of society. Meaning is assimilated and re-created by the individual over the course of his/her life in interaction with others, but for each individual there is a unique constellation of meaning, which forms the basis of individual identity (see e.g. Elias, 1991).

We can characterise as “the pedagogy of identity” that approach to learning which focuses on enabling the development of individual identity in the context of learning as social action. Learning is a social process and the skill of building identity is something which also needs to be learned. A context for learning is thus social as well as psychological maturation. Part of the formation of identity is the unique network of social relationships constructed around each individual, and the recognition by the individual of the roles which he/she performs and the communities to which he/she belongs. Learning is both socially constructed and socially constructing: the individual assimilates patterns of social behaviour appropriate to the

relationships and communities in which he/she participates, but in re-creating these patterns can seek to change them, and in this way also affect the way they are perceived by others. Wenger's concept of the community of practice serves to emphasise that the identity of the individual as a learner is derived from and embedded in his/her membership of and active participation in a group which follows a shared activity in pursuit of a shared goal (Wenger, 1998). This also underlines the fact that learning is situated in the actual social reality in which we live. Its value to our life is thus directly assessable: does what I am learning help me towards one of the goals I have set myself or accepted for my life.

These insights apply to seniors as much as to other sections of the population. In fact, even more so, since ageist stereotypes portray seniors as neither willing nor able to learn, and as clinging to out-of-date knowledge and practices. The idea that learning never ceases, and that it makes people what they are, has enabled the presentation of the "Third Age" as one of opportunity and self-realisation, and underpinned the concept of "ageing well" as a process in which seniors continue to learn and to develop their identity. Provision of learning opportunities for senior citizens has become an urgent policy imperative for western governments, and learning providers have responded to the growing demand for (mostly) daytime educational opportunities.

As mentioned above, the society in which we now live is suffused by the digital. It would be unfair to call it a "digital society", for the digital is not its most fundamental characteristic. The digital is now ubiquitous; it now requires a positive decision to avoid the eWorld. Digital technology offers powerful tools for learning, for self-expression, and for the building, maintenance and sharing of identity. Ala-Mutka et al. (2008: 19-20) identify examples of those they consider most relevant to older people.

Seniors are increasingly engaging with digital. Figures from the Pew Internet & American Life Project show internet usage by Americans aged 65 and over as increasing dramatically (Figure 1) but still significantly lower than that by younger persons (Figure 2).

<i>year</i>	<i>percentage</i>
1996	2
2000	15
2004	22
2005	29
2006	34

*Figure 1. Internet use by US residents aged 65 and over (from Fox, 2004, 2006)*

<i>age group</i>	<i>percentage</i>
18-28	89
29-40	86
41-50	78
51-59	72
60-69	54

*Figure 2. Internet use by US residents aged 18-69 (from Fox, 2006)*

However, referring to seniors using the internet, Fox (2006: 1) points out that, "Most of the growth in this group over the last few years has come from long-time internet users in their early sixties aging into senior status. There is little evidence that many non-users in their seventies and eighties are suddenly getting the internet bug." It seems that most older seniors, who have never needed to engage with the digital, choose to continue this way, although many will not hesitate to allow other family members to carry out digital tasks for them, so that there is a significant proxy usage.

The situation in Europe is less favourable. In 2007, 81% of respondents aged 65-74 and 60% of those aged 55-65 said that they have no computer skills. Computers are used more by those who are better-educated and probably financially more secure. (Ala-Mutka et al.: 21).

The figures should not be taken to suggest that the digital engagement of senior citizens is unproblematic. Two challenges are presented. The first is to “beat the demographics” by enabling older seniors to engage with the digital, and to reach those younger seniors who did not get digitally empowered younger. The second is to enable creative and relevant IT usage by seniors, so that it becomes a positive aspect of “successful ageing”. This is not to suggest that IT engagement be forced upon seniors - we must respect the conscious decision of those who choose to live without it. The concept of digital literacy may offer a way of addressing both challenges in a manner which also enables seniors to be active rather than passive participants in the social process.

