

## Wendy Elizabeth MACKAY

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Born 25 May 1956, Montreal, Canada, U.S./Canadian citizen. Married, two children.

## Education

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Ph.D. <i>Mass. Institute of Technology</i>	Management Technological Innovation	1990
M.A. <i>Northeastern University</i>	Experimental Psychology	1979
B.A. <i>University of Calif., San Diego</i>	Honors Psychology	1977

## Employment

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**Research Director, head of in|situ|, INRIA** **2002-present**

Research Director, at INRIA Saclay, Île-de-France, Responsible for the insitul research group in Human-Computer Interaction (6 full-time faculty and 18 doctoral students and research staff). Served as Vice President of Research, Computer Science Department, University of Paris-Sud, Orsay Campus (2007-2010). Elected member, Commission d'Evaluation, INRIA (2008-2010). Promoted to Research Director 1 in 2008. Member CHI academy. Currently on sabbatical at Stanford University, visiting the HCI group, Computer Science.

**Spécialiste, INRIA** **2000-2002**

Senior researcher specializing in participatory design and augmented reality research. Principal investigator for InterLiving project (IST Disappearing Computer Initiative). Principal investigator for "Augmented Notebooks" project with the Institut Pasteur, Paris.

**Professor, Dept. of Computer Science, University of Aarhus** **1998-2000**

Visiting professor, with research and teaching responsibilities. Taught undergraduate and graduate level course in various aspects of human-computer interaction. Principal investigator on the CPN/Tools project.

**Professeuse Associée, Université de Paris-Sud** **1997**

Visiting professor, with research and teaching responsibilities. Taught undergraduate and graduate level course in various aspects of human-computer interaction (conducted in French).

- Senior Researcher, Centre d'Études de la Navigation Aérienne** 1996-1997
- Directed a research project to explore a new approach, augmented reality, for supporting air traffic controllers. Completed a 4-month ethnographic study of a team of 'en route' controllers in Paris (Athis Mons), and then directed a year-long participatory design project. Developed Caméléon, a working prototype that preserves the controllers existing, successful work practices with paper flight strips, while providing direct access to RADAR and other on-line functions.
- Senior Research Scientist, Rank Xerox EuroPARC** 1991-1995
- Manager of multimedia research group conducting research in the areas of augmented reality, media spaces, multimedia editing, scenario-based design and user innovation. Awarded a 3-year ESPRIT research grant, (710,000 ECUs) entitled EuroCODE, and developed the design and initial prototypes for the "High Road Demonstrator"; which enables construction supervisors at the Great Belt bridge construction project in Denmark to use their engineering drawings to access a media space, multimedia information and to share their hand-written annotations. Established the EuroPARC technical report series.
- GEEP Fellow. Business and Office Systems Engineering, Digital.** 1987-1990
- Scholarship awarded to complete Ph.D. in Management of Technological Innovation at the Massachusetts Institute of Technology.
- Technical Liaison. External Research, Digital.** 1986
- Responsible for External Research's part of contract negotiations between Digital and MIT on Project Athena's continued funding. Member of Digital's MCC Human Interface Steering Committee.
- Research and Development Manager. Educational Services, Digital.** 1983-1986
- Developed a 5-year strategic plan, with a yearly budget of \$2 million and 18 professional researchers. Managed three research groups concentrating on: Human Engineering, Multi-Media Information Architectures, and Integrated Learning Environments. Reduced cost of multi-media software development to 1/5 of previous costs with a significant increase in user satisfaction. Appointed to Digital's Sponsored Research Board and editor of the R&D Technical Report Series and the R&D Newsletter. Taught research methods to 12 Master's student interns from U. Mass. Amherst.
- Visiting Scientist. Lab for Computer Science, M.I.T.** 1983-1986
- Conducted research on Boxer language with Prof. Hal Abelson. Managed technology transfer between M.I.T. and Digital and creation of a multi-media version of Boxer at Digital.

