



Project FoSIBLE

Fostering Social Interactions for a Better Life of the Elderly



Responsible

Les Arcades

Deliverable

D7.4 – Psychological impacts of the system usage

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Abstract

This document reports on and summarizes the results of the psychological assessments that were conducted by Les Arcades between September 2012 and January 2013 during the FoSIBLE Project. It is part of workpackage 7 and corresponds with the task 7.5.

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1. Introduction

The advent of New Technologies represents a tremendous evolution for our society in the sense that it allows us to learn, be informed, be entertained, or communicate more easily by removing all ideas of distance and borders. It therefore provides a whole new way for our society to function.

At the same time, we are seeing a radical transformation in human behaviour in various environments: professional, family, educational, or social, and this regardless of sex, age, culture, etc.

Our society has evolved and new behaviours have appeared due to Information and Communication Technologies (ICTs).

The creators of Information and Communication Technologies have certainly brought about technological innovation, but this has also implicitly resulted in social innovations.

Since they are not from the computer generation, it is particularly interesting to look at the benefits of Information and Communication Technologies for Seniors and for the Smart-TV in particular.

2. Context and objective

The study was conducted by the psychologist at the AGIRCC – ARCCO Prevention Centre, Les Arcades, in Troyes, France, in order to provide insight into the impressions of senior citizens, following the installation of a Smart-TV in their homes.

At the time of their interviews with the psychologist, they had already received their Smart-TV allowing them to communicate with the outside world although the study had not yet begun, and they had received a briefing on the content of the study and how it fits into the overall FoSIBLE project.

The purpose of this report is to assess the seniors' interest in this study, what they expect, the relationship they have with ICTs, their reservations, and their confidence with the use of multimedia tools.

3. Methodology

A questionnaire for all participants was established (see appendix 1) which collected information on the participant, how the person is able to adapt to new technologies and their general attitude towards ICTs, how they experienced their participation in the study, and finally what they expect from the Smart-TV and how they expect to be able to use it.

The interviews were held between September 2012 and January 2013.

8 people were interviewed, 6 women and 2 men.

Les participants were volunteers for the study and were aged between 67 and 92 years old (67 – 77 – 80 – 81 – 83 – 85 – 86– 92). The average age was 81.3 years

4. Results

4.1 Profil of participants

Family Circumstances:

62.5% were widows or widowers - 25% were single - 12.5% were divorced and living alone at home.

Comments: For all participants, the domestic unit has dissolved or has never existed. Their fear is loneliness.

Independence - mobility:

Among the 8 interviewees, only one is a person with reduced mobility who therefore finds it difficult to get around. This person goes out very little but does continue to go out.

87.5% of the participants are mobile. Those who live in the city move about mainly by bus or on foot, or occasionally by car or taxi if necessary. One person even mentioned carpooling.

Those who live in the countryside travel exclusively by car.

Social and relational life:

One of the participants said that they no longer go out since the death of their son.

One participant said that they must push themselves to go out and, as such, they attend workshops to learn cartonnage and computing.

75% have a very active life: activities with their families, or with friends and neighbours - restaurants - a café discussion group - balance training - activities within their parish – volunteer activities - camping – tea dances – chats with their neighbour - sport – travel – public readings – writing workshops.

Among the participants, one of them participates in 6 different groups/workshops.

Sport:

62.5% practise at least one sport: gymnastics - walking - fitness - hiking – balance training - muscle training.

And one person participates in 3 different sports.

37.5% of the participants do not practice any sporting activity. These are all the oldest of the participants (85, 86 and 92 years). Two of them have disabling health problems and the third expresses the wish to register for a balance training workshop soon.

Health:

50% say they have no health problems.

50% of the participants closely monitor their health. They list problems such as: a TIA, high cholesterol, high blood pressure, tremors, anxiety attacks, etc.

Table showing results from the GOLDBERG Anxiety Scale and the GDS Depression Scale:

	Family Name, First Name	Goldberg Anxiety Scale	Depression Scale /GDS
1	Je Ca	1/9 – Very mildly anxious	2/30 Within normal range
2	RO C	0/9 – No anxiety	2/30 Within normal range
3	Ag CR	4/9 – Moderate anxiety level present	1/30 Within normal range
4	Ch FR	0/9 – No anxiety	0/30 Within normal range
5	Ja JA	0/9 – No anxiety	0/30 Within normal range
6	Ch PS	1/9 – Very mildly anxious	0/30 Within normal range
7	Ch RO	Not tested	Not tested
8	Gi SE	0/9 – No anxiety	0/30 Within normal range

Among the participants, it should be noted that one person did not complete the questionnaire. Unfortunately, between the time when they began the program and the moment when participants were responding to the questionnaire, this individual encountered serious problems in their personal life.

12.5% of people report the presence of an anxiety-provoking circumstance.

75% of participants seem to have a good psychological state.