## 5 Digital Literacy

The notion of literacy is important in enabling skills to be placed within a context of meaning and social action. Claire Bélisle (2006) characterises the evolution of literacy concepts in terms of three models. The *functional model* views literacy as the mastery of simple cognitive and practical skills, and ranges from the simple view of literacy as the mechanical skills of reading and writing to a more developed approach (evinced by e.g. UNESCO, 2006) regarding literacy as the skills required to function effectively within the community. The *socio-cultural practice* model takes as its basis that the concept of literacy is only meaningful in terms of its social context, and that to be literate is to have access to cultural, economic and political structures of society; in this sense, as Brian Street (1984) has asserted, literacy is ideological. The *intellectual empowerment* model argues that:

*Literacy not only provides means and skills to deal with written texts and numbers within specific cultural and ideological contexts, but it brings a profound enrichment and eventually entails a transformation of human thinking capacities. This intellectual empowerment happens whenever mankind endows itself with new cognitive tools, such as writing, or with new technical instruments, such as those that digital technology has made possible.* (Bélisle, 2006: 54-55)

In viewing literacy within the context of a digitally-infused society as, at one level functional, at another socially engaged, and at a third as transformative, we can see it as a powerful tool for the individual and the group to understand their own relationship to the digital, that is, to be aware of the role of the digital in their own development, and to control it, that is, to place the digital at the disposal of their own goals and visions.

The term *digital literacy* was popularised by Paul Gilster, who, in his book of the same name defined it as:

*the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers. The concept of literacy goes beyond simply being able to read; it has always meant the ability to read with meaning, and to understand. It is the fundamental act of cognition. Digital literacy likewise extends the boundaries of definition. It is cognition of what you see on the computer screen when you use the networked medium. It places demands upon you that were always present, though less visible, in the analog media of newspaper and TV. At the same time, it conjures up a new set of challenges that require you to approach networked computers without preconceptions. Not only must you acquire the skill of finding things, you must also acquire the ability to use these things in your life.* (Gilster, 1997: 1-2)

Gilster identifies critical thinking rather than technical competence as the core element of digital literacy, and emphasises the critical evaluation of what is found on the Web, rather than the technical skills required to access it. He also emphasises, in the last sentence, the relevant usage of skills “in your life”, that digital literacy is more than skills or competences.

A lifelong perspective is added by Morten Søby, who proposes the concept of “Digital Bildung”:

*Digital bildung expresses a more holistic understanding of how children and youths learn and develop their identity. In addition, the concept encompasses and combines the way in which skills, qualifications, and knowledge are used. As such, digital bildung*

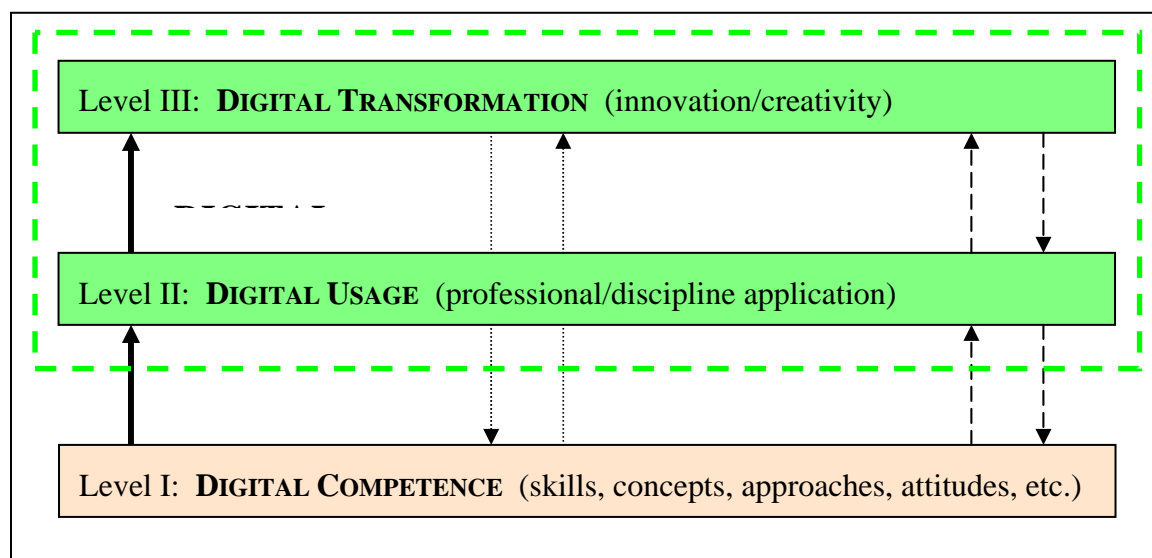
*suggests an integrated, holistic approach that enables reflection on the effects that ICT has on different aspects of human development: communicative competence, critical thinking skills, and enculturation processes, among others. (Søby, 2003: 8)*

