

SIGACCESS Member Profile

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Member of SIGACCESS since: 1997

Member of ACM since: 1994

Also member of: SIGCHI

1. How many years have you been working in this area?

I started my first project on technology for Augmentative and Alternative Communication in 1985. Therefore, I have been working in this area for 21 years.

2. What motivates or inspires you to work in this area?

I found that computer science was too much a technology-oriented activity. I wanted to find a more human-oriented application of the technology and I discovered that the Assistive Technology (with a different denomination at that time) area was exactly what I was looking for.

3. Please describe your current research project(s):

Currently I am coordinating a project, called HeteroRed 3, funded by the Spanish Science Ministry, developed in collaboration with the Universities of Seville and Saragossa. HeteroRed 3 aims to design ubiquitous technology to support Ambient Intelligence environments for People with Disabilities and Elderly People living alone. Expected results include adaptive interfaces that enable people to easily interact with diverse smart home services, independently of the supporting technologies.

I also coordinate a project, EvalAccess, aiming to design methods and tools to extend automatic web accessibility evaluation and repairing to accessibility monitoring and maintenance. To this end we defined quantitative accessibility metrics (more accurate than traditional qualitative marks). We also designed "personal accessibility" methods and tools in order to help individuals to find web sites that are accessible for them, even if they are not generally accessible.

4. What is your professional background?

I have a BSc. in Physics (University of Navarra, 1978) and a PhD. in Informatics (University of the Basque Country, 1987). I joined the Department of Computer Architecture and Technology of the University of the Basque Country in 1981, where I taught diverse topics including Computer Architecture, Robotics, Advanced HCI,

Operating Systems, Digital Design, etc. I participated in the creation of the Laboratory of HCI for Special Needs, which has been working (with diverse denominations) from 1985.

5. Please describe any past projects on which you have worked:

IRIS project: "Incorporating Requirements of People with Special Needs or Impairments to Internet-based Systems and Services" was a European IST project, developed from 2001 to 2003, in collaboration with European Dynamics (GR), University of the Aegean (GR), Fraunhofer Institute (D) and the Information Society Disabilities Challenge (ISdAC). IRIS aimed to create a Design Support Environment to enable Web designers and developers to consider the needs of people with disabilities and older people when creating Internet products and services. Our laboratory developed a web service for automatic web accessibility evaluation that can be called from any other web application (see <http://sipt07.si.ehu.es/evalaccess/index.html>).

COGNIWEB 1 and 2 is a series of projects intended to study cognitive web accessibility for deaf-born people. We have submitted a new proposal, COGNIWEB 3, that aims to study, test and propose cognitive accessibility guidelines for web designers.

The series of projects TetraNauta (Intelligent interface for a smart wheelchair), DomoSilla (Interoperation of a smart wheelchair with a smart home) and Heterorred 1 and 2 (Development of ubiquitous technology based on heterogeneous network interoperation to support Intelligent Ambient environments for people with disabilities and elderly people) were funded by the Spanish Ministry of Science, and developed in collaboration with the Universities of Seville and Saragossa, the Spanish National Hospital of Quadriplegia and SABIA industry.

6. What technology or product would you really like to see developed? Why?

It is very difficult to answer this question because people with disabilities have many basic needs that, in case of being solved would radically change their lives. In some cases it is a matter of time for technology to be able to offer a solution. In other cases I have doubts about the feasibility of a technical solution. For instance, even if I am not working on that field, I would love to see a fully operative artificial hand with a brain-computer interface, but I am quite doubtful about its feasibility in the medium term.

7. Have you participated in any SIGACCESS-sponsored event?

I have frequently served as a Program Committee member but I have not had the opportunity to attend the ASSETS conference yet.

8. What else would you like to see SIGACCESS do?

- To organize or promote training activities (summer schools, tutorials, web courses, etc.) on Assistive Technologies and/or Universal Design for undergraduate students and graduate Engineers.
- To create and maintain a repository of teaching materials (class notes, presentations, videos, laboratories, etc.) to be shared by people wanting to introduce Universal Design in Engineering design standard courses.

- To collaborate with other institutions working in accessibility, to share efforts and experience. For instance, is it possible to profit from WAI experience to extend it to other fields beyond web accessibility (in order to advance in compiling accessibility guidelines, methods and tools for these fields)?