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"Stay Tuned": The Role of ICTs in Elderly Life

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> Abstract. Ageing in western society has become a key issue in political and academic debate: politicians, sociologists, doctors, demographers, psychologists, economists are trying to understand how ageing will impact our future society. In this frame, media and communication technologies seem to be more and more relevant for the elderly, thanks to those services and devices helping people to grow old actively. Technologies, the Internet and ICTs could help the elderly to improve their quality of life, to be healthy and independent and to get better assistance. Our ongoing research investigates the relationship between the elderly and use of technologies, and explores the role played by media and ICTs in building a friendly and positive environment for the elderly, and in constructing and maintaining social relations and promoting healthy ageing. Specifically, the research will investigate the use of ICTs by the elderly by taking into account two different perspectives: a) Exchanges between generations: lengthening of life corresponds to a longer period of cohabitation between at least three generations (grandparents, children, grandchildren), and also of co-use of digital media. The research wants to investigate relations between two age groups (grandparents and grandchildren; young people and older people) to understand the dynamics of intergenerational mutuality in the use of technologies and ICTs. b) Media, ICTs, Health: the Western world is increasingly populated by elderly population. Technologies and ICTs can help elderly people to improve their quality of life, to be healthy and independent and to get better assistance. ICTs should encourage active ageing and, in the case of health technologies, new models of care. The project, lasting 1 year, is based on (1) a survey on young elderly (65-74 yrs) population in Italy, and (2) a field-work which consists of family interviews and ethnographical sections in natural contexts.

Keywords: Ageing, Active Ageing, ICTs and Elderly

Introduction

The paper aims to provide some insights regarding young elderly and their peculiar media use which comprises their media literacy and media habits but also their choices of privileging certain devices more than others. This issues crosses a wider debate concerning processes of mediatization [1] such as: how digitalization changes consumer behaviors and media habits; how social representation, information,

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regulation and relation change in today complex societies; which public policy strategies, at national and European level, could be applied.

The paper is organized as follows: the first section gives an account of the main topic tackled (the young elderly) and of the theoretical approach addressed in the research here presented (the generational paradigm); paragraphs two and three show the first results of an extensive survey concerning the Italian young elderly and their technological devices, and present further research streams which will be carried out; fourth and fifth paragraphs aim to outline some interpretative hypotheses, specifically related to the research results and to the policy implementation at national and European level.

1. The Relevance of "Active Ageing and Healthy Living" as Research Topic

The research perspective and theoretical paradigm here presented assume that media are not external and autonomous agents to the entire social body. On the contrary, social identities are able to shape the role media play, although obviously interacting with the specific affordances of each communication device.

In this case, therefore, the young elderly (those aged between 65 and 74 years old) are considered by looking at the role played by their generational identity in shaping their media use. In particular, two factors need to be taken into account when considering this generation: the first depending on the stage of life; the second relating to the peculiar social experience that has characterized and characterizes this generation.

As regard the stage of life, it could be noticed that these young elders come as a result of a gradual lengthening of life expectancy (more than thirty years, since the beginning of the twentieth century), hence creating the third age (as a distinct age from the fourth), which is characterized by the double emancipation from family and employment bonds [2]. This third age has a significant demographic and social weight. Its demographic weight is very well expressed by the two following tables, which show the increasing percentage of the third age in Europe (both in the past and in the future), and the corresponding increase (at a national and European level) of old age dependency ratio, i.e. the specific demographic weight of the elderly (over 65 years old) over the whole active population (aged 14 years and over).

	Percentage aged 65+			Percen	Percentage aged 80+			Old age dependency ratio* (%)		
	1960	2010	2060	1960	2010	2060	1960	2010	2060	
EU27		17,4	29,5		4,6	12		25,9	52,6	
Italy	9,3	20,2	31,7	1,3	5,8	14,1	14	30,8	56,7	

Table 1. Elderly population. EU27 and Italy. Source: Eurostat 2011

The data confirm in a striking manner the gradual ageing of European population. The demographic data need to be integrated with other equally interesting data related to the social relevance of the elderly: according to some surveys, there is a ever closer correlation between economic wealth and ageing, so as to assume in the near future a correlation between economic divides and generational divides.