Søby uses the German term *Bildung* to suggest the integrated development of the individual as a whole person. The process of *Bildung* goes on throughout life, affects all aspects of the individual's thought and activity, and affects understandings, interpretations, beliefs, attitudes and emotions as well as actions. It represents the making of the individual both as a unique individual and as a member of a culture.

I have proposed a definition of digital literacy which takes into account its impact on social action as follows:

*Digital Literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyse and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process. (Martin, 2006: 19)*

Just as we saw above that literacy can be seen as conceivable on three levels, we may approach digital literacy in the same vein, seeing it as operative first at the level of technique, of the mastery of digital competences, secondly at the level of thoughtful usage, of the contextually-appropriate application of digital tools, and thirdly, at the level of critical reflection, of the understanding of the transformative human and social impact of digital actions (Figure 3). I have earlier suggested that approaches to computer literacy have evolved towards encompassing all three levels (Martin, 2003). The implication of the definition adopted is that we can only talk about digital *literacy* at levels II or III; digital *competence* is a requirement for and precursor of digital literacy, but it cannot be described as digital literacy.



*Figure 3. Levels of Digital Literacy*

### **Level I. Digital Competence**

At the foundation of the system is *digital competence*. This will range across a wide range of topics, and will encompass also a differentiation of skill levels. Individuals or groups will draw upon digital competence as is appropriate to their life situation, and return to it as often as new challenges presented by the life situation change. Components of digital competence may be mastered at levels of expertise which will vary from basic skills to more demanding evaluative or analytical competence. Digital competences could include finding information on the web, word processing and document preparation, electronic communication, creation and

manipulation of digital images, use of spreadsheets, creation of presentations, publishing on the web, creation and use of databases, simulations and modelling, desk top publishing, digital and interactive games, production of multimedia objects, and mastery of digital learning environments. Instantiations of digital competence will vary from person to person as their situations vary, and will change over time as new tools and facilities are developed.

### ***Level II. Digital Usage***

In moving from digital competence to digital literacy, however, we take on board the cruciality of *situational embedding*. Digital literacy must involve the successful usage of digital competence within life situations, the appropriate application of digital competence within specific professional or domain contexts, giving rise to a corpus of *digital usages* specific to an individual, group or organisation. In generating digital usages, users draw upon relevant digital competences and elements specific to the profession, domain or other life-context. Each user brings to this exercise his/her own history and personal/professional development. Digital usages are shaped by the requirements of the situation: they are focused upon solution of a problem, completion of a task, or achievement of some other outcome within the professional, discipline or other context, and are thus uniquely shaped by the particular expertise of the individual, without which they cannot be successful. The drawing upon digital competence is determined by the individual's existing digital literacy and the requirements of the problem or task. Digital usages are therefore fully embedded within the activity of the community.

### ***Level III. Digital Transformation***

The ultimate stage is that of *digital transformation*, and is achieved when the digital usages which have been developed enable innovation and creativity, and stimulate significant change within the professional or knowledge domain or the personal and social context. This change could happen at the individual level, or at that of the group or organisation. A requirement for transformation is critical reflection on the part of the individual or group; reflective action is needed at all levels of literacy, becoming more critical at the upper levels.

## **6 Digital Literacy and the Third Age**

### ***Level I. Digital Competence***

At the level of digital competence, older citizens must acquire mastery of digital tools and facilities. For younger seniors who have used digital tools for years this is not a problem, as they will not only be familiar with well-known tools, but also be able to "have a go" at new ones with a reasonable measure of success. The real problem is for those who have not previously been involved in the digital, or for whom ageing raises particular problems of access.

