

Virtual Assistant for Healthy Aging: Benefits Perceived by Elders

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Why

Helping elderly people maintain their **mental and physical health** while aging, and developing ICTs based **innovative products** for aging well and perform activities of daily living.

What

1. We present **Ella4Life**, an ICTs based solution that supports elderly people in improving their healthy aging and emphasizing the **virtual assistant role for communication, interaction, and managing healthcare**
2. ...enhancing **elderly user experience** for better adapting the product
3. ...raising the positive feelings and technology acceptance with respect to **international** context.

How - Elderly user research

The methodological approach aims to explore the **elderly user requirements** in terms of attitudes, perceptions and their own representation of virtual assistance in activities of daily living.

- We addressed to people aged 55+, living in different countries.
- Main findings are presented here.

Ella4Life – your Virtual Personal Assistant for home and on the road*



- Hello! My name is Ella

What is Ella?

Ella is a virtual assistant (an application) designed to assist elderly, healthy or with a chronic disease or mental condition, to stay healthier and manage activities of daily living, more independent and safe.

What is Ella doing?

- Ella interacts by voice recognition, and stimulates people mentally and physically
- Ella helps with daily activities like: organizing daily schedule, communication and using the telephone, taking prescribed medications, managing healthcare, etc.
- Ella it **generates a human realistic presence, sounds and other feelings that simulate the elderly's brain** through communication and interaction in a domestic environment.

Elderly user research

Research on user requirements aims to bring together insights about what they (**elderly users from different countries**) require this innovative solution to do, and what are the benefits, with a multicultural perspective.



The methodology:

- **Method:** qualitative research for understanding seniors' requirements (attitude, opinion, needs, etc.) in a specified context
- **Tool for data collection:** focus groups and in-depth interviews
- **Participants:** adults aged 55 years and over, living in four European countries (Romania, Poland, Netherlands, Switzerland)*
- **Time:** September – November 2018
- The **question** was “How do you think that interacting with your virtual assistant will be a benefit to you?”

The main results:

1. Insights from **focus groups** revealed that Ella4Life solution including a virtual assistant was welcomed by elderly and seems to be very interesting because it is perceived as a real partner for elderly who need assistance and support.

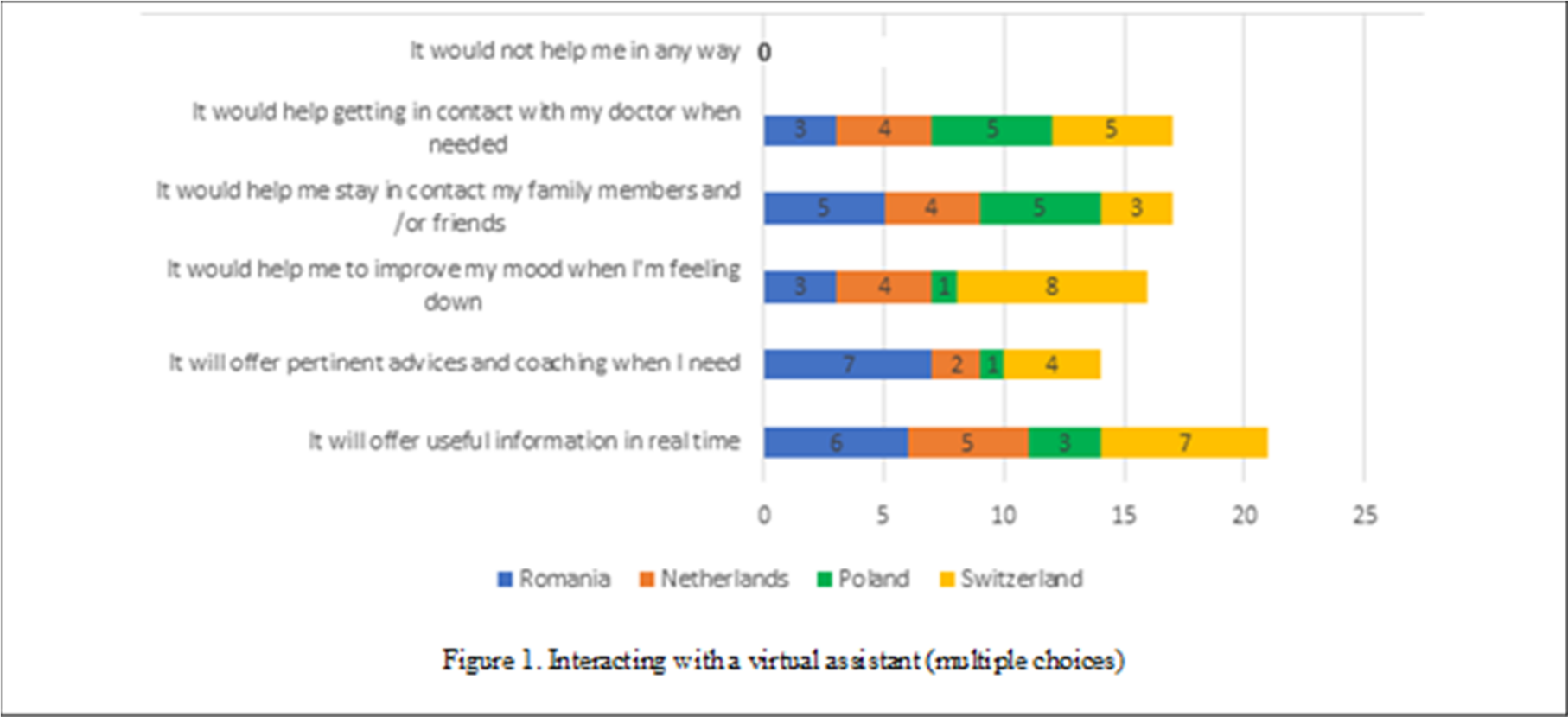
Main benefits perceived	Disadvantages
communication, share information and networking with others, voice recognition, the feeling of being involved	talking to an avatar can lead to loneliness and lack of emotions

2. Findings from **in-depth interviews**

Results on acceptance to use and interaction with virtual assistant reveal the positive attitudes of elderly.

Figure 1 shows how interacting with a virtual assistant would help elderly in specific ways, in their opinion.

“How do you think that interacting with your virtual assistant will be a benefit to you?”



Main conclusions

This article focuses on the involvement of the elderly in the development of Ella4Life in order to facilitate their acceptance and build a positive attitude.

- Elderly had a **positive opinion in terms of attitudes and acceptance** for the virtual assistance technology to care and cure, and healthy aging. Elders are **aware of their needs** and want to **mobilize their cognitive resources for their own benefit**.
- The user research on **multicultural** differences is essential in order to design an innovative product as a key part of the development process.



The results will be used to improve the prototype of the innovative solution and offer a more adaptable product that can be used by people living in different European countries.



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