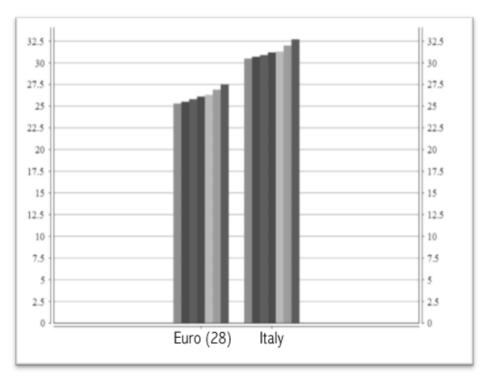


Figure 1. Old-age-dependency ratio (from 2007 to 2013). Italy and EU (28 countries). Source: Eurostat 2013.

These data sets show that the older generations are ever more than ever relevant in today society. In particular, the young elderly have something even more peculiar. They (the third age) still have a significant life expectancy (the entire fourth age), which puts them – according to Luhmann's categories [3] - in a specific situation: they do not only live in the present as the last stage of their life (as it was for previous generations who have lived this stage of life as the last one), but they also live in the present playing leading roles. Furthermore, because of historical and social reasons, the current young elderly can still enjoy a privileged status, and can also think in the future to continue to affect the society in which they will still play a key role in terms of consumption, prestige and power.

These key elements lead us to go beyond the notion of stages of life, to a more complex notion of generation, i.e. "an age cohort that comes to have social significance by virtue of constituting itself as cultural identity" [4], where biographical traits shall coexist alongside historical and cultural ones, and where age group belonging is connected to specific historical experiences, to the development of peculiar consumption habits or to the occupation of certain positions in the family chain [5].

Such a multi-dimensional category appears particularly useful for studying audiences who cannot be reduced to either individual socio-demographic traits (such as age, gender, education, job position) or to corresponding life styles (such as those codified by marketing), but have to be strictly and simultaneously related to several factors - such as stage of life, media biography, family and friendship networks as media experience environments, common shared values with other members of the same generation, historical development of media system, technological innovation in

its diverse steps, incorporation processes of technologies and media products, as well as the wider structural changes affecting the social and cultural system.

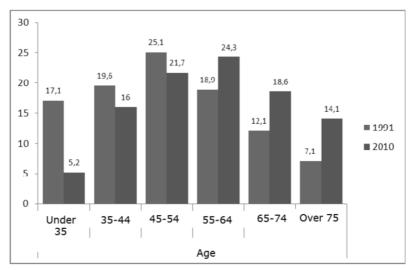


Figure 2: Distribution of wealth in Italian families, considering age of Head of Household (val %). Source: Censis 2013

In such a perspective, people who belong to this generation are people who:

- a) Were born in the same period of time (1940-1949, during the WW2 and the postwar period) and spent their formative years in similar historical, social, cultural and political contexts (the economic boom, the so called "Italian miracle" and the birth of consumerism, but also the years of the student protests in 1968/69 and the terrorism in the Seventies), so as to share a common world of past and formative (some time traumatic) experiences.
- b) Have the same age and are nowadays in the same stage of life (65-74 years old, retired or retiring).
- c) Share a particular "generational semantic" [6], that is a dominant order of meanings continuously empowered through discourse practices and significant rituals among the members of the generation itself (a collection of themes, interpretative models, evaluation principles and values through which shared experience is transformed in discourse within the forms of daily interaction.
- d) Share a sort of "habitus" [7], that is a system of durable dispositions to act and to choose, not strictly prescribed by formal rules, for example in the field of civic participation, of material and cultural consumption, of leisure: a sort of "collection of practices through which generational experiences are manifest" [4].
- e) Share a certain set of choices, that more likely depends on a generational belonging than on simple socio-demographic attributes, and marks the "distinction" [7] between different generations.