One can assume that non-depressive and/or non-anxious people have more interest in pleasure, more satisfaction, a greater curiosity to discover and use ICTs, a desire to enter into contact with others, to learn, etc.

4.2 Acceptance of new technologies by Seniors/participants

To the question: “when we say 'New technologies', what do you think of? Which words spring to mind?”, we obtained the following responses:

In terms of tools:

Computer - Internet - Mobile phone - Laptop - Television - Iphone - Ipad - videogames on the TV - Smart phone - Digital tablets - Interactive television - Social networks - Facebook - Twitter.

100% have a television. Among them, 25% use the television for company and to provide background noise, the TV is on all day.

85.7% have a mobile phone

62.5% have a computer connected to the Internet.

50% are in possession of USB keys to save data.

None have ever communicated on Skype

The reactions, feelings:

Often there is a tendency to think that seniors have lost their ability to learn and to adapt to change. The answers gathered prove that this is not the case, that they are determined and motivated to learn, to get involved and be open to new things:

- *"It's exciting to learn something that I do not know."*
- *"I have never had the Internet before. Malek installed the Internet for me and I am impatient for the project to begin."*
- *"To automatic, digital things, the future, modern."*
- *"I am fascinated by computer science."*
- *"I entered the programme because I made a bet with my grandchildren."*
- *"I use the Internet. My grandchildren have just given me a laptop. I am still improving my skills. It allows me to engage in relationships, communicate with my acquaintances, friends and family. I have a laptop from 97."*
- *"Communicate - initiate new relationships - learn - adapt to the use of new technologies - develop adaptation skills. "*

- *"I am curious and I like to learn.*
- *"All these technical innovations can make life easier for us."*

In your opinion - can we communicate using ICTs? In which areas (family life - hobbies - information, other)?

Communication and new technologies are synonymous terms for those interviewed. 100% of the seniors believe that it is possible to communicate with the outside world through ICTs.

Some seniors even recognize the importance for everyone to play their part, to learn, to take courses.

It is worth noting that some surprise themselves by the passion that emerges from the use of these new tools. Against all odds, seniors are exploiting the opportunities given by new technologies more and more. They already communicate in all areas of life: family, friends, leisure, information research, online shopping, data browsing, etc.

Here are the most significant answers :

- *"I've sent photos that I file carefully."*
- *"Google answers many of my questions, too. I often play games on Google, I have played more than 3,000 games, winning 98% of them on Freecell! "*
- *"Computing is great. I have the impression of not being alone. Indeed, even though there is no physical contact, you are communicating and it goes fast. It's magical."*
- *"Literature searches – I can discuss and browse - order their products and buy."*
- *"We can communicate through social networks and in all areas of life."*
- *"I take computer courses with a group. We are all passionate about it - there is a sense of competition and our teacher is passionate too. We have all made progress."*
- *"I can communicate in all areas."*
- *"Yes, ICTs are primarily useful to exchange, communicate, share, develop and maintain networks."*

- *"They can help break the isolation, provided, of course, you know how to use them - this is certainly the problem. "*
- *"We mustn't let ICTs consume us, because there are other things to do in life."*
- *"If an elderly person has mobility issues, they can do the shopping online, but they should not give up walking, they should keep moving."*
- *"We need to bring the outdoors indoors."*
- *"If we don't make the effort to take it up, we'll be left behind."*
- *"Everyone who can, should take it up."*

It has become all too clear, that the seniors are surfing on the net and are interested in ICTs. Today we can see a real trend among the over-65s

4.3 General - Attitudes regarding Information and Communication Technologies (ICTs)

What do you think, globally speaking, of the development of ICTs for older adults? How could they be useful/essential/dangerous?

100% of those asked, agreed unanimously that ICTs are useful to help break isolation and promote dialogue:

- *"It's useful".*
- *"I communicate via the Internet with my grandchildren - they send news of family, and photos that I file and occasionally modify."*
- *"I am looking for someone to chat with on-line because I lost my friend who passed away."*
- *"New technologies help to break the isolation. Mainly, I communicate with my family."*
- *"You can communicate with your family, your friends, and have a lot more relationships with this technology, I found it great."*
- *"I realized that this mode of communication enabled me to exchange a lot more with people with whom I was not communicating much."*
- *"There is not the impression of being alone when one communicates."*

- *"Yes, for sure – when you are feeling blue – you can call someone."*

According to some, ICTs allow them to "keep up with the time":

- *"It's very good; it allows me to make new acquaintances – to be at the same level as the young people. I don't feel left on the sidelines."*
- *"It's addictive and there's no escaping it. I used to think that my grandchildren were always on the computer, and now I am like them. I find I have to impose some rules on myself."*

In your opinion, can ICTs help to break isolation / increase communication?

