Towards understanding how older people use iTV

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1. Introduction
Both an increasing ageing population and the rising popularity of interactive TV (iTV) mean that understanding older people’s use of iTV is a timely and important task. iTV opens up opportunities for communication and access to online information/services. Yet, older people are at risk of being unable to use them, due to their general lack of digital skills and a tendency to exclude them from software and hardware developments. In this ongoing research, we aim to design and evaluate more accessible iTV services for, and with, older people. We focus on iTV services related to communication, as it is a key aspect in ageing (Nussbaum et al., 2013), and on searching for information, hoping to enable older people to remain independent and not to lag behind in society.

Understanding everyday interactions is crucial in designing better, and therefore, more accessible interactions. This project addresses this overall problem by breaking it into three specific aspects: (i) accessibility barriers; (ii) everyday use; and (iii) cross-cultural factors.

2. Methodology
The methodology applied in this project follows the user-center design approach. We have conducted ethnographical methods to collect data about users needs, interests and difficulties while interacting with online iTV (and ICTs, in general). Other qualitative methods, such as as user observation, informal conversation, interviews, questionnaires, diaries, focus groups, workshops, participatory design, usability tests and prototyping, have also been used to address from different perspectives the aforementioned aspects. The fieldwork activities were mainly performed in Spain, where a two-year ethnographical study, adopting a traditional approach (Fetterman, 2010), was conducted. To take into account countries with different developing levels, and cultural diversity, a rapid ethnographical study (Mileen, 2000) was conducted in Brazil and Denmark. In both settings, the activities were performed by collaborating with centers that promote ICT courses for older people. So far, the studies included 201 older adults in Spain, 78 in Brazil and 103 in Denmark. The participants can be regarded as a heterogeneous ‘user group’, comprised of older adults aged 60+, with different educational levels and previous experience with ICTs. Figure 1 shows Spanish participants interacting with online videos.

A challenge that arose in the initial phase of this investigation was that most of our participants did not have smart / iTVs at home. We could not observe their use of iTV in an important real-life setting. The solution we came up with was to observe their use of other technologies and from this, understand their interaction with online iTV. Since the computer has similar features to iTV, the computer was chosen to be the main device to be explored. Furthermore, this research includes other devices, i.e. tablet PCs, cellphones and digital cameras. In this scenario, several applications and services were explored, e.g. YouTube, e-mail, Skype, Facebook, Blogs, Picasa, Spotify, Google maps, buying online, MS-Office tools and Windows Movie Maker.

3. Results and future work
The results from this project deal with accessibility barriers and use of online iTV in real-life settings by older people. Thus far, the results suggest services that are crucial for iTV and that could be applied in other technologies too. The results related to the use of online iTV, points to using media to stimulate older adults’ community communication, their sharing practices, their behavior as content creators and their concerns with privacy. Other important findings are related to searching for content, second screen practices, accessibility problems and attitudes concerning several interactive services in iTV. Regarding methodological contributions, several issues were identified in relation to collecting user data in different contexts. These considerations highlight the importance of a deep investigation regarding cross-cultural studies with older people and ICT.

The aim for the next stage of this project is to perform a deeper investigation concerning content creation, content consumption, sharing practices, use of tablet PCs as second screen device and technology acceptance in iTV services. In order to triangulate the data, this following stage will also focus on quantitative studies in relation to user behavior.

References

Figure 1. Participants interacting with online videos

Settings:
• Agora, Escola d’Adults de La Verneda-Sant Martí, Barcelona, Spain, (http://www.edaverneda.org/)
• Casa do Idoso, Sao Jose dos Campos, Brazil, (http://www.sjc.sp.gov.br/secretarias/envelhecimento/social/casa_do_idoso.aspx)
• FoF, Aalborg, Denmark, (http://www.fof.dk/AfdelingForside.aspx?enhed=1)
• Borgor Datacenter (affiliated with Æltemobilsiringen), Jerslev, Denmark, (http://www.jerslev.net/view.asp?soc=158).