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## **New Elders, Old Divides: ICTs, Inequalities and Well Being amongst Young Elderly Italians**

### **Nuevos mayores, viejas brechas: TIC, desigualdad y bienestar en la tercera edad en Italia**

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### **Abstract**

When compared to more digitized western countries, Italy seems to have suffered a delay of ten years, in both the use of ICTs by the elderly and the study of the relation between elderly people, ICTs and ageing. Considering this time lapse, it is now urgent that we question the factors that influence the adoption of ICTs by the elderly and whether ICTs can provide cultural and relational resources that could improve the quality of life of elderly in terms of health and social life. This article describes the main findings of a survey carried out as part of a larger national research project focused on active ageing, which involved 900 Italian people aged between 65 and 74 years of age. The research investigate socio-demographic characteristics of young elderly Italian Internet users and factors related to their use of ICTs. Results have shown that there is a strong digital divide between young elderly Italians, which is primarily influenced –in terms of classical dynamics– by differences in economic, social and cultural capital. With regard to the theme of active ageing, if it is true that highly digitalized young elders are generally characterized by good health, at the present stage of this research it is not possible to indicate whether the adoption of ICTs guarantees social inclusion and participation.

### **Resumen**

Italia parece tener un retraso de unos diez años en comparación con otros países más digitalizados, tanto en el uso de las TIC por las personas mayores como en el estudio de la relación entre las TIC y los mayores de 65 años. Por ello, se hace urgente examinar los factores que influyen en la adopción de las tecnologías por los mayores y la capacidad real de estas para proporcionar recursos culturales e interactivos, útiles para mejorar el envejecimiento activo y mejorar su calidad de vida en salud y vida social. Este trabajo describe los principales resultados de un estudio que involucró a 900 italianos de 65 a 74 años, en el marco de un proyecto nacional de investigación sobre el envejecimiento activo. El estudio indaga en las características sociodemográficas de los mayores italianos usuarios de Internet y en los factores que influyen en el uso de



las TIC. Los resultados evidencian que existe una fuerte brecha digital entre los mayores, influenciada por el contexto económico y cultural. En cuanto al envejecimiento activo, se demuestra que los mayores altamente digitales presentan una mejor vida saludable en su envejecimiento, sin poderse concluir que el uso de las TIC garantice la inclusión y participación.

## Keywords / Palabras clave

Digital literacy, digital divide, health, leisure, use of Internet, Internet, social network, active ageing. Alfabetización digital, brecha digital, salud, tiempo libre, uso de internet, internet, redes sociales envejecimiento activo.

## 1. Introduction

In many studies focused on the adoption and use of ICTs by the elderly, one of the most widely used theoretical frameworks has been that of the digital divide, both on the primary level, in which the divide lies between the «haves» and «have nots», and on a secondary level, which is related to digital literacies, competencies, skills and motivations (Loges & Jung, 2001; Hargittai, 2002; Warschauer, 2002). Within this framework, as it is known, age seems to be one of the most discriminatory socio-demographic variables, to the benefit of young people.

In recent years, the increasing focus of international and European policies on the theme of active ageing<sup>1</sup> has provided a second framework, according to which it is now possible to contextualize the adoption of ICTs within a far broader scenario – that of the progressive ageing of European populations (European Commission, 2011). Following the latest sociological research debate (Riva, Ajmone Marsan & Grassi, 2014), active aging 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 subjective and socially rewarding ageing. Hence, the specific objective becomes to determine what «active aging» really means –from the point of view of the subjective, intersubjective and collective opportunities–, in relation to practices, ideas, values and cultural perspective. Today the role of media and communication technologies in improving the quality of life (Sourbati 2008), health (European Commission, 2011) and care (Olve & Vimarlund, 2006) of the elderly is a key issue in the academic discussion on ageing. In particular, there is discussion on the role of ICTs in the life of the elderly: if it is true that ICTs are a useful resource for the elderly to improve their health, care and social life (Selwyn, 2004), it is equally true that recent researches are uncovering risks and showing the dual role of the ICTs in daily life of the elderly (Aroldi & al, 2014).