- Cost Center Manager. Systems Based Courseware, Digital. 1982-1983**  
 Managed \$2 million/year cost center with two supervisors and 33 developers. Produced over 35 software products all shipped on time and on or under budget. First in the industry to provide integrated computer-based instruction at first- customer ship of all three of Digital's personal computers. Reduced hot-line calls by 30%. Considered the industry standard (Seybold Report).
- Unit Manager. Systems Based Courseware, Digital. 1981-1982**  
 Reduced average software development cost by 60%, which resulted in new projects and 300% growth. Automated budgeting and billing. Developed new authoring language, created software and graphics standards, and established process for interactive videodisc course development.
- Educational Specialist. Systems Based Courseware, Digital. 1979-1980**  
 Designed and programmed Digital's first two computer-based instruction courses. VMSCAI was Digital's top-selling packaged course. EDTCAI was described as "so effective that we use it as a design model for developing our own in-house computer-based courses." Created a toolkit/program generator that significantly reduced course development time, participated in the design and development of a new authoring language, trained 24 new course developers.
- Lecturer. Department of Psychology, Northeastern University. 1979**  
 Taught laboratory course on animal learning and human memory.
- Teaching Assistant Department of Psychology, Northeastern University 1977-1979**  
 Co-taught course on tutoring techniques for undergraduate tutors. TA for several courses in Experimental Psychology.
- Teaching Assistant. Department of Psychology, U.C. San Diego. 1975-1977**  
 Co-taught physics course entitled "Frontiers of Science" (with Professor Bernd Matthias). TA for courses in Statistics, Experimental Psychology, and Physics.

## Honors, Fellowships and Awards

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Elected to ACM CHI Academy, Phi Beta Kappa, Honors Psychology B.A., magna cum laude, California Scholarship Federation, National Honor Society, Northeastern University Fellowship, Digital Equip. GEEP Scholarship. *Communications of the ACM* 1993 Special Issue on *Computer-Augmented Environments*: American Publishing Association award for best special issue of a journal in any field. *La Recherche*, Entretien du mois, September, 2007, *Adoptons l'informatique participative*. Top 10 B-to-B Media Sites, Crain's Media Business, "New Site Launches" category for the *Communications of the ACM* web site of which I was an editorial board member. IHM'09 Best Demonstration Award, *L'écriture augmentée : enregistrer des explorations interactives avec une feuille de données scientifiques*. ACM/CHI'09 Best Paper Award (top 1% of accepted papers): *Musink: Composing Music through Augmented Drawing*. ACM/CHI'11 Best paper award: *Mid-air Pan-and-Zoom on Wall-sized Displays*.

## Research Activities

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I have been responsible for a number of 'firsts' in my career: at DEC, I wrote the original toolkit software for IVIS, the world's first commercial interactive video system, before the Macintosh. At MIT, I conducted the first major study of electronic mail and cognitive overload in the 1980's. At Xerox PARC, I launched a new area of ubiquitous computing in the 1990's with the publication of an award-winning special issue of CACM on *Computer Augmented Environments*. My multi-disciplinary design methods are taught around the world, including Stanford, MIT, Georgia Tech, U. Washington, U. Penn and U. British Columbia. I am continuing to work on other themes, co-adaptive systems and communication appliances, which I believe will have a big impact in the future.

### Multidisciplinary research methods:

I am interested in how to triangulate across research disciplines and have developed methods for creating and evaluating interactive software, including generative deconstruction (deconstruction of elements of interfaces, followed by recombination to generate novel forms of interaction), Generative Walkthroughs (a technique for redesigning interfaces that systematically incorporate socio-technical design principles), *Video Prototyping* (interactive 'sketching' ideas with video), the *Interactive Thread* (multidisciplinary group design and evaluation exercises), *Technology Probes* (technology installed 'in situ' that provides social science, engineering and design results) and *Touchstone* (a platform for exploratory experiment design). The *CPN2000* project embodied this multidisciplinary participatory design approach. The *Interaction Museum* is a repository of historical and current interaction techniques, designed to facilitate transfer of innovations from research to industry.

### Mixed reality and augmented paper:

At Xerox PARC's European lab, my research group introduced the concept of augmented paper interfaces, and explored how to integrate paper with on-line

multimedia information. Projects include: *Video Mosaic* (a digital desk that permits paper storyboards to act as the interface to an on-line video editor), *Ariel* (engineering supervisors use paper engineering drawings as their interface to a media space, on-line computer system, and as a method of sharing informal annotations), *Digital Drawing Board* (permits hand-drawn 2-dimensional sketches to be projected as 3-dimensional drawings), and *Caméléon*, augmented flight strips for air traffic controllers. Since I joined INRIA, I have developed the *A-Book* and our current hybrid *ReActive Laboratory Notebook* to integrate paper-based and electronic information for research biologists and *Paperoles* for music composers. *FamilyNet* and *Telebeads* provide simple-to-control tangible network interfaces for managing access to *Communication Appliances*.

