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University Senior Students on the Web

Mayores Universitarios en la Red

ABSTRACT
The Internet is increasingly prominent in all walks of life, and Web connection is a key factor in social integration. The rise in life expectancy and quality of life mean that our active seniors now represent a growing sector in society. This study analyses what senior citizens use the Internet for and why, as well as the main benefits of its usage and the perceived obstacles of those who are non-users. The results derive from a questionnaire completed by senior citizens enrolled on university courses for older people, and they show that university seniors frequently connect to the Internet –daily or 2 or 3 times per week–, and use it mainly to look up facts, contact family and friends, for course work and to read the press. They consider the Internet easy to use but they could survive without it. For those who do not have access to the Internet, lack of knowledge about how to use it is the main barrier; yet they do not consider themselves incapable of learning how to use the Internet if they wished to do so. The data gathered from the survey challenge negative stereotypes of older people, and encourage us to modify our view of active seniors as disconnected from and incapable of using the Web and instead see their progress and motivation to learn as something highly positive.

RESUMEN
Hoy día la relevancia de Internet es cada vez mayor en todos los ámbitos. Participar en la misma es fundamental para estar integrados socialmente. El aumento de la esperanza y la calidad de vida conllevan que los mayores activos supongan un volumen significativo de la población. En este trabajo se analiza el uso que personas mayores activas realizan de Internet, así como los principales beneficios o motivaciones de su utilización, y las barreras que encuentran aquéllos que no la utilizan. Se administró un cuestionario a personas inscritas en programas universitarios de mayores. Los resultados muestran que estos mayores universitarios se conectan a Internet frecuentemente, a diario o entre dos o tres veces por semana. Se destaca la relevancia de Internet para estar actualizados, contactar con la familia y los amigos, el uso académico, y consultar la prensa. La consideran fácil de utilizar aunque afirman que podrían vivir sin ella. Por otro lado, para los que no acceden a Internet no saber utilizarla es una de las principales barreras, si bien las personas que no la utilizan consideran que serían capaces de aprender. En su conjunto los datos animan a romper estereotipos negativos sobre los mayores y a no considerar a los mayores activos como personas incapaces o desconectadas de la Red sino a valorar positivamente los avances que realizan y la motivación por aprender.

KEYWORDS / PALABRAS CLAVE
Internet, elderly, university, ICT, technology, social inclusion, stereotypes.
Internet, mayores, universidad, TIC, tecnología, inclusión social, estereotipos.

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1. Introduction

The influence of Information and Communication Technologies (ICT) is increasingly evident worldwide as they permeate all aspects of our lives, from interpersonal communication to education, politics, health and the economy. The arrival and consolidation of ICT in our daily lives is undoubtedly one of the most distinctive features of these times (Cabero & Aguaded, 2003), as evidenced by the interest in and recognition of ICT by international organizations ranging from the European Parliament and Council of Europe, UNESCO and the UN (Aguaded, 2009; 2010a; 2010b).

The most important of these ICT is the Internet, whose influence on society has been immense. Internet has caused a true social revolution with its widespread use. It has transformed the exchange of knowledge and information, enabling access to any resource anytime anywhere. Internet allows us to perform any number of tasks traditionally associated to other technologies. We can talk and communicate, read, listen to music, watch films and television programmes; in short, it allows us to carry out a wide range of functions and activities. Internet also lets us interact with it in a passive way, like with other media such as television, or manage it in a more active way. The user can now interact with such media and this interaction is limitless. But Internet is not just about information transmission; it has become a potent socialization tool, a disseminator of ideas and values (Fainholc, 2006; Xavier & Cabecinhas, 2000). And just as with television, cinema and videogames in their time (Núñez & Loscertales, 2008; Loscertales & Núñez, 2008; Carnagey, Anderson & Bushman, 2007), Internet arouses curiosity and concern regarding the values that can be propagated via the Web and the impact it has on society. It potentially offers benefits and drawbacks in equal measure, and the scientific community is not immune to such debate. To take just one example of scientific interest in the Internet, the prestigious Annual Review journal has dedicated several issues to the Internet (Bargh & McKenna, 2004; Skitka & Sargis, 2006; Bennett & Glasgow, 2009; Strecher, 2007).

With the arrival of Internet, the main interest and concern of parents, professionals and society is the impact of the media in general and of the Internet in particular on children and young people (Villani, 2001). The influence of the Internet on the young has been analysed with some urgency as they are deemed to be the most vulnerable members of society. Numerous studies have tried to pinpoint the positive and negative effects of the Internet, and determine how young people use the Web (Livingstone & Helsper, 2010; Yang & Tung, 2007).