The adoption of ICTs by the elderly is a well established area of research in countries like the US (Saunders, 2004), the UK (Haddon, 2000) and Scandinavian countries (Naumanen et al, 2009), where the penetration of the Internet into the home environment occurred early and rapidly, involving a significant portion of the older population. In comparison to other, more digitalised countries, Italy seems to have suffered a delay of around ten years (ISTAT, 2013), which makes it all the more urgent that we start to question the factors that influence (or hinder) the adoption and domestication of ICTs (Silverstone & Hirsch, 1992) by the elderly population and the real ability of digital technologies and networks to provide cultural and relational resources that improve the quality of life of older people.

Based on this theoretical background, the research questions that guided our research project were as follows:

- 1) (a) What are the socio- demographic characteristics of elderly Italian Internet users?; (b) What factors are related to the use of ICTs by these older users?
- 2) (a) How are ICTs used and incorporated (Silverstone & Hirsch, 1992) into the everyday life of the elderly?; (b) How do they contribute to an improved quality of life and active ageing?



To this end, this article describes the main findings of a survey carried out as part of a larger national research project focused on active ageing in Italy (Riva, Ajmone Marsan & Grassi, 2014).

## 2. Material and methods

The research project is based on a survey conducted between December 2013 and January 2014 through a face-to-face questionnaire administered to a statistically representative national sample of 900 young elderly Italians aged between 65 and 74 years of age (selected according to a random, proportional, stratified division defined by region and by the size of the place of residence, divided into two sampling stages) <sup>1</sup>.

The questionnaire collected data related to information concerning family relations; health status; leisure time and cultural consumption; any past or present working condition; participation in any kind of volunteering or socio-political activities; social capital and social solidarity; family networks and friendships; values; representation of the elderly condition, and the economic status of respondents.

With regard to media use, the questionnaire aimed to investigate:

- Choice of technological devices (personal and domestic digital devices).
- The preferred times and amount of time spent using PCs and the Internet
- Ways of using PCs and the Internet (chosen places, platforms used and people involved).
- Types of activities carried out using PCs and the Internet.
- Ways of learning how to use PCs, online services and the Internet (places and people involved in the learning activity).
- Reasons for using 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).

## 3. Results

### 3.1. Possession and use of ICTs technologies: the socio-demographic characteristics of digitalized elders

In this section we will introduce the key findings of the questionnaire concerning the possession and use of digital media by younger elderly Italians, correlated with socio-demographic characteristics.

Firstly, it is significant to note that possession and use of digital media involve only a part of the sample, since only 21.3% of elderly Italians possess or use a computer (17.5% own and use a laptop, 16.7% own and use a desktop PC).

These data become more interesting if related to specific age groups (distinguishing between two age groups: 65-69 and 70-74) and gender. Men aged between 65-69 own and use computers and the Internet significantly more than elderly women: women over 65 who have never used the Internet comprise 81% of the sample, compared to 65.6% of men.

Interestingly, the difference between men and women is less relevant than it is in relation to other technologies: although it is true that all devices (PCs, laptops, smart-phones, MP3, game consoles) are available and used more by males than by females (with a forked variable between the two genres), two devices (namely iPad and eBook reader) are an exception. Percentages of elderly males and females using tablets (including iPads) and eBook readers are very similar: respectively 6% of men versus 3.8% of women use tablets and 1.9% of men versus 1.5% of women use eBook readers. Given that tablets, iPads and eBook readers are new technologies and that «new users» tend to be women more often than men, this shows a likely phenomenon of leapfrogging. A significant number of elderly users who start to use ICTs when they are older than 65 (especially women) do so by using a new generation of technologies but skipping previous technologies (PC-laptops). 20% of elderly female users claim to access the Internet using mobile devices, compared to 8.5% of men, who are more often traditionally rooted, preferring to use desktop devices.