#### **Co-adaptive systems:**

My thesis at MIT introduced the concept of co-adaptive systems, supported with empirical data from a five-month study of software customization at MIT and a two-year study at Xerox PARC of the Information Lens, an electronic mail filter. Projects included: *Argus*, a generalized mail filtering and annotation system and *Pygmalion*, multi-media message system that manages the trade-off between sending and receiving public and private multimedia messages. *CPN2000*, developed at U. Aarhus, and *A-book*, *PageLinker* and *Paperoles*, developed at INRIA, all provide users with feedback about previous actions that can be used to help them co-adapt their future use of these systems. The current *ReActive Notebook* prototype and the Reactivity project with the INRIA-Microsoft joint lab build on this concept.

#### **Multimedia and Mediated Communication:**

My current research at INRIA involves *Communication Appliances* which provide an alternative view of ambient intelligence, by providing simple, single-function devices for close family members to stay in touch. My group has developed a variety of systems to support: remote couples (*mSSS*, *WeMe*, *Nightboard*), families (*MirrorSpace*, *MessageProbe*, *VideoProbe*, *Tokitok*), the elderly (*MirrorSpace*, *MarkerClock*, and multimedia devices for children, including *Tangicam* (using a frame to take and control photos), *SketchCam* (for 'sketching' with real images) and *StoryTable* (a video 'puppet theater'). This research continues from early in my career, when I was responsible for managing the development of *IVIS*, the industry's first interactive videodisc system, *Producer*, a multimedia authoring language and over 30 computer-based education products, all developed with a toolkit I designed and implemented. Later projects at Digital, MIT and Xerox included: the *NavDisc* (mixed real images from Penobscot Bay, Maine, with computer-generated images to create a dynamic multimedia navigation simulation), *Video Boxer* (based on the Boxer language), the first generalized *Wizard of Oz* prototyping tool (used to test intelligent tutoring strategies), *EVA* (exploratory data analysis of multimedia data), *DIVA* (a stream-based editor for managing and analyzing temporal data, particularly video, recently updated as *DASE*), and the world's first international media space, *WAVE* (connecting design and manufacturing engineers in England and the Netherlands, in 1984).

## Software Development

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Since arriving at INRIA, I have supervised the design and development of a series of mixed reality and communication-based applications including: A-Book, mSSS, Nightboard, Tangicam, SketchCam, WeMe, MissU, MarkerClock, FamilyNet and Telebeads. I have also supervised the design of novel interaction techniques, including OctoPocus and a visual recognition system for interactive object tracking. InlSitul has developed a wide variety of toolkits, including Metisse, ZVTM, SwingStates, InfoVis, Nùcleo, which are distributed to the academic community, and a variety of applications, including PageLinker, Prism hybrid paper-electronic laboratory notebook, VideoProbe, MirrorSpace, and Circa. Metisse is now distributed by Mandriva as one of the window managers for their Linux distribution. I have also managed the development of the Interaction Museum, an on-line repository of interaction techniques, and Touchstone, a platform for exploratory experiment design, execution and analysis.

At University of Aarhus, I co-managed a 2-year development project, CPN2000, a two-handed, post-WIMP graphical interface for managing Coloured Petri Nets -- the first real-world application that integrates the most advanced interaction techniques in our field. The software is now distributed to over 5500 organizations (research and industry) in 130 countries. At the University of Paris-Sud, I co-designed DIVA (1998), which builds upon my earlier multimedia editing system, EVA, but provides a more rigorous stream-based architecture. At the CENA, I managed the design and development of Caméléon, paper-based augmented reality prototype, which allowed air traffic controllers to use paper flight strips as a way of communicating with RADAR and the ATC training system.

At Xerox, I supervised the development of: Khronika (1991), a distributed event server, Portholes (1991) and RAVEN (1992), the first media spaces used for an entire organization and WAVE (1994), the first international mediaspace. I designed two of the first augmented reality prototypes, which used paper as the user interface to a computer. Video Mosaic (1994) merged paper storyboards with on-line multimedia editing, while Ariel (1995) provided construction engineers with a way to capture and share hand-written annotations on their engineering drawings, and to communicate using those drawings as the interface to a media space.