This "Post-war Generation" [8] has been depicted as an "active generation" [4], characterized by some unique features: it was the first generation that "created" the youth as a cultural and social group, with its own habits, tastes and values (first of all the value of being — forever — young), separated from those of adults [9]; it was a

global generation, covering large parts of the world and showing a global consciousness, "demonstrated by the domino effect of the social protests and the extent of cross-national activism" [10] and sustained by a global media system that broadcasted the same music, images, fictions and values [11, 12]; it was also a strong generation earning for protagonism and willing to take history upon its shoulders [13]; and it was a generation open to technological innovation and media change, from the birth of Television in the Fifties to the first wave of digitalization of Italian society in the Eighties.

Therefore, media, both as technologies of the everyday life, as taken-for-granted tools, and as cultural institutions or communicative products, genres or texts (one-to-many or one-to-one), shape in many ways this generation's identity, as in the case of the advent of television and of rock music [14]. At the same time, media also constitute a sort of public arena where different generational identities can express and discuss about themselves, co-building each other through mutual representation and social discourses able to celebrate ritually [4] - in front and on behalf of their peers - their collective identities.

In this generational perspective, the media simultaneously are: a historical innovation that characterizes the everyday experience [15]; a source of common repertoires of narratives, characters, language and musical forms, stratified in the memory of members of a generation sharing only among peers [16]; a public space in which the awareness of belonging to a generation is claimed in its differences [13]; [17, 18]; and a tool to sustain and feed the present of this ageing generation, with its new needs, problems and resources.

2. Our Research Activity

As part of a wider research project regarding Italian adult generations, a multidisciplinary team of the Catholic University of Milan, made up of sociologists, psychologists, media and communication experts and demographers has recently launched a complex investigation combining the generational approach to media use analysis.

The research, entitled "I don't want be inactive": the lengthening of life, a challenge for generations, an opportunity for the society, lasting two years, investigates the opportunities given by life lengthening according to active ageing² perspective. It consists of a survey – its results will be reported later- and in several researches conducted using qualitative and ethnographic methods.

The survey was conducted (between December 2013 and January 2014) through face-to-face questionnaire administered to a statistically representative national sample of 900 Italian elderly aged between 65 and 74 years old (by using a random, proportional, stratified by region and by size of place of residence, built in two stages

² Following the latest sociological research debate and some European policy initiatives [23], active ageing is not understood solely in terms of structural (good/bad health) and economic (lengthening of working and leisure age) well-being, but also in terms of "quality" of life and as a subjectively and socially rewarding ageing. Hence the specific objective becomes to determine what "active ageing" means - from the point of view of the subjective, intersubjective and collective opportunities -, with regard to practices, ideas, values and cultural point of views: from this point of view, the relationship between intergenerational exchange and the elderly active ageing becomes especially relevant.

sampling). The questionnaire collected data such as information about family and intergenerational relationships (size of the network); health status; leisure time and cultural consumption; use of new technologies; any past or present connection to the business world; participation to any kind of volunteering or socio-political activities; the reaction to the current economic and financial crisis; social capital and social solidarity; family network and friendship (forms of exchange and support); orientation to intergenerational relationships such as fairness between generations; values; representation of the elderly condition, and finally the economic status of respondents.

As regards media use by the young elderly the questionnaire aimed to investigate:

- Technological devices (personal and domestic digital devices smart-phones, tablets, e-book);
- Time spent and best time to use PCs and the Internet;
- Ways to use PCs and the Internet (chosen places, used platforms, people involved);
- Types of activities carried out using PCs and the Internet;
- Ways to learn how to use PCs, online services and the Internet (places and people involved in the learning activity);
- Reasons to use the Internet (changes in the lives of the elderly caused by the use of the Internet; fears, anxieties, enthusiasm in the use of PCs and the Internet);
- Use and attitudes towards health technologies.

Here follows some initial results of our research, which will be developed in following more extensive publications.

Table 2: Laptop computer or netbook according to age group and gender (% within these categories).