Older citizens new to information technology encounter some specific difficulties particular to the ageing individual. According to Wood et al. (2005: 430)

*The challenges start with issues related to access, and if access is possible, there are physical, cognitive, and emotional barriers that may inhibit use of the technology. For example, adults who are less familiar and have less training with technology often have greater computer anxiety. Computers may pose unnecessary physical and cognitive demands depending on the hardware or software that is selected. Understanding how seniors navigate the use of technology is a critical first step in overcoming the challenges of computer use.*

Accordingly, at the level of basic competence, courses can be designed which take simple steps to address the particular needs of older citizens. Carol Bean describes a set of courses adapted for seniors at Palm Beach, Florida (Bean & Laven, 2003; Bean, 2004). Class members are carefully filtered so that the pace is right for them; classes are small (maximum 6) with auxiliary assistance for tutors; classes are spaced only a few days apart, and members must complete homework assignments between them; special training is given on using the mouse

for beginners; software used is chosen for simplicity and ease of use by those who may be anxious users. Feedback shows that these measures are successful in enabling older adults with no previous experience of IT to begin to gain familiarity with digital tools.

### *Level II. Digital Usage*

In many respects, seniors' digital activity is no different from that of the whole population, although there are significant variations. Data from the Pew Internet & American Life Project 2003-4 surveys (Figure 4) shows the ranking of activities between adult non-seniors and seniors almost identical. The main difference is that for most activities senior users show a lower level of usage. Only one activity, researching genealogy/family history, stands out as clearly more popular among the senior group. Other areas such as email or seeking health information in which seniors are heavily involved more-or-less match other adult users, however these do show areas in which seniors prefer to be involved, or feel more confident.

<i>activity</i>	<i>% of users aged 18-64</i>	<i>% of users aged 65+</i>
<b>Uniform popularity:</b>		
Send or read email	91	94
Look for health/medical information	66	66
Get financial information	44	41
Play a game	40	35
Buy stocks, bonds, etc	12	15
<b>More popular among seniors:</b>		
Genealogy/family history	23	36
<b>More popular among younger users:</b>		
Use search engine to find information	90	82
Research a product before purchase	79	66
Research a hobby or interest	77	52
Check the weather	76	60
Get news	71	59
Buy a product	67	47
Download files	43	30
Send instant messages	40	28
Participate in online auction	24	9

*Figure 4. Online activities of older and younger online users  
(Extracted from Fox, 2004: 10)*

Slightly later Pew figures (Fox, 2005: 3) show some of the gaps narrowing, especially amongst the 60-69 age group, again supporting the notion of "wired seniors" as the younger portion of older citizens.

The conclusion we draw from these figures - admittedly representing only US data - is if we wish to empower seniors digitally we should focus on their own goals for digital usage. These are the areas in which digital activity is socially meaningful, and will directly contribute to the development of meaning and identity.

A major goal for most seniors is communication with other family members. Because of geographical dispersion, face-to-face contact may be limited to special occasions, or simply not possible. Using landline or mobile telephones is expensive, especially if the distance is great. But for synchronous communication, tools such as Skype™ offer an inexpensive means to converse with loved ones wherever they are (provided they too have access to digital tools). Adding an inexpensive camera at both ends enables the speakers to see each other too. For asynchronous communication, email offers a simple and very inexpensive means of sending letters, and accompanying them with files which may contain photos, video clips, drawings, audio material, etc. Neither of these tools is difficult to use, but they are both extremely powerful in enabling seniors to make meaning and maintain identity.

Genealogy/family history represents a particularly strong area of senior activity, in the US and in the UK, and seniors have been encouraged, or obliged, to go online by the increasing availability of genealogical sources on the internet. These sources have made available data which would otherwise require time-consuming and costly travel to physical archives, and the search facilities provided also reduce dramatically the time taken to identify and retrieve information about particular individuals. For instance, ScotlandsPeople<sup>1</sup> enables users through a web interface to search for and view birth, marriage and death certificates, wills, and other documents. In the UK, family history is a popular activity and is dominated by older individuals - it is an area where seniors can pull their weight digitally. But it is also an area where identity and embeddedness within the family are both strengthened, in three ways: by the role of the senior in discovering, compiling and presenting family information (which may include his/her own recollections); by the act of sharing that information, which confirms or even redefines the extent of the family community; and by the content of the information, which connects all those members of the family community with their forbears and with each other.

Finding information is a major goal of seniors, and search engines such as Google™ or Yahoo™ are powerful yet very easy to use. Seniors do not need high skill levels to use these tools effectively; to use them meaningfully, advanced search techniques are not necessary; they may well reduce search time if used, but time is often what seniors have more of.