I was Digital Equipment's technical liaison to MIT's Project Athena, the \$100 million research project that produced the X Window system. I created a multimedia group, bringing the IVIS hardware and Muse multimedia authoring system from my research group at DEC. We collaborated with the Media Lab to create a number of 'firsts' in multi-media educational software, widely used throughout MIT and later distributed world-wide. I wrote EVA (1988) in Muse, the first multimedia system to support dynamic annotation and exploratory data analysis. I also managed Pygmalion (1989) a multimedia electronic communication system and Argus (1990) the first mail filter to handle diverse mail systems and bulletin boards. Digital filed a patent on Argus and it was distributed world-wide in the first Open Software Foundation research tape.

At Digital Equipment Corporation, I wrote Digital's first interactive educational software products: VMSCAI (1980) & EDTCAI (1981) which were delivered to over 70,000 customers and then bundled with VAX/VMS due to customer demand. I then wrote the toolkit for authoring multimedia software with IVIS, and was promoted to manage what became a multi-million dollar production group that created over 30 interactive software products on seven different operating system platforms. We delivered all products on time, and on or under budget. The Seybold Report said of our software: "Considered the industry standard."

## Technology transfer

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I arrived at INRIA in 2000 and obtained approximately 1 million euros of research funding within the first year. I was principal investigator for the 3-year interLiving project (FET, IST FP5, with KTH in Sweden and Univ. Maryland) to develop technologies, together with families, to facilitate communication within the family through shared interactive surfaces. The interLiving project resulted in a patent for the FamilyNet. I also received funding from the EuroControl CARE Framework to run the FATCUI workshop on the future of air traffic control user interfaces. InlSitul's recent contracts include: Convivio (IST network of excellence), MicroMégas (ACI/Masses de données), Indigo (RNTL), France Télécom, Webcontent (RNTL), ANR TechLog project (IStar), Digiteo ICI-TV OMTE project, the Reactivity project with the INRIA-Microsoft joint research lab, WILD (combined funding from Digiteo, U. Paris-Sud and INRIA).

Prior to INRIA, I co-authored the successful proposal for a 3-year, 10-partner ESPRIT II project, called EuroCODE (1992-1995), for which we received over £1 million. I managed an eight-member group that resulted in Ariel and several efforts within Xerox to turn the ideas into a product. Digital filed a patent based on the Argus mail filter I designed at MIT and Xerox filed a patent on an enhanced spreadsheet that I co-designed with A. Henderson. My earliest research at Digital was shown at a DEC User's Conference; when large numbers of customers requested the software, I was told to turn it into a product and I ended up spending three years managing a successful product development group.

Patents: Argus (Digital), 3d Spreadsheet (Xerox) A-book (INRIA), FamilyNet (INRIA).

## Supervision of Students

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I am the head of the InlSitul research group. Created in 2002 with two faculty and one Ph.D. student, the group ranges from 22-26 members, currently with nine permanent faculty and varying numbers of Ph.D. students, post-docs, interns and research staff. AVIZ, headed by J.D. Fekete, was spun off as an INRIA group in 2007, and MINT was co-created by N. Roussel as an INRIA group in Lille in 2011. Four of my Ph.D. students have graduated and I am currently supervising two Ph.D. students.

### Doctoral Students

**Jean-Baptiste Labrune**, funded with an Allocation Doctorale, graduated in 2007. After two years as a post-doc at MIT, he returned to France and is now a researcher at Alcatel Lucent Research labs. His thesis, “Children and creative technologies: an exaptive phenomenon” involved the design, development and testing of a variety of highly innovative technologies in the domain of tangible interaction and communication appliances. We co-wrote three papers together, as well as two workshop papers.

**Yann Riche**, funded with an Allocation Doctorale, graduated in 2008 and currently works for Microsoft in Seattle, with his wife (a former INSITU Ph.D. who is now at Microsoft Research). His thesis, “Designing Communication Appliances to Support Aging in Place”, involved longitudinal studies of mediated communication technology for the elderly and contributed to the ICI-TV OMTE project. We co-wrote 1 journal article, 2 conference papers and 2 workshop papers.

