Prof. Joëlle Coutaz

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Biography

Joëlle Coutaz has studied computer science at University Joseph Fourier (Grenoble, France) where she obtained her doctorate in 1970 and Thèse d'Etat in 1988 in which she set the foundations of software engineering for HCI. She is professor at University Joseph Fourier since 1973 and the founder in 1990, and director, of the HCI Group at laboratory CLIPS (Communication Langagière et Interaction Personne - Système). She is the author of the PAC model, a conceptual software architecture model for interactive systems. She is a member of the editorial board of the ACM Transactions On Computer Human Interaction (TOCHI) and has been involved in the ACM CHI conference as paper and panel chair. J. Coutaz was vice chair of the Working Group 2.7 of IFIP. In France, she is the founder of the working groups CSCW and Multimodal man-machine communication of the national programme PRC Man-Machine Communication. J. Coutaz has been involved in the ESPRIT BRA/LTR projects AMODEUS1 and AMODEUS2 (1989-1995), which promoted a multidisciplinary approach to HCI.

Research Interests

Joëlle Coutaz core interests concern multimodal interaction and software architecture modeling for interactive systems. More recently, Joëlle Coutaz has investigated the concept of plasticity of user interfaces, the notion of context of use, as well as the design and implementation of artifacts that blend the physical and the virtual. Her participation in three ongoing European projects illustrates these interests.

GLOSS (Framework V, FET, Disappearing Computer, started in Jan. 2000, *www.gloss.cs.strath.ac.uk*)

This project will enhance natural interaction with physical architectural environments by providing location-sensitive user interactions through a cohesive movement/activity map supported by networks of information. GLOSS will develop a framework for technology to adapt to the user by understanding where information is presented and how it should be presented, where devices are controlled and how they should be personalised, and when this should all occur, in a integrated information landscape that varies from outdoor to indoor activities, public to private spheres, home and work environments.

FAME (Framework, V R&D, starting date September 2001)

The goal of this project is to construct an intelligent agent to facilitate communication among people from different cultures who collaborate on solving a common problem. This agent will provide three services: 1) facilitate human to human communication through multimodal interaction including vision, speech and object manipulation, 2) provide the appropriate information relevant to the context, and 3) make possible the production and manipulation of information blending both electronic and physical representations.

CAMELEON (Framework V, R&D, starting date October 2001)

The goal of this project is to build methods and environments supporting the design and development of plastic user interfaces, i.e., user interfaces capable of adapting to different contexts of use (such as different locations and different devices) while preserving usability.

Recent Publications

J. Coutaz. *Architectural Design for User Interfaces*, The Encyclopedia of Software Engineering, 2nd edition, J. Marciniak Ed., Wiley & Sons Publ., to appear

J. Crowley, J. Coutaz, F. Bérard. *Things that See*, Communication of the ACM, Vol 43 (3), March 2000, pp. 54-64

D. Thevenin, J. Coutaz. *Plasticity of User Interfaces: Framework and Research Agenda*. In Proc. Interact 99, Edinburgh, A. Sasse & C. Johnson Eds, IFIP IOS Press Publ., 1999, pp.110-117.

G. Calvary, J. Coutaz, D. Thevenin, *A Unifying Reference Framework for the Development of Plastic User Interfaces*, in Proc. Engineering HCI, Kaufman, 2001, to appear.

G. Calvary, J. Coutaz, D. Thevenin. *Supporting Context Changes for Plastic User Interfaces: a Process and a Mechanism*, Proc. HCI-IHM 2001, to appear

T.C. N. Graham, L. Watts, G. Calvary, J. Coutaz, E. Dubois, L. Nigay. *A Dimension Space for the Design of Interactive Systems within their Physical Environments*, Proc. DIS 2000, 17-19 August 2000, ACM Publ. New York, pp. 406-416.