Analysing the characteristics of digitalized elders in more detail, 45% of the elders who use computers today started using them before they turned 50, 28.2% started between 50 and 59 y.o.a. and 19.1% between the age of 60 and 64. Only 9.1% of users are «new» ICTs users (who started using a computer after the age of 64), with a significant difference between males (6.8%) and females (12.8%).

In terms of the preferred locations of Internet access, home is regarded as the best place, with 98.8% of users citing domestic connections and, in second place, 15.3% of connections at work (among our sample with Internet access). The elderly usually access the Internet by themselves, with a significant proportion of seniors accessing the net with the help of their partner (19.2%), their children (17.6%), or their grandchildren (4.7%). As far as learning processes are concerned, 49.8% of users stated that they had learnt to use a computer at work, with a significant difference showing between males (57.8 %) and females (37.6 %): if most males learned at work, the proportion of women who learned how to use a computer by attending courses offered by organizations or associations, or municipal institutes, is substantially higher (22.8%) than that of men (14.3%). Males seem to have a more solitary learning approach, which is either practical (45.5% vs. 40.6 % of women) or guided by self-learning manuals (14.9% vs. 6.9%). Conversely, in addition to courses, women make more use of the help of younger friends or relatives (36.6% vs. 31.2 % of males) or peers (9.9% vs. 2.6%).

As far as SNSs use is concerned, a significant number of elderly Internet users joined Facebook and Twitter. In particular, 27.9% of male and 28.9% of female Internet users are on Facebook, while 11.5 % of male and 6.7% of female Internet users are on Twitter. It is noteworthy that, the users who access these tools use them very often: 46% of elderly male and 73% of elderly women with a Facebook profile use it every day.

Hence, there is a significant gender difference, with women being particularly heavy users of Facebook. Furthermore, SNSs use is strongly influenced by the differences between the two identified age groups: while 31,8% of the 65-69 year old sample use Facebook, the percentage drops to 21.1% in those aged between 70-74 years of age.

Moving away from the topic of allocations to the use of ICTs, an interesting point emerges in relation to the frequency of use. 71% of the elderly who access the Internet do so almost every day. As further evidence suggests, 58.8% of the elderly state that they access the Internet at any time of the day, but probably only when it is needed for something useful.

Having introduced and described the main characteristics of the digitalized elders (our first research question), let us now introduce the factors that are either positively or negatively correlated to the use of ICTs by Italians between 65 and 74 (question 1b),

To answer this research question, we proceeded to build some indices that would outline the socio-economic status of the elderly. These indices were then crossed with the synthetic indices that describe the technology used – i.e. the use of the PC and the Internet, and participation in SNS - in an attempt to link the most significant correlations between allocation and use of information technology and the personal condition of the elderly users. The following table records the most significant correlations, between the indices used.

<b>Table 1: Correlation table with the most significant indices related to socio-demographic characteristics and the use of ICTs - Chi Squared distribution</b>			
	<b>TECHNOLOGICAL EQUIPMENT<sup>2</sup></b>	<b>PC &amp; INTERNET USE<sup>3</sup></b>	<b>USE OF SNS<sup>4</sup></b>
Working condition <sup>5</sup>	.195*	.18*	(.109) (SL=,009)
Status <sup>6</sup>	.467*	.467*	.338*
Base: Elderly Italians aged between 65 and 74 years of age. All indices are recoded in three categories (N=900; *Significance level SLI=.000).			

Status appears to be significantly correlated to technological equipment, the use of PCs and the Internet, and the use of SNS. Working condition appears to be rather weakly correlated to both the



adoption of digital technologies and their use. There is no significant correlation between working condition and social networks, nor between marital status and indices related to new technologies. Furthermore, it is also interesting to note that, unlike the relation to technological equipment, differing employment status affects the use of social networks relatively little, in fact, amongst our elderly interviewees, Facebook appears to be a niche service that is transversal and less affected by the differences between workers and non-workers.