The participants believe that ICTs contribute to bridging the digital divide between generations, and combat isolation. Some of them naturally see a use for these new technologies for people with reduced mobility or those obliged to stay at home:

- *"If we can no longer leave home, we can at least communicate via the Internet - I've never had so much news from my daughter since I started to use the Internet."*
- *"It allows me to travel without getting out of my chair."*
- *"Cameras integrated into the laptop could 'monitor' a person with a disability, for example."*
- *"The purpose of gerontechnology is to allow an elderly person to remain autonomous and this for as long as possible"*
- *"Yes, it can help with autonomy and at the same time, it reassures".*

In your opinion, can ICTs help keep memory skills active ?

Seniors sincerely believe that ICTs permit or even oblige them to keep their memory, systems, and cognitive abilities in general, working well:

- *"If only to remember phone numbers."*
- *"Yes if only to learn how to use it."*
- *"Yes - as long as we keep contact with people, it prevents us from aging and allows us to preserve our memory."*
- *"I'm learning – I'm living new experiences. I escape to other places."*
- *"People send me their thoughts, and then I reflect upon them."*

In your opinion, do ICTs allow one to learn and to become better informed?

Seniors like to learn, develop and inquire. ICTs represent for them, a vital means to achieve this. Their responses show clearly the interest that the participants showed in ICTs. For this group: to communicate with their family, to not be "disconnected" from developments in society, to be able to inquire about their areas of interest, etc. is to fully participate in, and stay connected to, the world that surrounds them:

- *"Oh Yes."*
- *"With the Internet I can stay up to date on everything."*
- *"Find a route - read a biography – find rentals when I want to go on holiday - if I want to make a purchase, I can compare prices and search for the most interesting models."*
- *"To learn, yes."*
- *"Goodness me, yes."*
- *"Yes "*
- *"My areas of interest: customs and images of what is done elsewhere."*
- *"I've already picked up some practical tips."*
- *"You can be informed on **everything**."*
- *"Yes, without a doubt, it's great."*

In your opinion, do ICTs enable seniors to use useful/essential on-line services such as: taxes, transportation, travel bookings, purchasing, banking, etc.?

66.67% of the participants have already used on-line services for: taxes, transportation, travel, trade, banking, management of their personal affairs, with confidence. Their testimonies are proof of this:

- *"Taxes – Social security - phone – banks"*
- *"Everything is computerised."*
- *"I deal with everything on the Internet."*
- *"I do my accounts - deal with my insurance - I no longer receive anything to do with taxes on paper - everything is on the Internet."*
- *"For taxes, we work as a team, I work out my taxes, and my grand-daughter sends them on-line."*

- *“You have to know how to use it so you don’t make mistakes that could be serious, such as an incorrect money transfer.”*
- *“I have already bought train tickets on the Internet. I would love to buy trips and other things, check my accounts...”*
- *“I have already booked a hotel on the Internet. I was reluctant, but I had bereavement in the family and since I had no choice, I did it”.*
- *“Same for the bank. I had to have my house replastered and I had a large sum to withdraw. I made the transfer over the Internet. It went well.”*
- *“I manage my bank accounts, pay the electricity and gas”.*
- *“I check my accounts and I ask questions if necessary.”*

Only one person does not have Internet at home yet, but intends to use all the possibilities offered to them:

- *“I can’t at present because I do not yet have Internet, but as soon as I can use it, I’ll do my taxes - banking – on-line shopping (where one orders by Internet) – find good deals on travel – keep in touch with the family, children and grandchildren.*

25% of the participants do not have a computer and are not planning to purchase one. They are obviously unfamiliar with this tool.

- *“No, I prefer direct contact.”*
- *“One participant confessed: “I don't want to buy one - I'm not ready.”*
- *“I would never buy on the Internet I would never give my credit card number.”*

What are the disadvantages of ICTs?

When discussing the disadvantages of ICTs, each participant felt that it is essential to remain vigilant. Here are their comments:

Within the socio-cultural field when the psychologist evokes, for example, the lowering of morals and exposure to obscene material:

- *“You must be careful and not drift away from your path.”*
- *“Any system can be abused.”*

- *“These problems should not exist and the legislature should make every effort to remove this depraved and twisted side of things, such as obscene pictures, paedophilia...”*
- *“Yes, it's dangerous, but it's up to each person to control, filter, check, and be careful.”*
- *“The Internet requires controls.”*
- *“I'm a little afraid of harming someone inadvertently through the Internet.”*
- *“Everyone needs to know how to stop.”*
- *“Everyone needs to take precautions.”*
- *“Yes, but we should limit things, be cautious and vigilant. When I get an email, and I do not know what it is, I don't open it.”*
- *“I don't sign up anywhere on the Internet.”*
- *“I don't enter my address just anywhere.”*

At the mention of health aspects (ie. the physical impacts (back, eyes, etc.):