Although such attention is warranted as young people represent the future, this should not be at the expense of research into senior citizens and their attitude towards the Internet since they now represent an increasingly relevant sector of society. The number of senior citizens worldwide is on the rise, and in Spain they are already a considerable force in today's society, and will be even more so in the future (IMSERSO, 2009).

The Internet can provide senior citizens with innumerable potential benefits, helping to promote creativity, writing, sociability, memory, to communicate more and learn things they were unable to study before, etc (Pavón, 2000). However, senior citizens tend to be stereotyped negatively as being less capable of performing activities in general (Cuddy, Norton & Fiske, 2005), an attitude that extends particularly to technology (Cutler, 2005).

Old age is frequently cited in relation to the digital divide, which is defined as the inequalities in Internet access and the extent to which it is used, knowledge of the Web and its technical properties, social support and the ability to evaluate the quality of information and the diversity of its uses (DiMaggio & al., 2001).

We believe we should not subscribe to a negative association between senior citizens and Internet use. This negative viewpoint tends to cling to old people when they are perceived as disabled, inactive or suffering from some form of cognitive deterioration (Sheets, 2005; Manna, Belchiorb, Tomitac & Kempd, 2005; Slegers, Van Boxtel & Jolles, 2009). Not all senior citizens are disabled or inactive. The rise in life expectancy and quality of life mean that more and more elderly people stay active for longer and continue to offer a lot to and receive from society. As Gatto & Tak (2008) point out, technological progress makes it essential to find out how senior citizens use these technologies, and the barriers and benefits they perceive in these technologies to be able to adapt them to their own needs. However, as we have already indicated, scientific research into senior citizens and new technology is insignificant when measured against output for young people (Selwyn, Gorard, Furlong & Madden, 2003) and has tended to concentrate on seniors who are inactive (Hernández-Encuentra, Pousada & Gómez-Zuñiga, 2009).

This is a study of active senior citizens enrolled on university courses for older people at the University of Sevilla as part of its Aula de la Experiencia (Classroom of Experience) programme.

The aim is to analyse what active senior citizens use the Internet for, what motivates them to use the Internet and the main benefits of its usage, as well as the obstacles encountered by those who do not use the Web.

2. Method

2.1. Procedure and participants

The study analysed 165 senior citizens enrolled at the University of Sevilla on the Aula de la Experiencia programme which was developed by the university with the backing of the local Ministry of Equality and Social Welfare. This is a scientific-cultural and social programme aimed at people over 50, and is a good example of older people who want to keep active, having enrolled on a series of courses that promote scientific and cultural knowledge, and interpersonal relations among fellow students who are sufficiently motivated to sign up to the programme.

We enlisted the help of the university lecturers to distribute and gather in a questionnaire that the course participants completed, anonymously and voluntarily, regarding their use of new technologies.

Of the 165 participants in our study, 33.3 % were men and 66.7% were women. The average age was 62 with a standard deviation of 5.46. The majority of participants, 56.7%, were either married or lived with a partner, 22.6% were widowed and the rest were separated, 11%, or single, 9.7%.

We wish to highlight the vital importance of the Internet as a tool that generates social inclusion; Internet outsides are unable to take advantage of its myriad possibilities which leads to social exclusion and marginalization. Senior citizens are an important sector in today's and tomorrow's society, so their participation in the information society is crucial. The positive effects of their access to and usage of the Internet are many, both for them as individuals and for society at large.

2.2. Materials

An ad-hoc questionnaire that was voluntary and anonymous was used to obtain information on Internet use. We adapted the questionnaire in line with the recommendations of certain authors who had previously gathered data from older people, by using a larger font size (14 point) and greater spacing to make the document clearer to read (Boechler, Foth, & Watchorn, 2007). The questionnaire was designed to collect data on the following:

a) Socio-demographic information: the questionnaire asked the participant to state age, gender, civil status and educational qualifications.

b) Familiarity with the Internet. Certain indicators were used to collect information on participants' familiarity with the Internet, such as whether they used the Internet or not, how long they have been using the Internet and a computer for, if they had an Internet connection at home, what device they used to connect to the Internet and how frequently they used it, how they learnt to use computers, a self-assessment of their knowledge of the Internet, how they rate the Internet as a source of information (main source, secondary but important, secondary but unimportant, Internet not used as a source of information), whether Internet usage reduces the time spent on other activities, if they use it to search for information on health issues, to look up and communicate with friends, or if they had ever been so absorbed on the Internet that they had lost all sense of time.

c) The benefits of and motivation for using the Internet. To know how senior citizens perceive the benefits of the Internet and their reasons for using it, we asked them to grade 11 indicators on a 5-point scale ranging in opinion from total agreement to total disagreement. Examples of these indicators include: I find the Internet easy to use; Internet helps me to keep up-to-date; I have made new friends on the Internet; I like the anonymity of the Web; I cannot imagine my life without the Internet.