### 3.2. Possession and use of ICTs, well-being, active ageing

In this section we consider a number of indices that describe the quality of living conditions and the activity of older people from different points of view in relation to the use of ICTs. These indices relate to cultural and media consumption, health status, perceived seniority, physical activity, social capital, the intensity of relationships, intergenerational solidarity and individual and overall satisfaction in relation to the quality of their lives. These indices were then crossed with the indices that describe the technological equipment the use of a PC and Internet, and participation in SNS, in order to capture the most significant correlations between allocation and use of information technology, and overall quality of experience and activity of the elderly.

Beyond the allocation and use of PCs and the Internet, it is interesting to investigate how the possession and consumption of digital media fits into the concept of media diets and the broader cultural consumption of the elderly. Within the broader scope of analysing the leisure activities of the elderly, it is interesting to investigate whether the media diet of our sample presents any dynamic examples that feature the replacement / integration of old and new communication media.

**Table 2: Correlation table with the most significant indices related to cultural consumption / use of media and the use of ICTs – Chi Squared distribution**

	TECHNOLOGICAL EQUIPMENT	PC & INTERNET USE	USE OF SNS
Cultural consumption <sup>8</sup>	.421*	.444*	.307*
Media fruition <sup>9</sup>	.276*	.296*	.209*

Base: Elderly Italians aged between 65 and 74 years of age. All indices are recoded in three categories (N=900; \*Significance level - SL=.000).

This correlation table shows some interesting results: the use of technology, of PCs, the Internet and SNS were all significantly correlated with indices of cultural and media consumption. A culturally active life is linked to intensive use of digital media, just as the use and consumption of digital media does not replace old media, but rather links this usage to a high use of media (both in terms of time and variety of means). In particular, the index of cultural consumption is strongly correlated with the index of technological equipment, confirming the relationship between (economic and cultural) well-being of elderly individuals and access to the digital world.

Shifting from economic well-being and status towards a broader reflection on the concept of psycho-physical relationships, the following table accounts for Spearman's correlation coefficient ( $r_s$ ) of the most significant correlations (direct or inverse) between the indices used to define the quality of life and those relating to the use of ICTs.

**Table 3: Correlation matrix comparing the most important indices relative to the quality of life and the use of ICTs – Spearman Correlation**

	TECHNOLOGICAL EQUIPMENT	PC & INTERNET USE	USE OF SNS
Physical activity <sup>10</sup>	.319*	.332*	.246*
Number of friends	.229*	.234*	.155*
Perceived age <sup>11</sup>	-.136*	-.146*	-.120*



Personal satisfaction <sup>12</sup>	.133*	.125*	(.046, SL=.170)
General social capital <sup>13</sup>	.105*	.114*	(.059, SL=.076)
Propensity towards intergenerational relations <sup>14</sup>	.127*	.120*	(.091, SL=.006)
Intergenerational family solidarity <sup>15</sup>	-.110*	-.103*	(-.073, SL=.029)
Base: Elderly Italians aged between 65 and 74 years of age. All indices are recoded in three categories (N=900; *Significance level-SL=.000).			

It is noteworthy that the most significant direct correlations, with regard to technological equipment, the use of PCs and the Internet and the use of SNS, appear to be those relating to the index of physical activity and number of friends, while the most significant inverse correlation concerns the users' perceived age. It is also possible to detect a correlation between technological equipment and the use of PCs and the Internet when compared to the indices of individual satisfaction, social capital and propensity towards intergenerational relations. However, the values indicate an inverse correlation with respect to intergenerational family solidarity. In addition, compared to these indexes, the use of SNS seems to be correlated to a lesser extent and not particularly meaningful. Finally, there are no significant correlations between the use of SNS and the indices of personal satisfaction, social capital, or intergenerational relations.