			Age group		Gender		
			65-69 years	70-74 years	Male	Female	Total
Laptop computer or netbook	owned and used	% within	24,0%	10,2%	22,6%	13,3%	17,5%
	owned and not used	% within	4,0%	2,4%	4,6%	2,1%	3,2%
	not owned but used	% within	,6%	,5%	1,0%	,2%	,6%
	not owned and not used	% within	71,4%	87.0%	71.9%	84,4%	78,7%
Total			71,470	87,070	/1,9/0	04,470	76,770
iotai		% within	100,0%	100,0%	100,0%	100,0%	100,0%

Total: all the Italian elderly aged 65-74 years old

At first, it is significant to note that the use of digital media involves only a part of the sample. Only 17.5% of the elderly under study affirms to own a laptop and to use it, and only 16.7% to own and to use a desktop computer. The data can become more

interesting if related to age group (distinguishing between two age-groups: 65-69 and 70-74) and to gender.

Table 3: Desktop Computer according to age groups (% within these categories).

			Age group		Gender	_	
			65-69 years	70-74 years	Male	Female	Total
Desktop Computer	owned and used	% within	20,3%	12,8%	23,1%	11,3%	16,7%
	owned and not used	% within	2,1%	1,7%	1,4%	2,1%	1,9%
	not owned but used	% within	1,7%	1,2%	2,2%	1,0%	1,5%
	not owned and not used	% within	75,9%	84,4%	73,3%	85,6%	79,9%
Total							
		% within	100,0%	100,0%	100,0%	100,0%	100,0%

Total: all the Italian elderly aged 65-74 years old

It is clearly showed that men aged between 65-69 years old own and use significantly more the computer and the Internet than old women. Beyond the wider issue of *gender divide* (in the Italian population the use of computers and the Internet is historically more widespread among males than among females), this gap can be enhanced by the diverse working conditions: if it is true that over 20% of males over 65 years old works at least occasionally (compared to 7% of women), it is possible that some of these jobs involve the use of a PC. Moreover, the younger age group (aged 65-69 years) has grown into a more digitized labor market than the older one (aged 70-74 years), hence being more used, over the years, to communication technologies: 19.5% of older males declares to access to the Internet from work, 49.8 % of older users, in both age groups, affirm that they have learned to use the computer at work.

45% of the elderly who use computers today have started using it before being 50 years old, 28.2% between 50 and 59 years, 19.1% between 60 and 64 years old. Only 9.1% of users are "new" ICTs users (they have started to use the computer after the age of 64), with a significant difference between males and females: respectively with 6.8% of men compared to 12.8% of women.

Looking at data about Internet use is also possible to note that access to the Internet is rooted in the past of the young elderly (a recent past, considering the recent spread of the Internet in our country): 39.6% of users claimed to have started using the Internet between 50 and 59 years, 28.9% between 60 and 64, 14.2% after 64 years (with a gap between males and females by 5% in favor of the latter).

These data suggest that the elderly using the computer and the Internet have behind a wide biography of use; hence they are not "natives" to the digital world but rather long-

time "immigrants", and they may apply their skills, experiences and learning to future technological developments.

Conversely, the number of new elderly users is relatively low, with an interesting percentage of women who are starting to use ICTs in recent years, if not months.

Therefore elderly ICTs users world is far from being one-dimensional and it seems to be made of diverse layers of users with profoundly different biographical paths of adoption of ICTs, PC, tablets, Internet and Web 2.0.

Table 4: Internet use during the week (% within categories).

			Age group		Gender		
			65-69 years	70-74 anni	Male	Female	Total
Frequency of Internet use during the week	Sometime a year	% within	1,3%	4,1%	2,1%	3,4%	2,6%
week	At least once a month	% within	5,1%	12,2%	4,9%	11,2%	7,4%
	At least once a week	% within	17,9%	20,3%	18,3%	19,1%	18,6%
Total	Almost every day	% within	75,6%	63,5%	74,6%	66,3%	71,4%
		% within	100,0%	100,0%	100,0%	100,0%	100,0%

Total: all the Italian elderly aged 65-74 years old

71% of the elderly accessing the Internet do so almost every day: a very interesting research data. The majority of the (few) elderly accessing the Internet are heavy users. Accessing the Internet is a common practice rooted in the everyday life of our sample: once crossing the threshold of accessing the Internet, users will become mature in all respects and not occasional. As further evidence, 58.8% of the elderly state that they access to the Internet in all times of the day, when it is probably useful to do so.