**Aurélien Tabard**, funded with an Allocation Doctorale, graduated in 2009 and is currently a post-doc at the Univ. of Copenhagen, after a 6-month internship at ENST Paris-Tech. His thesis, “Supporting lightweight reflection on familiar information”, involved the design, development and longitudinal studies of augmented laboratory notebooks and other tools for biologists, as part of the MSR-INRIA Reactivity project. We co-wrote 3 papers and 2 workshop papers and co-organized a workshop.

**Nicolas Masson**, funded on the ReActivity contract, graduated in 2009 and is currently working as a consultant. His thesis, “Espace de conception et système d’interopérabilité, une aide à la création et à la combinaison des Communication Appliances”, involved the design, implementation and longitudinal study of several communication appliances for distributed family members. We co-wrote two papers and two short or workshop papers.

**Olivier Bau**, funded with an Allocation Doctorale, graduated in May 2010. His thesis “Interaction Streams: Helping Users Learn, Execute and Remember Expressive Interaction Grammars” involve a series of innovative interaction techniques that combined machine learning and human-computer interaction approaches to enhance both expressivity and learning. He spent 3 months as an intern at MIT and is now a post-doc at Disney Research labs, joint with Carnegie Mellon University. We co-wrote 4 research articles.

**Julie Wagner**, funded on an INRIA Cordi grant, started her Ph.D. in 2009 in the area of tangible interaction. We have co-written two CHI papers, including one with a best paper award at CHI'11 and are collaborating on three more. Stéphane Huot of linsitul is co-supervising her thesis.

**Jérémié Garcia**, funded with an Allocation Doctorale, started his Ph.D. in 2010. He is co-supervised by Carlos Agon, at IRCAM, Paris, and Theophanis Tsandilas, at linsitul. He is working on interactive paper with musicians. We co-wrote a paper published at NIME'11.

#### Habilitation Committees

**Nicolas Roussel**: *Nouvelles formes de communication et nouvelles interactions hommemachine pour enrichir et simplifier le quotidien* (2007, Université Paris-Sud, jury)

**Moutaz Hascoët**: *Visualisation d'Information: Modélisation, Interaction et Nouveaux Dispositifs* (2007, Université Montpellier, rapporteur).

#### Ph.D. juries

**Lars Erik Holmquist**: *Breaking the Screen Barrier* (jury/reviewer, 2000, University of Stockholm, Sweden),

**Magnus Morin**, *Multimedia Representations of Distributed Tactical Operations* (thesis opponent, 2002, Linköping University, Sweden),

**Judith Aston**: *Interactive Multimedia: an Investigation into its Potential for Communicating Ideas and Arguments* (jury/rapporteur, 2003, Royal College of Art, England).

**Phillippe Renevier**: *Systèmes Mixtes Collaboratifs sur Supports Mobiles : Conception et Réalisation* (jury/ reviewer, 2004, Université Joseph Fourier, Grenoble, France)

**Nguyen-Thong Dang**: *Stereoscopic 3d Visualization Environment: An Analysis of Interaction and a Proposal of New Interaction Techniques* (jury/ reviewer, 2006, EuroCONTROL, Bretigny-sur-Orge, France)

**Thomas Riisgaard Hansen**: *Pervasive Interaction* (jury/ reviewer, 2006, University of Aarhus, Denmark),

**Frédéric Lemoine**: (president of the jury, 2007, University of Paris-Sud).

**Scott Sherwood**: *Designing to Support Impression Management* (jury/ reviewer, 2009, University of Glasgow, Scotland)

**Céline Coutrix**: *Systèmes Mixtes : Conception et Prototypage* (jury/ reviewer, 2009, Université Joseph Fourier, Grenoble, France)

#### Doctoral Consortia

Co-Chair, CSCW'02 Doctoral Consortium, Jury member, AFIHM Rencontres Jeunes Chercheurs, Jury member, Interact'05 Doctoral Consortium, Jury member, CHI'07, Doctoral Symposium, Jury member, UIST'07 Doctoral Consortium, and Jury member UIST'09 Doctoral Symposium

#### Architecture juries

**Zhong-Yi Quack**: *Augmented Architecture* (2005), Ecole Spécial d'Architecture

*Narumi Kang* (2006), *Revelation publique*, Ecole Spécial d'Architecture  
*Victoria Miny* (2006), *Revelation publique*, , Ecole Spécial d'Architecture.