Overall, the data indicate that the possession and use of ICTs is more likely to accompany an elderly condition characterized by good levels of physical activity, a large number of friends and a low perceived age. General social capital is also a significant element of this condition, as is the propensity for intergenerational relationships, while family solidarity is not.

A second means of assessing the importance of ICTs in the context of the activity of young elders is based on the cluster analysis; the five clusters were identified and their weight in the sample calculated as follows (Rossi, Bramanti & Moscatelli, 2014):

CLUSTER N°	DESCRIPTION	% OF SAMPLE
1°	Women ... precociously aged	20.6
2°	Couples who enjoy their pension!	31.4
3°	Supportive extended families	11.2
4°	The sociable elders	21.3
5°	The busy elders	15.5
Base: Elderly Italians aged between 65 and 74 years of age.		

The first cluster, equal to about one-fifth of the sample, consists mainly of women aged between 70 and 74 with low socio-economic status, few health problems and limited social relations, who are at risk of exclusion. The second and largest cluster (almost one-third of the sample), includes mostly retired couples, with an average income, relatively low in status, who are in good health and have a good network of friends and family, but cultivate few interests or forms of social engagement, with the exception of an average level of physical activity. The third cluster of older people is the smallest (slightly more than one in ten), who live in extended family households, or in the presence of adult children at home because they are strongly committed to their children and grandchildren. This cluster is found more in the south of Italy and is characterized by a low income status, even when compared with the low general average, and represents an approach to active ageing that almost seems to continue on without distinction from the middle stage of life. The fourth cluster, the «Sociable» elders, constitutes more than one-fifth of the sample and is characterized by a dense network of friendships, parental and neighborhood relations and a high personal and relational satisfaction index. These individuals do not yet perceive their age as a limit and confirm a high level of physical activity. Finally, the «busy» elders confirm a 360° activity level. These individuals are mostly men between 65 and 69 years of age, who are still engaged in high status and high income



employment, and invest in the support of younger generations, participate in club activities, do exercise and nurture high levels of confidence in others and of social solidarity. The survey index of PC and Internet use in the five clusters is as follows:

CLUSTER N°	DESCRIPTION	USAGE INDEX FOR PC'S AND THE INTERNET	% IN THE SAMPLE	% IN THE CLUSTER	T VAL-UE	PROB
1°	Women ... precociously aged	Nil	73,13	93,70	7,91	0.000
2°	Couple who enjoy their pension!	Nil	73,13	80,67	3,39	0.000
3°	Supportive extended families	Nil	73,13	92,25	4,89	0.000
4°	The sociable elders	Limited	7,78	10,53	1,39	0.082
5°	The busy elders	High	19,09	73,97	15,82	0.000

As is shown, ICTs are irrelevant for both older women who are exposed to the risk of exclusion (1st cluster), and for spouses who are fully involved in family support within the context of a low-mid socio-economic background (3rd cluster); their presence is nil or limited with relation to both pensioner couples dependent on the private sector (2nd cluster) and the most Sociable individuals (4th cluster). The presence of ICTs use is notably higher and more significant to the «Busy» elders (5th cluster), especially for those who enjoy higher levels of activity, are often still involved in the working world and have a strong «generative dimension which includes the family and social area [...] and identifies a profile of individuals who enjoys good overall satisfaction» (Rossi, Bramanti & Moscatelli, 2014).

Finally, some indication of the perception of the role of ICTs in defining the quality of life of older respondents is derived from a battery of questions, which describes the changes felt while using Internet. 63.7% of older users noted positive changes with regard to the cognitive dimension (information on current affairs and personal interests), while 36.3% refer to positive changes in the sphere of relationships («I stay in touch with my friends and family») and the overall perception of their own activity («compared to my peers who live without the Internet I feel more active»). For many respondents the Internet is a knowledge resource used in relation to health and wellbeing (40.3%) and in gathering information relative to the treatment of their diseases (29.9%). Other areas of perceived change affect the concept of time management: about 25% say they watch less television, but only 13.5% said they spend too much time on the computer and about 8% stated they had become more sedentary and / or pass more time at home; the incidence of those who think they spend less time with their loved ones (2.2%) is even lower.