The same goes with buying (and sometimes selling) online. Amazon™ and eBay™ are well-known examples of tools which can be used very effectively at a simple level to address real-life interests and pursuits. It is now possible to buy more or less anything on the web, and for seniors for whom a trip to the city is difficult and expensive, or who are interested in items unlikely to be easily available locally, online purchasing is of great value, and contributes to the individuals developing their view of themselves through what they buy. A good example is second-hand books: it is possible to access the stock of specialized bookshops worldwide and to obtain what one is interested in often at remarkably reasonable prices.

These are only examples but the point is the same for all of them: that digital tools relevant to their real-life situation and goals, even used at a simple level of competence, can contribute powerfully to identity development and maintenance for seniors.

### ***Level III. Digital Transformation***

We can identify transformative action at the individual, group and societal level.

At the individual level, digital activity can be a valuable source of identity-building. Family-related activities provide powerful underpinning to and enable further development of one's sense of family relationship, historical and often geographical continuity: communicating digitally with geographically distant (as well as nearer) family members, constructing a family tree stretching back a century or more (sometimes uncovering surprising and gripping details), recording one's own personal history, compiling a digital book of family photos which can be printed as a real book (using e.g. PhotoBooks<sup>2</sup>) or even building a family website. Activities in relation to personal interests and hobbies underpin and develop a sense of confidence in and mastery of a particular domain of knowledge and practice: for instance, researching battlefields of a particular war online, communicating with fellow military history enthusiasts by email or on online fora, and making travel and accommodation arrangements to visit the battlefields themselves. Digital literacy enables seniors to use digital means not only to achieve life goals, but to rethink the goals, to aim for what was previously unattainable.

In practice, because identity is validated by relationships and by the audiences which view it, it is largely impossible to separate individual from group action. The family-related activities noted above will all impact upon other family members. Family history activity could give many family

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<sup>1</sup> [www.ScotlandsPeople.co.uk](http://www.ScotlandsPeople.co.uk)

<sup>2</sup> [www.photobox.com](http://www.photobox.com)

members an enhanced sense of family belonging, and of the role of the senior both in the family and in the process of uncovering and recording the family's origins and past. Circulating a PhotoBook at a family event, or setting up a family website will both impact positively on the social cohesion of the family. Similarly, interest-related activity serves to support the life of the community of interest and the senior's role in it as a member. We must not forget however that digital activities do not stand alone: they are located in a context (family, interest, work, etc.) which includes both digital and non-digital activities, and in which digital tools enhance or enable activities which can be made more convenient or more prominent. The digitally compiled photo album is easier to change, to vary, to circulate and to reproduce than a box of photos, a collection of photos in different albums (perhaps owned by different individuals), or even a single well-presented album of photos.

The perception of seniors' relevant and effective digital action is important in challenging the "generation gap" by asserting that seniors' actions can be important for and valued by other generations. For younger age-cohorts, with almost universal levels of digital engagement, the digital is simply a taken-for-granted route to communication, research, making purchases, and so on. It is a fact, not a novelty or a privilege. Seniors' engagement with digital means of action thus makes the statement that there is not a barrier or distance between them and other generations; that they recognize different interests, but can use the same means to address them.

At the societal level, digital action by seniors has wider social consequence. The perceived social, economic and intellectual potential of active seniors can be raised, and political and social agendas challenged. The digital is a way in which seniors can overcome limitations of mobility and restricted income to play an active part in making the social order. In particular, three social challenges can be addressed: firstly, the ageist stereotypes which devalue and disempower senior citizens by presenting them as unproductive and dependent, and thereby rob them of their own self-worth; secondly, the economic divide which sees many seniors living in or near poverty despite the immense contributions they have made to society as we now experience it; and thirdly, the cultural gap between generations which the digital threatens to exacerbate. At an uncoordinated level, individual digital action by many seniors will contribute in any case to social evolution. At a level of collective awareness, seniors can make powerful use of digital tools to assert their own value and power in society.

## 7 Education for Digital Literacy

What are the implications for educators of the value of digital literacy in enabling seniors to support and develop meaning and identity?