As regards the gender gap issue, differences become wider when taking into account data about Internet access: over 65 years old women without Internet use (who have never used the Internet) are 81%, compared to 65.6% of men.

Interestingly, the gender gap is less relevant as regards other technologies: if it is true that all devices (PCs, laptops, smart-phones, MP3, games consoles) are available and used more by males than by females (with a fork variable between the two genres), two devices are instead an exception.

Percentages of males and females among the elderly using tablets (including iPads) and eBook readers are very similar: respectively 6% of men versus 3.8% of women using tablets and 1.9% of men versus 1, 5% of women using eBook readers. If it is true that tablets, iPads and eBook readers are new technologies and if it is true that "new users" are more often women than men, this shows a likely phenomenon of leapfrogging: a significant part of elderly users who start to use ICTs over 65 years old

(especially women) do so by using a new generation of technologies and by skipping previous technologies (pc-laptops). 20% of old women user claims to access the Internet by mobile, compared to 8.5% of men, who are more often traditionally rooted and used to desktop devices.

As regards places of Internet access, home is regarded as the best place for Internet access, with 98.8% of domestic connections and, in second place, 15.3% of connections at work (among our sample with Internet access). The elderly mostly access the Internet by themselves, with a significant proportion of silver users accessing with the partner (19.2%), with their children (17.6%), with their grandchildren (4.7%). As regards learning processes, 49.8% of our subsample says they have learned to use the computer at work, with a significant difference between males (57.8%) and females (37.6%): if males have mostly learned at work, the proportion of women who have learned attending courses in organizations, or associations, or municipal courses is substantially more numerous (22.8%) than that of men (14.3%). Males seem to have a more solitary learning approach, either practical (45.5% vs. 40.6% of women) or by using manuals (14.9% vs. 6.9%). Conversely, women are making more use, in addition to courses, of the help of younger friends or relatives (36.6% vs. 31.2% of males) or peers (9.9% vs. 2.6%).

As regards SNSs use, a limited number of elderly people joined Facebook and Twitter. In particular, 9.7 % of men and 5.5% of women use Facebook, while 3.7 % of males and 1.3 % of females use Twitter Even in this case, the user of these tools uses them very often: 46% of Facebook elderly male members and 73% of elderly women uses Facebook every day.

Hence there is a significant gender difference, with women who are particularly heavy users of Facebook. Furthermore, SNSs use is strongly influenced by the differences between the two identified age groups: if the 10.7% of 65-69 years old users use Facebook, the percentage drops to 3.9 % in those aged between 70-74 years. Hence SNSs are not so commonly use among the elderly over 70 years, while 31% of those aged between 65-69 years and is on Internet have a Facebook account.

Youtube is instead very widespread among the different age groups with 41% of the young elderly on Internet using it. Percentages are even more significant for the use of Wikipedia, with over 50% of users among the elderly connected.

In addition to the aforementioned data concerning devices and platforms being used, more interesting data regard the main activities the elderly do on the Internet. The search for information is transversely the most popular online activity in the subsample (79.2%), followed by email (74.9%) and the search for information about everyday life (63.9%). There is a significant proportion of people who are looking for information about their well-being: 53.1% of our the elderly connected claims to use the Internet to check for updates about health and 29.1% about their medical conditions. Internet seems to be, for our sample of old ICTs users, an crucial tool for these kinds of information. In addition, 44.5% of the "digital" sample says to use the Internet for administrative practices, with an interesting 16.5% of Internet users who booked medical checks and consult medical records online.