Another aspect, which is not negligible, even though it affects a distinct minority group, is the problem area of fears related to the use of Internet: some elders fear making mistakes, or that their privacy will be violated (over 20%), or fear that they are not able to assess the reliability of online sources (18.7%). Finally, although the use of the Internet is generally accompanied by a perception of increased activity and social interaction, participation in online and offline activities still remains a minority practice (from the 12.5% of those who feel «more active in the life of my local community / community / neighborhood», to the 4.1% who express their opinions more freely in SNS).

## 4. Discussion and conclusion

The results of the survey presented here show how:

- Question 1a) the digitalized elderly feature as a (significant) minority in the Italian population aged between 65 and 74, and share highly specific, distinctive demographic and relational characteristics in relation to their non-digitalized counterparts, with a stable economic



and employment condition coming first, followed by a higher level of education, as well as a satisfying relational context and good levels of physical activity.

- Question 1b) the domestic context seems to be crucial to the adoption of new technologies and influences their «good use»: the home is the place in which most elders' media consumption develops, including uses related to new media (V27 Where access PCs, V32.1 Access to the Internet: at home). Media consumption by the elderly is developed within both temporal and spatial contexts, and produces processes of media domestication and routine that are shared / negotiated within the family. Beyond the biological fact of age, there are other stories (personal, work, family, generational) that influence the domestication of technology. Completed professional experiences, relationships with family, and even the spatial organization of the home, are all factors that strongly influence access to and the use of ICTs.
- Question 2a) the Internet is extensively and continuatively used by our digitalized elders. The majority of the (few) younger elders who access the Internet are in fact heavy users. Accessing the Internet is a common practice rooted and incorporated into the everyday life of our sample: once they have crossed the threshold of Internet access, users become mature users in all respects and are no longer occasional visitors.
- Question 2b) the possession and use of ICTs is more likely to accompany an elderly condition characterized by good levels of physical activity but some answers to our questionnaire (V38: «Since using the Internet...») have pointed out that prolonged and excessive use of the Internet, alongside w a number of positive changes, is sometimes identified by elders as a problem in relation to their family life, their previous routines, and the potential activities now no longer carried out in favor of the Internet.

Amongst the potential signs that reveal the ambivalent role of ICT, is that, in some cases, ICTs are used in an attempt to resolve difficulties. In an apparently paradoxical comparison, although the correlations are not significant, the use of SNS is inversely correlated to the relational satisfaction index ( $r_s = -.067$ ;  $SL = 0.45$ ) and is only weakly related to social capital indices, when compared to the use of PCs and the Internet. This would almost seem to indicate a compensatory use of SNS due to a network of weak or unsatisfactory social relations rather than an online investment countered by a strong social capital offline.

These results help to contextualize the phenomenon of the progressive digitalization of older Italians in terms of the «classic» dynamics of the digital divide, which are influenced by socio-economic dimensions (Loges & Jung, 2001; Smith, 2014). Thus, wealthier elders, with a greater cultural and social capital, and who started to use computers during their professional working career, are characterized by increased susceptibility to possession and use of ICTs. This is a phenomenon –that of the digital divide related to income– that significantly characterizes the early stages in the spread of ICTs significantly. In poorly digitalized segments such as that of the elderly Italian population, ICTs courses seem to have spread by «traditional» means, resulting in processes of exclusion based on income, and social and cultural capital (Van-Dijk, 2005).

Hence, we are faced with an increasing polarization and radicalization of the haves and have nots, in which a sizable chunk of young elders is disconnected and risks marginalisation (due to broader social factors), while for a minority of more affluent users (economic and social), digital media has penetrated everyday life with extreme force, in terms of both the time spent on and economic and relational investment therein.