- *“I limit myself to protect my eyes, I don't exceed two hours.”*
- *“You should not become hypnotized.”*
- *“I don't suffer from back pain.”*
- *“It's not just the Internet - when you watch television too long it can damage eyes. For me, this isn't a problem.”*
- *“My body aches, and the artificial light is tiring.”*
- *“We should be able to be reasonable. But once we're on the slippery slope, can we be sure of not becoming captivated?”*
- *“Will we be reasonable?”*
- *“Yes, it is true that when I have sore eyes, and I tell myself that it's time to stop, I'm not always reasonable.”*
- *“Indeed, you need to take precautions, like for example do not sit for too long, get up every hour and move a little.”*
- *“It can be tiring for the eyes and the back.”*

At the mentioning of the economic aspects, and in particular to the high production of toxic waste:

75% of respondents do not see that waste production as a problem:

- *“No, we mustn’t exaggerate – we need to think of the recycling of waste.”*
- *“No, there’s no harm to our ecosystem.”*
- *“The devices need to evolve. It is possible if we apply the necessary resources.”*
- *“Yes, surely, with progress we will find solutions.”*
- *“Personally I always follow the instructions given.”*
- *“I respect them scrupulously, I think that’s important.”*

The other 25% are sceptical and question this:

- *“I say yes, it’s a problem - what about older computers - mobile phones.”*
- *“We need to consider recycling and take control.”*
- *“Everything evolves so quickly. We update too often. What happens to the waste, where does it go?”*

4.4 FoSIBLE

Can you tell me what you have been told about your participation in this experiment? What were you told? What details do you remember?

The participants have understood that they will be able to communicate, share, develop and expand their networks locally, but also all over France and abroad. They’ll be able to play tarot, Scrabble and crosswords. They declare:

- *“Malek told me that with the Tablet I can communicate with other people who are involved in the project. We could play games together, exchange tips, and swap recipes.”*
- *“This is a project that will allow me to communicate with other people of my own age both in France as well as in Germany, in England, etc. - in short, all over Europe.”*
- *“I love games, and I love playing: tarot, scrabble, and crosswords. I do not play games for money. I hope that this study will allow me to play with people I don't know.”*
- *“I love making new contacts.”*

- *“Also to exchange recipes and why not meet up from time to time.”*
- *“I think that it is to make the computer available to all.”*
- *“It was explained to me as the possibility to participate in a program allowing me to communicate and share, play cards, for example, with people near or far, by using a Smart-TV.”*
- *“I inferred that it was like a presence. Something interactive.”*
- *“It will help break the isolation of those who can no longer get about or who do not wish to.”*
- *“It will allow me to communicate with family, friends. Allow me to play games, share common memories. Have a good time.”*
- *“They told us that we could get in touch with people who have the same Smart-TV, to discuss, play cards.”*
- *“I am a little worried because I don’t like others to see inside my home. I do not want to live in the public eye. I want to keep my privacy. Skype is for the family.”*

Who have you met so far in this study? How often? For which reasons?

Malek Alaoui Ph.D. student at the University of Technology of Troyes is recognized, as the “key” contact of this project even if participants also named Myriam Lewkowicz Professor at the University of Technology of Troyes and Martine Solmon, PA of the Director at the Centre of Prevention AGIRCC - ARCCO, Les Arcades.

Malek appears to represent for them the “essential” person. He was able to create a climate of trust and confidence. According to them, Malek is “nice”, “considerate”, “available”, “intelligent”, “reassuring”, “a good teacher”, “patient”, “kind”, “attentive”, etc.

For example, one participant said: *“Only Malek can help us - he is kind, pleasant and attentive. If we have not understood something, he is always ready to go over it again.”*

Someone else added: *“To be accompanied at all times by Mr. Malek, reassures me. He told me that he is always available and he is so nice, so calm. I understand what he wants to tell me. He said that if I ever needed to, I shouldn't hesitate to call him.”*

Why did you agree to participate?

An interest in new things, curiosity, the awareness that ICTs are useful to break solitude and loneliness have all prompted these people to participate in the project.

- *“I’ll try anything. It’s better than dying stupid.”*

- *“I am always interested in new things.”*
- *“I have always been tempted to learn more about computers.”*
- *“I told myself that one day or another I'd maybe need to use this system. I'm worried about no longer being able to walk. I have a 1.6 km walk to the bus and I wonder what I'll do when the day comes that I can't do it any more.”*
- *“At first, it was curiosity, but I also wanted to find out about smart-televisions and other new technologies available to senior citizens.”*

So, how are you getting on with the study?