#### **Masters, student interns and Visiting Ph.D. students**

Thimothée Doutraux (MIT, haptic interfaces), Manoela Araujo (Ecole Polytechnique, Communication appliances), Guillaume Pothier (Ecole des Mines, Augmented Laboratory Notebook, INRIA patent), Jacob Eisenstein (MIT, vision-based interaction, 1 paper), Evelyn Eastmond (MIT, Prism hybrid laboratory notebook, 1 paper), Olivier LeFloch (Ecole Polytechnique, stream-algebra), Danielle Lottridge (Ph.D. committee at the University of Toronto, communication appliances and participatory design - 2 papers and a poster, co-taught HCI courses in 2006 and 2007 at the University of Toronto), Ilaria Liccardi (U. Southampton, wikibooks, collaborative peer-review, 3 papers in submission), Audrey Girourard (Tufts University, brain-computer interfaces) and Yuan Shengqiong (Wuhan University, stream visualization, 1 paper). I have also supervised a number of master's students from U. Paris-Sud, including Valerian Wauthier (communication appliances), Feriel Daoudi (augmented photo album), Pascal Costa-Cunha (paper-based laboratory notebook, 1 paper) and work with all of the Ph.D. students in INSITU, providing advice on experimental design, statistics and how to present their work in English.

I run a bi-weekly Ph.D. seminar for the INSITU group (since 2004) which is primarily intended for doctoral students, but often includes advanced masters, visiting interns and post-docs. I use this seminar as an opportunity to teach research methods, including experimental design and statistics, discuss practical issues of conducting research (writing research papers, choosing research venues, reviewing papers, how program committees work, presenting work). Students, with my help, choose an article or a chapter for everyone to read, related to some element of their work. They then present this to the group and then lead a discussion of the issues it raises with respect to their own research.

Every year, I teach a 12-hour course, Technical Writing in English, to Ph.D. students in the Computer Science Dept. (LRI and LIMSI) as well as students from Supelec and other departments at U. Paris-Sud. I also ran two special workshops for Ph.D. students at LRI, to help them prepare their posters in English for the AERES 4-year evaluation. I ran a version of this course at Stanford in 2011.

## **Teaching**

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I am on sabbatical at Stanford (2010-2011) and co-taught a course at Stanford: CS.477 *Reinventing Interactive Systems*, that explored the concepts of Instrumental Interaction and Co-adaptive Systems, with undergraduates, graduate students and faculty at Stanford. I will be teaching a course next winter, CS.377, *Prototyping Interactive Systems*, that relates to the course I teach at U. Paris-Sud. In the 2011-2012 academic year, I will also return to France to teach the CEI course, in the new Master's degree program in Human-Computer Interaction.

I have taught annual courses in human-computer interaction in France and Denmark since 1994. Courses taught in French:

- Conception participative (2000-2003)  
Univ. Paris-Sud, DEA d'Informatique, 6h lecture, 25 students
- Technical Writing in English (2007-2010)  
Univ. Paris-Sud, Ecole Doctoral (3 yrs), 12h lecture, 16-20 students
- Recueil de données par interviews et questionnaires (2007)  
Univ. Paris-Sud, Ecole Doctoral, 12h lecture, 7 students
- Conception et évaluation des systèmes interactifs (2004-2010)  
Univ. Paris-Sud, Master (Pro, Recherche, BIBS) (6yrs), 24h, 35-55 students  
Univ. Paris-Sud, DESS SCHM (2yrs), 20h, 30 students  
Univ. Paris-Sud, Master Recherche & Professionnel (2yrs), 20h, 30 students  
Univ. Paris-Sud, NFI (1 year), 22h, 60 students  
Univ. de Paris VI, DESS Intelligence Artificielle (1yr), 9h, 27 students  
Ecole des Mines de Nantes (4 years), 15h, 10-15 students

Courses taught in English (1 year each):