In truth, things could change in the coming years: the arrival of a new generation of elders who grew up in a more digitalized, computerized society (including their professional sphere) than their predecessors, may dilute the centrality of income and status levels in determining the phenomenon of the digital divide. From this point of view, the generational approach on one hand (Aroldi & Colombo, 2013; Loos, 2011) and the repetition of this survey after a number of years could clarify the direction this phenomenon will take.

With regard to the relation between ICTs and well-being, at the present stage of this research it is not possible to indicate whether the adoption of ICTs guarantees inclusion and participation. The



transverse diffusion of technology amongst older people probably does not automatically determine greater well-being for all: the issue of ICTs adoption and active ageing requires further investigation, before we can understand the role played by ICTs in the daily life of the elderly and their relational, spatial and temporal organization in domestic contexts (Haddon, 2000) fully. Using the domestication theory framework and an ethnographic approach, we are undertaking a second phase of our research with a qualitative approach in order to investigate the subjective dimension of the perceived role of ICTs and personal story of «conversion» (Silverstone & Hirsch, 1992) of ICTs into tangible meanings and values that contribute to the quality of the elderly everyday life. Finally, some considerations in terms of policies and education. As our results suggest, active ageing cannot be simplistically defined by the possession of technological devices or their use (Dickinson & Gregor 2006): active ageing signifies «quality of life» that could also be related (but not determined by) the many uses of ICTs. These results suggest the necessary development of inclusive digital policies and education programs that take into account the risks and benefits, as well as the complex role played by ICTs. The processes of digital inclusion should aim to promote the «good use» (conscious, careful, thoughtful, moderate, unperturbing relational contexts) of ICTs and not simply the diffusion of computers, tablets and smartphones to deal (deterministically) with age related problems.

## Notes

- <sup>1</sup> 1,600 names are extracted from electoral list of 90 municipalities, using the systematic method. 900 are the repondentes. Error sample: 3%. Confidence error: 0.05%.
- <sup>2</sup> This index consists of the elaboration of answers related to questions on the possession and use of ICTs (Laptop or Netbook, Desktop computer, tablet, e-book reader, Smartphone, WiFi, MP3 player).
- <sup>3</sup> Questions related to the frequency of PC use and the nature of the activities effected (copying-moving files or folders, using 'copy-paste', calculating formulas in spreadsheets, transferring files from a PC to other devices, using e-mail, playing online games, reading the news, referring to Wikipedia, blogs, forums, community-produce UGC, searching for information related to on daily life and health, performing administrative, shopping online)
- <sup>4</sup> Responses regarding the use of Facebook, Twitter, LinkedIn, YouTube and related services (chat, shares, comments).
- <sup>5</sup> Works/does not work.
- <sup>6</sup> Responses regarding the professional activity and level of education of the respondent, their partner and father.
- <sup>7</sup> Single, Married, Widowed, In a Domestic Partnership, Separated / Divorced.
- <sup>8</sup> Responses regarding the frequency of reading books and of going to concerts, shows, museum, lessons.
- <sup>9</sup> Responses regarding the frequency of viewing, listening and reading of television, radio, newspapers, and weekly publications.
- <sup>10</sup> Responses regarding sporting activities, outdoor activities, dancing, travelling etc.
- <sup>11</sup> Responses regarding the subjects' reflexive perception of their age.
- <sup>12</sup> Responses regarding individual satisfaction in relation to income, health, work, place of living and spiritual elements.
- <sup>13</sup> Responses regarding the interest shown in and trust in others (fellow countrymen, foreigners, Europeans, disabled, children, the unemployed, the elderly).
- <sup>14</sup> Responses regarding the opinion on the desirability and dynamics of collaboration between older and younger users.
- <sup>15</sup> Responses relating to opinions on mutual responsibility between parents and children.
- <sup>16</sup> The statistical software used for clustering is SPAD, that produce cluster with a two step clustering [see Lanzetti (1995), 81-99)].

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