The participants in the study are patient "because you have to be" but between the lines one can see their impatience to get the project underway. Here are a few of their comments:

- *“I am waiting for the keyboard and pad.”*
- *“Malek told me it would be in September... I don't want to bother him. I am patient.”*
- *“I'd really like to get started, honestly. I've told everyone. Everyone knows. Family, friends, they all know.”*
- *“I have the television. I'm just waiting for the cables that have not been installed yet.”*
- *“I'm still very motivated to participate.”*
- *“I told some friends in Alsace about it when I visited there a year ago. They would love to join the project.”*
- *“I want to see what how it will go. If it can offer something to me...”*

Ideally, what are you expecting from using this television? How do you hope to make use of it?

Participants talk about to their desire to communicate, exchange ideas, practices, reading, recipes, etc. The smart-TV could become the only means of self-expression, and could break the solitude when they can no longer get about:

- *“To communicate outside the experimental group. I think of my goddaughter, my only family. I want to see her and her family, look at them and hear them. I'd love for my loved ones to see me. I have discussions with them, but I'd rather see them.”*

- *“To have contacts with people from all over Europe and to visit Europe. I very much hope to be able to share, to invite people over and to be invited in return. I love to travel. Since retiring, I have been to Viet-Nam, the North Pole, England, Scotland and Rome.”*
- *“To talk with friends.”*
- *“To talk about reading.”*
- *“To read for people who are struggling to read the book that they want to.”*
- *“To share my poems, my stories, and ask others their opinions.”*
- *“I don’t go out anymore. I am locked up from morning to evening.”*

The participants discussed the easy aspect of the use of the smart-TV. Indeed, some are turned off by the computer as it seems so difficult to use.

- *“I’m hoping for something easier to use than the computer.”*
- *“To help others have access to what I have on my computer because not everyone is able to use it. This TV will replace the computer for those who cannot manage one.”*
- *“The interesting thing about this TV is its simplicity to communicate.”*
- *“The older we get, the harder it is, and so this could be easier than the computer.”*

Do you think you will find it easy to use this equipment? If not, why not?

100% of participants are convinced they will be able to learn how to use the equipment even if some have some fears. The presence of Malek and their families is reassuring:

- *“At the beginning, I was a bit nervous.” I told Malek that I’ll often ask for his help.”*
- *“I was afraid of breaking everything at the beginning.”*
- *“No concerns.”*
- *“Yes, I think so. I feel well supported by Malek.”*
- *“I was afraid that it would start alright and then I’d forget it all.”*
- *“Yes, definitely.”*

- *“Yes, as soon as they explain to me how to use it. New things don’t frighten me.”*
- *“Yes, with training and explanations. I’ll be careful to take notes – I may need to persevere.”*
- *“I think that once Malek explains to me how to work the equipment I’ll know how to use the TV. My daughters can help me too.”*
- *“Yes, it won’t be a problem - I have always tried to keep up to date.”*

Do have any concerns regarding the use of this equipment? If so, what are they? What worries you?

80% of the interviewees do not seem to have any particular concerns:

- *“I have no concerns.”*
- *“I have no concerns for the moment.”*
- *“Yes, definitely.”*
- *“The Internet is the future, provided we use it well.”*
- *“I trust those who are installing it.”*

One of them expressed a desire to be careful and not to be overwhelmed by the technology:

- *“I do not wish to be invaded; you need to know how to refuse requests without offending.”*

Another had heard about viruses and expressed his misgivings:

- *“My concerns are viruses. They scare me. I have heard about them and I do not know what they are.”*

Another is particularly eager to preserve their privacy:

- *“Yes, I want to keep control of my privacy.”*

Do you think that being able to communicate, easily and without leaving the house, with the outside (family/friends) through this television will be a benefit in your life (security/ combating loneliness/ pleasure of communicating with children and grandchildren.)?

80% of the participants are delighted to be able to communicate and believe that the smart-TV represents a real benefit in their lives:

- *“Security: 99%. Combating loneliness: 70%. The pleasure of communicating with children, grandchildren: 100%.”*
- *“The project will help me to communicate more with my older friends. Young people have no interest in talking to old people.”*
- *“With my grandchildren it is difficult to communicate. They speak very quickly and use words that I don't know.”*
- *“Yes I think communicating with them without needing to leave the house.”*
- *“Yes, the television will be of benefit.”*
- *“I will be able to communicate immediately, and with all my contacts (an event for example). It is important to be able to communicate quickly and with several people.”*
- *“Yes, of course, I'm certain.”*
- *“Yes, absolutely. This TV will be very useful for those who have children very far away. It will help to maintain a link with the family. It will be very useful for people with reduced mobility.”*
- *“Oh, yes, certainly. Being able to communicate with my children without leaving home will be a real benefit.”*

Only 20% of the participants have reservations:

- *“Yes, but no more than with the computer.”*
- *“I think so. But it will not replace direct contact that is so much warmer.”*

What do your family / friends / loved ones think of this television? Have you spoken to them about it? What did they say? What have they advised you?