d) To know what senior citizens use the Internet for, we asked them to grade 25 indicators on a 4-point scale of responses: daily, weekly, monthly, never. Examples of these indicators include: e-mail, chat

rooms, information search, music and film downloads, online banking, reading newspapers, discussion boards, phone calls.

e) The obstacles faced by those who do not use the Internet. To know the obstacles faced by non-Internet users, we asked the non-users to rate 16 indicators on a 5-point scale ranging in opinion from total agreement to total disagreement. These indicators include: I am not interested in the Internet or it does not motivate me; I am too young or too old to use the Internet; I don't know how to use the Internet; I don't have access to Internet at home

This study shows what senior citizens use the Internet for and why, and the main obstacles that hinder non-users. We find that senior citizens are optimistic and motivated, in that many already use the Internet, while non-users feel they are capable of learning how to use it if they chose to. As members of society, we have a shared responsibility to help those who already use the Internet to make the most out of it, and instruct them on functions and areas which they can explore to expand their knowledge. We are also bound to give those non-users that initial push to get them started.

3. Results

Descriptive analyses and the Chi square test were used to analyse the results.

3.1. Familiarity with the Internet

Of those surveyed for familiarity with the Internet, 64.4% defined themselves as users while 35.6% said they were non-users. The users stated they had started using a computer before venturing onto the Internet. They had been using a computer for an average of 12.01 years and the Internet for 7.88 years, and 100% of users had an Internet connection at home. Connection to the Internet in 98% of cases was via a computer, with link-up by mobile phone, television, personal digital assistant (PDA) and video game consoles negligible. Chi square test analysis showed that users connected to the Internet every day or two or three times a week ($X=96.580$; $p<.001$), based on four possible responses (every day, two or three times a week, once a month, never). When asked about how they had learnt to use the Internet (self-taught, family, courses, friends, others) the results showed that the family followed by self-taught as the most common factors ($X=54.701$; $p<.001$). Most participants' self-assessment of their computer knowledge (beginner, average user, advanced, expert) was either beginner or average user ($X= i72.601$; $p<.001$). The Internet was classified as a secondary but important source of information ($X=102.789$; $p<.001$) by those polled, from four possible options: main source, secondary but important, secondary but not important, I don't use Internet as a source of information. In terms of information search, 68.2% used the Internet to read up on health issues. When questioned about personal contact, 54.6% said they used the Internet to keep in touch with family members, followed by friends or colleagues (31.8%), while 13.6% stated that they did not use the Web to communicate with people. The seniors were asked whether Internet usage reduced time spent on other activities (friends, sleeping, work, studying, television, sports, family, radio, reading the press, other activities), of which television followed by sleeping were cited as losing out to Web use ($X= 112.326$; $p<.001$). The participants were also asked about the sensation of losing all sense of time when on the Internet (hardly ever, sometimes, quite often, almost always); 61.1% said they had hardly ever experienced losing all sense of time when on the Internet and 35.6% said they had sometimes lost all sense of time.

3.2. Benefits of or motivations for using Internet

Those surveyed declared that, in terms of the main benefits of the Internet and their motivations for using it, they found the Internet to be a useful tool that helped keep them up-to-date and that it was easy to use. However, they insisted that they could live without it. They also stated that they did not use the Internet to meet new people or to find people with similar interests or concerns; neither did they believe it

was easier to express themselves via the Internet rather than speaking face-to-face. They were not comfortable with the anonymity of the Web, and had issues with Internet privacy (X=513.416; p<.001).

3.3. What do they use the Internet for?

The results show that the participants use the Internet principally to search for information, then to check e-mails, for course work, to read the press and to navigate for no particular reason and, to a lesser extent, to share photos and for online banking (X= 974.406; p<.001). The users send an average of 15.83 e-mails a week and receive 27.71.

3.4. Internet's non-users

The results were statistically significant for those participants in the survey who stated that they did not use the Internet, in terms of the obstacles they face as non-users (X=569.373; p<.001). They stated that their non-use of the Internet was not due to old age, or to the lack of time or because they were in bad health. Nor did they attribute their non-use to being unaware of what the Internet could be used for, or to the difficulty in finding a place to use the Internet. They said they had no home access to Internet and did not know how to use it, although they considered themselves capable of learning how to use the Internet if they put their minds to it.

4. Discussion

The aim of this study was to analyse the use made by active senior citizens of the Internet and to know what they considered to be the main benefits of and their motivations for using the Web, as well as the obstacles faced by non-users. For this study, we recruited senior citizens who had enrolled on university courses specifically for older people, and we now present the main conclusions from the results obtained from the data.

