CALL FOR PAPERS, 46

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CALL FOR PAPERS

The Internet of the future

The challenges of human interaction

Internet del futuro. Los desafíos de la interacción humana

Subject Editors

- **Carina S. González.** University of La Laguna, Spain
- **César A. Collazo.** University of Cauca, Colombia

Focus

This issue is intended to promote and disseminate recent advances in the field of Human-Computer Interaction (HCI in the USA, IPO in Spain). In particular, we will focus on the problems facing the internet of the future or the internet of things, and the challenges present in this field involving interacting and communicating with the user.

Among the academic disciplines interested in the area of human-computer interaction we find not only the technical disciplines, but education, sociology, audiovisual communication, fine arts, cognitive psychology, and many others.

Human-computer interaction is present in any software and technical device, and interface design has become a critical aspect in their development, as it is one of the main factors influencing the success and competitiveness of software applications. We could say that an interactive system is judged not only by its ability to carry out operations, but also by its ability to properly convey them to the user. The interface is part of a cultural, physical and social setting, factors that must thus be taken into consideration when designing it.

The evolution of interfaces and methods of interaction (Preece, 1994) has given rise to different interactive paradigms over the course of the history of computing, the best-known being the tabletop computer, virtual reality, augmented reality and ubiquitous computing. Technological advances brought a new generation of interactive computing environments, such as multimedia and virtual reality. The effect of taking the interaction “beyond the desktop” led to new questions and challenges and required considering new phenomena and questions. History shows us that the predominant interfaces in the 1980s were based on commands and graphics

(WIMP/GUI). In the 90s, interfaces evolved to reveal multimedia, virtual reality and hypertext on the internet. The boom in web environments gave birth to the discipline of information architecture, which relies on the solid classical principles of traditional information science to structure, organize and label the elements that comprise the information environments, thus facilitating the location and recovery of information, which in turn improves the users' ability to use it and benefit from it.

In the year 2000, interfaces became mobile, and with it cooperative, collaborative and social, tangible and tactile, gestural (multimodal), augmented, hybrid and controlled by the brain (brain computing).

Computers nowadays are designed to be "embedded" in an environment. This thus requires rethinking the Human-Computer Interaction in this context. New user interfaces as well as new interaction paradigms have created new ways of communicating and interacting with the user and present new challenges to researchers and designers of interactive systems in terms of improving the user experience and system communicability. As a result, this special issue aims to bring together research work, relevant experiences and rigorous contributions in the area of human-computer interaction.

Descriptors

- Accessibility of Information
- Interactive Learning
- Computer-Supported Collaborative Learning
- Cultural Design Aspects
- Digital Art
- Information Architecture
- Digital Libraries, Repositories and e-Books
- Ubiquitous and Pervasive Computing
- Ergonomics
- User Experience (UX)
- Human Factors and Cognitive Studies
- Gender, Interaction and Communication
- Hypermedia and the Web
- Ambient Intelligence
- Brain-Computer Interaction
- Interaction for People with Disabilities
- Multimedia
- Virtual and Augmented Reality
- Digital Interactive Television
- Usability
- Videogames, Interaction and Communication
- Display of Information
- Semantic Web

Topics

We invite submissions for this Special Issue that address, but are not limited to, the following topics:

- How should digital products, services and contents be designed to make them accessible and useful to everyone?
- How to design "good" experiences in people who are constantly interacting with machines in a hyperconnected and ubiquitous digital world?
- How to design interactive systems and experiences in smart cities?
- What elements, factors and components are essential to the design of interactive interfaces?

- What are the key methods, techniques and tools of the new interaction and interface design paradigms?
- What cognitive, physical, ergonomic and cultural factors influence the design of current interactive systems?
- What advances have been made in creating systems that promote a natural interaction between people and machines?
- What innovative initiatives exist for creating and using interactive systems and devices?
- How can communicability between people and machines be improved?
- How does gender influence in the creation of technology?
- How should the quality of a user's experience with an interactive system be evaluated?
- How should "good" emotional interfaces be designed?
- What are the best ways to organize, represent and display information on an "infoxicated" network so that people can more easily find it and understand it?
- How do new interactive paradigms and systems affect the education, health, art, leisure, work and everyday life of people?

About the subject editors

Dr. Carina S. González, University of La Laguna (Tenerife, Spain)

Tenured Professor in the Computer Engineering Department. Doctorate (Cum Laude) in Computer Science from the University of La Laguna (ULL), Spain in 2001, specializing in Artificial Intelligence (AI) and Human-Computer Interaction (HCI) techniques to develop an Intelligent Tutor System (ITS) to help children with special learning needs. Her main research areas of interest are the application of AI techniques, multimedia adaptive interfaces and social videogames in education. She has ample experience in e-learning systems and has authored important papers in renowned journals, conferences, workshops, as well as chapters in books, most of them related to HCI and education. Carina González is also the director of the Interaction, Technology and Education (ITED) research group at the University of La Laguna and a member of the Human-Computer Interaction Association's Board of Directors.

Dr. César Collazos, University of Cauca (Popayán, Colombia)

Full Professor. Doctorate in Computer Science from the University of Chile with a dissertation on "A Method for Computer-Assisted Evaluation and Monitoring in Collaborative Learning Environments". A professor at the University of Cauca (Colombia), his main areas of research are CSCL (Computer Supported Collaborative Learning), HCI (Human-Computer Interaction), collaborative virtual environments and learning software, in which he has published several papers in indexed journals (ISI). He is the coordinator of the IDIS (Software Engineering Research and Development) research group in the Systems Department at the University of Cauca (Colombia), and has been a member of the University of Chile's CARL (Collaborative Applications Research Laboratory) since March 2001. Visiting Professor at the University of Lleida (Spain). Member of the Human-Computer Interaction Association's Board of Directors. Member of the Board of Directors of the Colombian Computing Society. Member of the National Electronics, Telecommunications and Computing Program (Colciencias), Colombia.

Instructions and submission of proposals

Editorial guidelines:
www.revistacomunicar.com/index.php?contenido=normas&idioma=en

-Proposals for the Special Issue through the OJS RECYT Platform:
http://recyt.fecyt.es/index.php/comunicar/login

Key dates

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