90% of the families were informed by the participants:

- *“I’ve mentioned it to my goddaughter, but I’m waiting for it to be fully installed to explain it. The last time she came, I showed her the television but we didn’t have enough time to talk about the project properly. We didn’t even switch on the television.”*
- *“I told my family (children and grandchildren) that I’m participating in the project. I couldn’t tell them all the details because I haven’t understood everything yet. They noticed that my television screen had changed.”*
- *“My son is very happy about it, my granddaughters also. I keep my family and my friends up to date. The first time I send emails, it’s going to be a real event.”*
- *“I already communicate a lot with my family. They are all aware of the project. I made a bet with them. Often they tell me “you won’t be able to do it / use it”. I reply: “I’ll manage”. It is also about my grandchildren. I want to impress them, to make them proud perhaps.”*
- *“My friends and family support this project and are keen that the project goes ahead. They follow the evolution of the project with great interest.”*
- *“The children think that it will be good. We need to get on with it and not be put off.”*
- *“We’ve discussed it as a family.”*

Do you think that your family/friends will use this equipment to communicate with you? Occasionally, often, daily?

90% of the responses are positive. Families seem to be quite involved in the project:

- *“My goddaughter and her daughter would be delighted to participate in the project, i.e. daily communication with me.”*
- *“Yes, I am sure. My loved ones want me to communicate with them.”*
- *“Oh yes, without a doubt.”*
- *“Yes, of course.”*
- *“Daily.”*

- *“The TV could be used more often than the phone.”*
- *“Why not. The main mode of communication with the family is still the phone.”*

In your opinion, are there any limitations to this tool? What are they?

20% of participants consider that the new ICTs are an El Dorado and that their developments advance naturally, almost all by themselves. The participants already seem to be quite accustomed to the idea. They are generally speaking, reasonably confident:

- *“If one is dealing with reasonable people, there should be no problems. I have a friend who met a woman through the Internet following the death of his wife.”*
- *“No, for the moment I cannot see any limits. It won't stop me sleeping. I like to play games, and I like to have partners for this. I do not like to play solo. What I miss is sharing my thoughts with someone, that's what I miss most. After a TV show to be able to have someone to talk even though this person does not live with me.”*

80% of the participants are more reserved, more cautious:

- *“Be careful not to abuse it. Do not become wearied by your correspondents. Keep some free time for other activities. Variety is important, even essential for me.”*
- *“Privacy protection. There are risks that private information could become public knowledge.”*
- *“Use should be limited.”*
- *“Limit how much time you use it in the day. Don't do only that, be open to other activities. The Smart-TV must be a complement to your life, not an end in itself. Make sure you protect and conserve your social life as much as possible. In other words continue to do sport, get fresh air, take a walk, see your friends in a café, eat a pancake, go to the movies, etc.”*
- *“Obviously, such as the possibility of someone using my TV without my permission.”*
- *“Protection of your private life. There is a risk of private information being broadcast.”*

In your opinion, are there any dangers in using this tool? What are they?

40% of participants see no dangers involved:

- *“No I don’t think so.”*
- *“I’m impatient to have my Smart-TV.”*
- *“For me, there’s no danger.”*
- *“No.”*

20% of participants have reservations and are on guard:

- *“I’m suspicious and I pay attention to fraud. That’s why I never make purchases on the Internet. I was forced to use my credit card, but I am wary and I am reluctant. It is the same when my grandchildren wanted me to open a Facebook account. I am suspicious I will not broadcast my life.”*

20% of participants are afraid of feeling fatigue and nervousness:

- *“Fatigue and getting cross if I get it wrong.”*

20% did not answer this question.

When your Smart-TV is installed, and you have been shown how to use it, what is the first thing you plan to do?

75% want to communicate with their families and friends:

- *“I would like to see and speak with my goddaughter.”*
- *“To communicate immediately with my friends and my family. Show that I know how to use the Internet - that I’m at the same level as my grandchildren in matters of communication.”*
- *“To make contact with my children and my family. Let them share my experience and see what they think.”*
- *“To communicate with my children and grandchildren.”*
- *“Just to communicate with my nearest and dearest.”*
- *“I wish to communicate with other people that will be connected to me by television. I make friends easily. This is an advantage.”*

20% are interested in the techniques involved:

- *“To understand how it works and to be able to work it on my own.”*

In your opinion, what are the implications of new technologies on social relationships?

"Social relationships ", is a magic phrase, an "Open sesame", a window to the world. A means of breaking the solitude for 62.5% of participants:

- *“If one is alone one can still have a discussion using the Smart-TV. It is going to open me up to many things - I hope. Since I have had the Internet, I can say a quick hello to my goddaughter. We have the impression of being much closer.”*
- *“I will make more social connections when I want to. It is a permanent link with the outside world.”*
- *“It’s a bit virtual; one seems closer, but without the real closeness of a physical encounter.”*
- *“It will improve the social connections. Allow people to break their isolation.”*
- *“It creates a social link. It allows us to bring the outside inside.”*

37.5% are sceptical and suggest the risk of a certain isolation from the outside world, or even rupture of social bonds. Indeed, the Smart-TV can become an entity that is an end in itself, and a user risks being satisfied with this contact, not bothering to physically go out to meet other people. Social links can then easily become restricted to the virtual world. The Smart-TV can be considered as an important tool of social mediation, but it is nevertheless limited by the rigidity of its technology.

