Research on health communication between UT Austin and U. Lusófona: Past and future projects
iDTV Health Project
Inclusive services to promote Health and Wellness via Digital Interactive Television
(UTA-Est/MAI/0012/2009)
IDTV Health project

**Main objective:**
To evaluate the potential of digital interactive television (iDTV) to promote original services, formats and contents that can be relevant to support personal health care and wellness of individuals over 55 years of age in the Portuguese territory.

**Central problem:**
television ability to provide tailored services, formats and content in the areas of e-health to specific groups of users, namely people with more than 55 years, and/or low levels of income and literacy
1. Theoretical framing and initial analysis

- a) Literature review and state of the art in the areas of e-inclusion, e-health, health communications and digital interactive television and health
- b) Interviews with stakeholders in the areas of e-health and digital TV in Portugal
- c) Quantitative inquiry to be applied on the target-groups considered for the project
- d) Report of main results, with recommendations for prototypes

2. IDTV Health content development – I

- e) Fiction: short-film
- f) Factual: News Report

3. IDTV Health prototypes development – II

- g) IDTV portal for IPTV
- h) IDTV portal for Mobile TV

4. Users testing and evaluation

- i) Pilot with sample of professional health care providers: medical doctors and physiotherapists
- j) Usability study of IDTV portal for IPTV and IDTV portal for Mobile TV with small sample of target-users
- l) Focus groups and think-aloud with users for evaluation of IDTV portal for IPTV and Mobile TV

5. Final report and dissemination of results

- m) Final report
- n) Conference for the public dissemination of results
Main Studies

1. **Qualitative study** - stakeholders, health professionals, people with diabetes.

2. **Quantitative inquiry**

3. **iDTV content development** “Somos Saúde” – **app for Smart TV, app for Smartphone** (Android) and all contents (video and multimedia contents – Short-fil “Amélia”, News Report, Video with physical exercises, etc)

4. **User testing** – usability tests for Smart TV and Smartphone apps (pilot with professional health care providers, usability tests, focus-group)
Main Results

Qualitative study

- Interviews with stakeholders
- TIC should have three central roles:

1. **Informative Role** - to increase the level of health information comprehension and awareness;

2. **Communicative Role** - to facilitate communication between health professionals; and between health professionals and patients);

3. **Accessibility and Mobility** – to facilitate accessibility and mobility (remote consultation, NHS congestion)
Main Results

Quantitative inquiry

- Sample of 1207 subjects; 18 – 93 years old (mean age=45.63)
- 26 items about e-health, 13 items for demographics and the scale Newest Vital Sign
- Most well-known iDTV services are: TV guide (55,2%), HD channels (58%), TV program pause/stop option (51,6%), programs late viewer/digital recording (49,2%)
- Less well-know services are: audio description of programs for people with hearing problems (21,4%); informative services in health care and wellness (23%).
- Most interesting services: informative services in health care and wellness (47,2%); audio description of programs for people with hearing problems (42,5%); HD Channels (40,3%)
- Most common difficulties: Command buttons (50,6%), fear of broking/ruining the service (13,1%)
- Functionalities you would like to have in a e-health and wellness service: appointments (34,3%), Emergency care (30,7%), pharmacies shedule (25,7%), exchange messages with health professionals (17,1%)
- NVS: 51,7% have a high probability of having low health literacy level; 22,6% have a limited health literacy level; 25,7% have an adequate health literacy.
Main Results

iDTV content development – app for Smart TV, app for Smartphone

- Diabetes (very common amongst the elderly 46.2% of the people aged between 60-79 years)
- **Smart TV app**
- **Mobile app**
- Goal is to provide information about health/ Diabetes mostly to elderly people via pc, mobile phone and TV
- Content produced: TV Fiction ‘Amélia’ (interactive version), News and media reports (journalistic format) about diabetes, Public debate (after the News and Media Report, Tour to APDP (Diabetes Portuguese Association), Tips and advices about diet, exercises, sport and physical training to help to improve and prevent diabetes, technical information e.g. glycemia levels, etc)
Main Results

Usability tests

• The goal was to understand the ability of individuals +55 to interact with specific technological applications in the area of diabetes;

• **18 participants** (5 with diabetes): men=44.4%; women=55.6%, Mean age= 65.22, SD = 8.32;

• Focus on: **satisfaction** with each of the applications; analysis of the **effectiveness** (whether participants concluded the tasks); analysis of the **efficiency** which they performed the tasks proposed (time measure).

• **Smart TV:** All participants were able to finish their assignments, except for one participant (registration of blood glucose levels) and three unable to find the Privacy Policy area of the application. To log the blood glucose levels proved to be the most demanding task.

• **Smartphone:** To find the privacy Policy area was the most difficult of the tasks to accomplish for these users, since three participants had given up, although those who have succeeded have done so quickly (M = 35.1 seconds).

• The higher the educational attainment, the greater the value of the NVS.

• The higher the health literacy, lower the response time in usability tasks.
Examples

http://cdnapi.kaltura.com/p/492091/sp/49209100/playManifest/entryId/1_j02sge4q/flavorId/1_8rj94f8r/protocol/http/format/url/cdnHost/cdnbakmi.kaltura.com/a.mp4
IM-Health
Strategies for the implementation of Media based health interventions
(UTAP-ICDT/ICV-COM/0031/2014)
IM-Health project

Challenges:

• Why is it that, despite the enthusiasm for technological innovation around eHealth, not always has that been matched by uptake and utilization of these technologies in practice?

• How can we improve the implementation processes of eHealth interventions, the theoretical tools that can be used to do this and the associated communication strategies?

• Can we, in the context of an eHealth innovation implementation, verify if these eHealth literacy and user engagement with media are utterly relevant for the intervention implementation and normalization success?
Objectives:

1. To define a framework for eHealth implementations supported on NPT – normalization process theory;

2. To confirm the relevance eHealth literacy and user content engagement have in the successful implementation of eHealth interventions;

3. To implement a mHealth technologies based intervention in two different geographical settings, one in the USA and one in Portugal;

4. To discuss the effectiveness of mHealth applications to improve health literacy and user engagement;

5. Assess the gaps in knowledge and make recommendations for future research in eHealth mobile and wearable based applications implementations.

6. To design a strategic and identify the factors promoting/inhibiting engagement and participation in eHealth interventions of both providers and patients.
Hypothesis:

H1) Engagement with professionals and patients in the context of eHealth greatly impacts the effectiveness and success of the intervention;

H2) Engagement with patients and professionals can be efficiently assured via the use of media technologies when content and functionalities have been tailored to the eLiteracy levels of both groups and proper and adequate engagement mechanisms;

H3) Mobile media, sensing and wearable media, offer relevant tools for the development and implementation of content and applications that can engage professionals and patients and support eHealth implementation and normalization;

H4) Normalization Process Theory (NPT) constitutes a valuable framework in order to specify the mechanisms of importance in an eHealth intervention;

H5) Dimensions of coherence; cognitive participation and collective action as proposed by NPT constitute a valuable base for the design of strategies for media based eHealth implementations;
Future Projects

1 CAPES;
1 Cost
3 Apps in market
2 UtAustin