The first is that it is embedded in the social fabric of seniors' lives and perceived therefore to be relevant to their needs and aspirations. In the area of taught courses this implies courses focused on what are known to be the meaningful activities of seniors which can be better realized by using digital tools. In this type of course the mastery of competences is subsumed to the goal of relevant usage; learners are motivated because they see the point of the skills, they see that the skills will enable socially meaningful action.

This means that courses are not merely constructed with seniors in mind, but they are discussed and developed in conjunction with seniors, and perhaps developed by seniors themselves. Here organizations such as University of the Third Age may be relevant, both as enablers of the production of relevant course material, and providers of educational opportunity in the digital area at an affordable cost. Other provision structures such as time banks may be useful too in developing courses as collaborative, self-help ventures.

Local authorities can play an important role in enabling access to digital facilities. In the UK the "Peoples Network" has placed sets of computers in public libraries, usually conveniently located for seniors. These facilities can be used both individually and for self-help groups, workshops

and taught classes. For classes these facilities are particularly important, for they are often more conveniently situated than formal educational institutions. But these facilities also enable informal learning, such as the almost casual pointers and reminders which the staff in my own library give to older users.

This is not to say that formal institutions do not have a role in developing and supporting digital literacy for seniors. Basic courses can be developed focused on the known usages of seniors, and specialist courses offered in areas such as family history. However, from my own observation, family history courses at my local library are always fully subscribed, and the majority of attendees are older people. Schools can similarly offer locally based evening courses. Universities often require further travel to attend classes and courses may be more expensive, although costs can sometimes be reduced for seniors (e.g. in the UK through the Individual Learning Account scheme), however in Scotland universities will offer courses for adults in local schools or church buildings.

For older seniors special courses could be developed which take into account the particular difficulties they face in using digital tools and in conceptualizing the way in which digital tools work. Such courses could be made available to local centres of learning and online so that individuals may use them locally or at home (if they have access to the worldwide web).

The last point raises a more general issue that with many older citizens the problem is one of access and cost, and these two are closely related. We come back to the general problem of securing all citizens an acceptable quality of life in a society which is equitable and just, that is, a political issue. Even in a society which is suffused with the digital, political forces cause decisions to be made. Despite the changes in society which seem inexorable, politics may still make a difference. Here is another role for seniors.

## 8 Conclusion

I have argued that the changes taking place in contemporary society, changing it into a society of uncertainty, risk, and the dissolution or atomisation of social bonds, make the creation of identity the main life challenge for the individual, and that for older people that challenge may be all the greater. Using digital tools may help them with activities which help to maintain identity, both for themselves and for others. In enabling older citizens to become digitally literate we are thus supporting the enablement of meaning and identity creation. This is the reason for the need for holistic policies which locate groups of citizens firmly in their social context, and focus on their wider need for identity-building social action.

In a digitally-infused society, we must then assert the right of all citizens to digital literacy, just as their rights to classical literacy (i.e. reading and writing) have been, and continue to be, asserted. In such a society, in which the digital is pervasive, the relationship between classical and digital literacy becomes closer. Should we redefine “literacy” as involving both reading/writing and digital actions, as some literacy theorists already propose (e.g. Tyner, 1998; Kress, 2003)?

Digital literacy, like classical literacy, is for all citizens a means of engagement between the individual and society, a medium for the creation and sharing of meaning, through which actions are guided, social patterns develop and change, and the social order evolves. The society we now live in, whatever it can be called, is infused with the digital; to engage with that society it is necessary to engage with the digital. By doing so senior citizens participate in the process of making shared meanings, and constructing identities, and of seeking control over the social and cultural context. Gaining a literacy of the digital is one means by which senior citizens can retain a hold on the shape of their lives in an era of increasing uncertainty.

*This paper was developed from a presentation given at the 5<sup>th</sup> European Learning in Later Life conference, University of Ulm, Germany, 4-5 October 2007.*

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## Edition and production

Name of the publication: eLearning Papers

ISSN: 1887-1542

Publisher: [elearningeuropa.info](http://elearningeuropa.info)

Edited by: P.A.U. Education, S.L.

Postal address: C/ Muntaner 262, 3º, 08021 Barcelona, Spain

Telephone: +34 933 670 400

Email: [editorial@elearningeuropa.info](mailto:editorial@elearningeuropa.info)

Internet: [www.elearningpapers.eu](http://www.elearningpapers.eu)