- *“There is a risk of moving less and less and losing physical competences.”*
- *“It is a virtual contact with loss of physical contact.”*
- *“It’s not the same, it’s different.”*

4.5 The new technologies that will transform the lives of the elderly

Do you think that technological aids such as this Smart-TV, which try to improve independence and allow a person to react to life's difficulties without relying on external intervention, can improve the quality of life for seniors?

100% of the participants think that the Smart-TV is able to improve the quality of life of seniors:

- *"All hopes are valid."*
- *"Yes, we're going to have more autonomy."*
- *"Yes, it's absolutely certain."*
- *"One feels less isolated. It's reassuring."*
- *"Yes, it's obvious."*
- *"Yes, but the person must have a minimum of independence so that they can meet the basic needs of daily life."*
- *"Yes, certainly."*
- *"It's certain that it will be useful and improve the autonomy of the elderly."*

What thoughts do you have?

87.5% participants evoke the importance of contact and sharing, for the breakdown of the isolation and the development of networks:

- *"Lives are richer thanks to contacts."*
- *"I think that it would be good if the people who communicate on this TV could meet at Les Arcades, to get acquainted and share their experiences. Finding people who like the same activities and who are willing to work with me. Finding networks, links, friends, people who share my passions, etc."*
- *"There are moments when we all feel a bit down. Here, there is always someone to talk to."*
- *"I'd be at home without being able to get out and about, I'd be alone all day. Now I have the impression of not being alone anymore."*
- *"It's a good thing. This Smart-TV can allow you to contact other networks and solve everyday problems such as for example: to contact the social services"*

at the town hall, meet groups of people, organise meetings at home, alerting the fire brigade or ambulance, discussing with the doctor, etc.”

- *“It allows me to connect more easily with others. Create new links with people I don't know.”*
- *“The person, who can no longer get out and about, remains in contact with the outside world. There is also the video aspect that you don't get on the phone.”*

Do you think that this Smart-TV will be able to significantly improve the quality of life of the elderly, including allowing them to stay at home as long as possible under acceptable conditions of security and dignity?

The answers were decisive:

- *“Oh, Yes.”*
- *“To find old friends, buddies, people that I knew during the war. I think of my boss. He was in the resistance and I didn't even know. To talk about the past, the good times. It would be interesting to share life story pages. These moments must not be forgotten.”*
- *“To stay at home. Even if you can no longer be as mobile, you can still have a window to the outside world, this is important. A person may not be able to visit you physically but they can visit you via the computer, a virtual visit.”*
- *“Perhaps it's symbolic, but I feel I can look to the future with a greater serenity. By being able to share with people that I have not seen very much so far, I feel that I know them much better.”*
- *“The quality of the social benefits is evident.”*
- *“Yes, perfectly.”*
- *“Yes as long as the person is able to perform the basic needs of life, particularly moving about, without taking risk.”*
- *“Yes but need for relative autonomy.”*
- *“You need to have kept your mental capacities, so that you are able to use the material.”*

5. Conclusion

In General, the senior population – or the elderly - is not a homogeneous population; on the contrary, it includes individuals facing a very diverse range of situations and needs according to their level of activity, their state of health, their age, where they live, their family situation, etc.

Most seniors want to remain in their home as long as possible and the prospect of losing their autonomy causes anxiety. Many already use Internet services, and others say they are ready to use these services, in order to simplify the paperwork and procedures related to retirement, health...

Our investigation shows that more and more of them are likely to use the Internet and benefit from the organization of their personal, family or social life. We are faced with the emergence of a new "on-line" generation among seniors.

As we can see from this document, the rate of those with Internet access at home and those who are using it is increasing. Even those unfamiliar with the digital world find pleasure in browsing the Internet with appropriate assistance (possibly computer courses, grandchildren, friends, etc).

Those interviewed mainly focussed on health and well-being: communication and discussions, social links, access to appropriate services, entertainment and learning, etc.

This audience is particularly attracted by technologies related to well-being. The desire to learn is also very present in the interviews.

Interest in ICTs, coupled with a desire to learn, represent powerful motivating factors in preparing seniors to familiarize themselves with the necessary equipment, methods and tools, and to manipulate them with ease.

In fact, ICTs for seniors have a much broader scope than that cited by the participants which relates to uses in all aspects of their lives: health, security, mobility, communication, housing, daily life, hobbies and more generally, the quality of life of older persons and their caregivers, whether professional or family.