We note that the Internet users already had previous knowledge of computers, which was a significant factor in leading them to use the Web especially as virtually all the survey participants used their computers to connect to the Internet at home, with no other devices cited. As Hernández, Pousada and Gómez (2009) have shown, older people prefer to use a device for the specific reason it was purchased; for example, a phone to make and receive calls, a television to watch programmes and Internet connection only via the computer. However, we believe this attitude could change once the user becomes familiar with various devices and the new functions they were designed to be used for. All participants had Internet connection at home and generally used it once a day or several times a week. They first learnt to use the Internet through family members or taught themselves. The family seems to have played a key role in encouraging these new users and in helping them to adapt to Internet use. The results clearly show that they do not use the Web to start new social relationships but to connect with family and friends. The Internet is viewed as a tool that helps them keep in touch. Scientific literature has frequently shown concern about whether Internet use contributes to to social isolation (Nie, 2001). Our results show that Internet use among older people does not lead to social isolation rather it allows these users to communicate with family and friends. This is supported by their response to whether Internet use deprived them of time spent on other activities; the participants stated that their use of the Internet did not mean a reduction in time spent with family or friends, only less time spent watching television or sleeping.

It is noteworthy that the Internet was not used to join discussion boards to exchange opinions with other likeminded citizens. This is an area that could be promoted further since virtual communities can be of support to and have a positive effect on those who take part (Katz, Rice & Aspden, 2001; Ellison, Steinfield & Lampe, 2007).

Another interesting fact was that the Internet was considered an important but secondary source of news and learning. The participants stated that the Web enabled them to keep up-to-date and that they used the Internet to search for information, for course work, to read the press and also to navigate for no particular reason. We think that this motivation to use the Web as a learning and information tool is highly positive since the Internet allows the user to access a vast and wide range of information. However, we believe there is a greater need than ever for media literacy instruction to enable this type of user to filter information more critically on the Web. This is particularly relevant in light of the fact that a large majority of those polled stated that they use the Internet to search for information on health. Internet could be a useful tool for providing health-related information (Tse, Choi & Leung, 2008) although the quality of information often varies (Morahan, 2004). Hence, the need for instruction in media literacy, especially in matters of health, to enable the user to evaluate the credibility of the information found and to help the user to search more diligently.

Older people use the Internet primarily to look for information and, to a lesser extent, to read and send e-

mails, for course work, to read the press and navigate for no particular reason, to share photos and for online banking. We believe that they use that latter type of functions less because of worries over anonymity and privacy on the Internet. Indeed, with regard to online financial transactions confidentiality is a common concern cited by the majority of users (Suh & Han, 2003). We think this concern will diminish as online security increases and the users become more familiar with the Web. As regards privacy, this is a distinctive feature of the Internet, but also highly controversial in generating both positive and negative effects (Christopherson, 2007).

As previously mentioned in terms of improving the user's ability to screen information on the Web, instruction in media literacy can enable the user to distinguish between contexts and to weigh up the advantages and drawbacks of anonymity and privacy, and to use the Internet with a greater sense of security for transactions and interactions on the Web.

Our study also deals with elderly non-users of the Internet whose numbers are still significant. However, it is important to point out that they do not attribute their non-user status to age or ill health but to not knowing how to use the Internet and having no connection. They consider that they would be able to learn how to use the Internet if they decided to do so. It seems that they only need a gentle push to get started. This is very important because, as we state in the introduction, older people are negatively stereotyped in terms of their ability to use technology (Cutler, 2005).

The fact that older people are optimistic about their ability to learn and that they do not consider age to be a barrier should help to break down the stereotype that links old age to incapability. We agree with Rodríguez (2008) in that old age is a stage in life that nobody prepares us for, and for which it is necessary to find and affirm different behaviours to the traditional stereotypes of senior citizens when using technology. We believe that the data in our study reveal that active senior citizens do not see themselves as conforming to this negative stereotype.

Future research could focus on comparing various age groups with similar inactivity and disability levels to determine if the negligible Internet use seen among inactive older people is also found in data on younger people in a similar situation.

In sum, we wish to highlight the vital importance of the Internet as a tool that generates social inclusion; Internet outsides are unable to take advantage of its myriad possibilities which leads to social exclusion and marginalization. Senior citizens are an important sector in today's and tomorrow's society, so their participation in the information society is crucial. The positive effects of their access to and usage of the Internet are many, both for them as individuals and for society at large. This study shows what senior citizens use the Internet for and why, and the main obstacles that hinder non-users. We find that senior citizens are optimistic and motivated, in that many already use the Internet, while non-users feel they are capable of learning how to use it if they chose to. As members of society, we have a shared responsibility to help those who already use the Internet to make the most out of it, and instruct them on functions and areas which they can explore to expand their knowledge. We are also bound to give those non-users that initial push to get them started.

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