3. Our Future Research Activity

In the second part of the research we will investigate how media and ICTs consumption is spatially and temporally located and how these media uses and routines are shared

within the household and are enabled by processes of domestication [24]. We will take into account a categorization of households and the elderly on the basis of technological equipment and practices of ICTs use. In particular, the research will aim to verify whether processes of media literacy and appropriation are influenced by forms of intergenerational exchange [21, 22]

The sample will be chosen starting from family income, age of the elderly, family composition, geographical context (big or small city). A particular attention will be given to methodological issues concerning conducting research interviews with elderly people. The interviews will be useful to outlines different types of elderly as regards these three dimensions: 1) structural variables (education, income, ethnicity) 2) contextual variables (non-institutionalized cultural capital and social capital), 3) media and technological devices, media practices and routines, domestic, non-domestic, individual and collective media consumption.

Further, the interviews will take place and will be aimed to understand moral economies of the household [20] and processes of use and symbolic appropriation of the media and ICTs within domestic context. The research wants to investigate the role that digital age has carried out in the daily lives of older people and what are the factors that make the Internet and ICTs both near and far to the needs of this specific and unique segment of the population [23].

In summary, the second part of research aims to investigate the issue of ageing and the role that media and ICTs have in building a friendly and profitable environment for the elderly in the household, in developing and maintain social relationships and in general in being resources to promote healthy ageing [24]. The final goal of our research is to frame the role ICTs play in the life of elderly: How ICTs are used by elderly? Anxiously or enthusiastically? How ICTs and technologies change social and family relationships? How ICTs improve social inclusion, civic participation and social capital of elderly? In particular, how elderly use ICTs for personal management of their own health?

4. The Practical Value of this Research Activity for Active Ageing and Healthy Living

Use of technologies by the young elderly is an interesting subject of investigation not only from the scientific point of view, as a way to apply the generational paradigm to the analysis of media use. It is here also understood as a way of potentially promoting active ageing, from two different perspectives:

- The exchange between generations: lengthening of life corresponds to a longer period of cohabitation between at least three generations (grandparents, children, grandchildren). These relational exchanges are related to the quality of life of the elderly [25] and offer the opportunity to share leisure, cultural consumption, knowledge and skills between generations, with processes of mutual literacy, even in the case of the development of skills related to ICTs use.
- Media and ICTs: ICTs could encourage active ageing and, in the case of technologies and health-related information, new models of care [26]. Technologies and ICTs could help people to improve their quality of life and their leisure, to be more interested and cognitively active, better cared for and more independent [27].

5. Conclusion. Active Ageing and Technologies: Policy Advice

The first results of the here presented research highlights some very interesting evidence. At first, despite confirming a relatively low diffusion of ICTs among the Italian elderly, it clearly emerges a trend of progressive digitalization of the "new older generation", which is more evident in the younger age group.

Even some established trends, such as a male primacy in digital literacy, seems to be challenged by the growing popularity of tablets and smart-phones among women.

In essence, the research shows a developing trend, which can be very important in terms of analyses and also of policy strategies. The generational paradigm allows to understand that the distinction between digital natives and digital immigrants is still evident, even though gradually fading. The digitized elderly use technologies in a very "mature" way, incorporating them into their needs and lifestyles. However it is reasonable to assume that in the next few years, a growing number of ICTs elderly users will face different problems than the current.

In terms of policies, the aforementioned results therefore seem to be a warning to develop inclusive policy strategies by developing social inclusion through technologies which elderly people already use. In this respect, there is a need to use technologies of communication, information and health that suit the needs of the elderly as they are, from their actual ICTs literacy, which is derived in large part from their previous, working or not, experience. However, there is also a need to consider the elderly who are not yet ICTs users, by applying specific policies and integrating digitalized services with more traditional and less exclusive techniques. These policies need to be imagined as part of a wider program of inclusion, which does not only affects the elderly, but all the less privileged groups .

In this framework it becomes very interesting to observe the potential of mobile technologies use that seems to be able to bypass the traditional computer literacy. Hence it is necessary to develop an open approach to technological research and to development of services and apps in the field of health, well-being, as well as socialization.

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