Therefore in the event of a loss of autonomy, or even a situation of dependence, they will already be accustomed and prepared, and as such, they will be able to adapt more easily to options such as home automation, electronics, computing, telecommunications, etc.

Appendix

Current Situation

Family name, first name :

Age :

Marital status :

Independance - mobility (are you able to get out and about) :

Social life (friends/relations/family/ participation in activities outside the home) :

Sport ?

Do you have any health concerns ? Are you worried about your health ?

Goldberg Anxiety Scale ?

Depression Scale/GDS?

Hypothesis: depressed, non-anxious people may have + interest in pleasure, curiosity to use NICTs, make connections with others, learn,...

Uptake of new technologies senior participants

What do New Technologies mean to you ?

Engage in relationships – Take stock of what seniors know, understand, use, find their motivations/reservations....

When you hear « New technologies », what do you think of ? What words spring to mind ?

Association of ideas –mental fluidity

In your opinion, can we communicate using ICTs? In what areas (Family life – hobbies-information, other)?

Comments

Generalities - Attitudes towards ITCs

What do you think, globally speaking, of the development of ITCs for older adults? How could they be useful / essential / dangerous ? What is the point of them ?

Information / comments

In your opinion, can ITCs :

Avantages in various areas:

- Help to break isolation/ increase communication?
- Help with independence and remaining in one's own home ?
- Help keep memory skills active ?
- Allow learning ?
- Using useful/ essential on-line services such as : taxes, transportation, travel bookings, purchasing, banking, etc. ?

Negatives:

- Social: lowering of morals – exposure to obscene material :
- Health: physical impact (back, eyes, ...)
- Economic: production of toxic wastes

Do you own ?	Do you use it ? If no, why not ?	Use	How long each day	Comments	Can you do without it ?
Television	Would you like to learn to use it?	* Background noise/ company * Films * Documentaries * Information	week/month		
Cellphone		* Telephone : to be able to phone if necessary * Camera * To look up addresses/ timetables/ notes... * SMS /Texting			
Skype		* To speak to			

	someone “face to face”
Computer (PC)	* Brain training * To send and receive photos
Internet	* To purchase, * to be informed, * to store documents, etc. * Exchanging photos with family * sending/receiving emails
Ipad	* Ipad
USB key	* Saving data/information * Transfer information

FoSSIBLE

Can you tell me what you have been told about your participation in this experiment?
What details do you remember?

To check what the seniors have learned about the study- knowledge – understanding of the situation.

Who have you met so far in this study, how often, for what reasons ?

Could this type of experience be a pretext to break isolation for some seniors (I think of Malek and his kindness/availability - it could be an important motivating factor to help seniors to familiarize themselves with the tool).

Why did you agree to participate?

Motivation

So, how are you getting on with the study?

Take stock / know if seniors want to go further - curiosity - motivation for going to the next level / degree of investment in the study

Ideally, what are you expecting from using this television? How do you hope to make use of it ?

Comments – expectations – needs.

Do you think you will find it easy to use this equipment ? If not, why not ?

List all reservations – fears – doubts – preconceived ideas

Are you worried about using this equipment? If so, what is worrying you?

List all reservations – fears – doubts – preconceived ideas

Redundancy

Formulation - / verification

Do you think that being able to communicate, easily and without leaving the house, with the outside (family/friends) through this television will be a benefit in your life (security/ combating loneliness/ pleasure of communicating with children and grandchildren.)?

Measure the interest / reduction of isolation

What do your family / friends / loved ones think of this television? Have you spoken to them about it? What did they say? What have they advised you?

Have relatives have anticipated the concrete use of the television - can the family play a role in the acceptance of the system by the senior - their desire to participate if necessary - motivation to learn

**Do you think that your family/friends will use this equipment to communicate with you?
Occasionally, often, daily?**

*Is the motivation of relatives an encouragement to undecided or nervous participants?
Measure the importance of the relatives to this project*

In your opinion, are there any limitations to this tool? What are they?

Ethical questions / culture

In your opinion, are there any dangers in using this tool? What are they?

Ethical questions / culture

When your Smart-TV is installed, and you have been shown how to use it, what is the first thing you plan to do?

Investigate the concept of curiosity / pleasure / desire / the spontaneous aspect

In your opinion, what are the implications of new technologies on social realtions?

Work on comments of the seniors

New Technolgies, changing the lives of seniors

Do you think that technological aids such as this Smart-TV, which try to improve independance and allow a person to react to life's difficulties without relying on external intervention, can improve the quality of life for seniors?

Acceptance of the device

What thoughts do you have?

General personal comments

Do you think that this Smart-TV will be able to significantly improve the quality of life of the elderly, including allowing them to stay at home as long as possible under acceptable conditions of security and dignity?

Personal comments/independence/ feelings of the senior being in control of their daily lives/team-involvement (by family, friends and staff of the institution) with this technology.