- Design and Evaluation of Interactive Systems  
Univ. Aarhus, Computer Science, 9h, 27 students
- How to Design Experiments  
Univ. Aarhus, Computer Science & Multimedia, 18h, 10 Masters' students
- Post-WIMP Interaction  
Univ. Aarhus, Computer Science & Multimedia, 36h, 24 Masters' students
- Advanced Interaction Techniques  
Univ. Aarhus, Computer Science, 36h, 20 Masters' students
- Designing Augmented Artifacts  
Univ. Aarhus, Computer Science, 36h, 10 Masters' students
- Participatory Design  
Univ. Aarhus, Computer Science, 18h, 20 Masters' students
- Writing Workshop  
Univ. Aarhus, Computer Science & Multimedia, 12h, 10 Masters' students
- Technical Writing in English  
Univ. Paris-Sud, Ecole Doctoral (4 yrs, 12h lecture, 16 students)

Ecole d'Eté Jeunes Chercheurs sur l'Interaction Homme-Machine, GDR-PRC  
Communication Homme-Machine: 3 lectures and 4 TDs/TPs (2 weeks, 45 participants).

Ecole d'Eté EDF/CEA/INRIA sur l'Interaction Homme-Machine (2 weeks, 50 participants): 10h lecture, 20h TDs.

Instituts Theseus & Eurecom (Sophia-Antipolis): Multimedia courses (40h lecture/TD, 20 students at Theseus, 10h lectures, 10 students at Eurecom).

Campus Thomson (Jouy en Josas): Multimedia course (6h lecture, 150 participants).

Home Care Summer School, Edinburgh (4h lecture, 50 students)

IVREA Summer School, Italy (8 h lecture, 40 students)

## Professional Activities

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### Elected & Volunteer Offices:

INRIA Commission d'Evaluation (2007-2010), Co-founder & Chair, Greater Boston SIGCHI (1983-1986), ACM/SIGCHI: Treasurer (1982-1986), Chair (1986-1988), Executive Vice Chair (1999-2001), Vice-Chair Publications (1999-2001), SIGCHI Publications Board Chair (1999-2001), Quality Task Force (2002). ACM Publications Board (1986-1988), ACM/SIGBoard (1986-1988) ACM Nominations Committee.

### Program Chair:

ISMAR'10 Area Chair, CHI'10 Area Co-Chair, CHI'09 Area Chair, UBIMOB'08 Program Co-Chair, ECAI'08 Area Chair, DIS'02 Program Co-Chair, DARE2000 Program Chair, Multimedia'99 Applications Track Chair, CHI'94 Technical Program Chair, Virtual & Augmented Reality Chair '93.

### Conference Chair:

CHI'2013 (ACM Conference on Human Factors in Computing systems) ECSCW'05 (European Conference on Computer-Supported Cooperative Work), DARE '00 (Designing Augmented Reality Environments).

### Workshop Chair:

CHI'09 *Interacting with Temporal Data* Co-Chair, UIST'07 *20th Anniversary Celebration* Co-Chair, CHI'06 *Awareness Systems* Co-Chair, *Interaction Museum Symposium I* (2006) Chair, *Interaction Museum Symposium I* (2006), Chair, Interactive Thread (Tales of the Disappearing Computer'03) Chair, Interactive Thread Chair, (DIS'02), CSCW'02 Doctoral Consortium Co-chair, Disappearing Computing in the Domestic Environment (DCNet), Research Directions in Situated Computing (CHI 2000), Affordances (2000, CHMI), Scientific Writing for non-native English speakers (1999, University of Aarhus), Scenario-based Design (CSCW'94), first workshop on Augmented Reality (1993, MIT), Video as a Research and Design Tool (1989, MIT).

### Associate Program Chair:

CSCW'08, UIST'08, UIST'07, CHI'07 Doctoral Consortium, CSCW'06, CHI'06, SOUPS'06, NORDICHI '06, CHI'05, UBIMOB'05, Critical Computing, '05, Less is More '05, AVI'04, CSCW '02, UIST'02, AVI'02, Ubicomp '02, NordiCHI '02, ECSCW'01, DIS'00, CHI'00, CSCW'00, ECSCW'99, IWAR'98, CHI'98, Multimedia '98, ErgoIA'98, IHM'98, DIS'97, CHI'97, CHI'96, CSCW'96, Multimedia'96, CHI'95, Multimedia'95, CHI'94, CSCW'94, CHI'92, CHI'91, CHI'91, CHI'91 Doctoral Consortium.

### Editorial Boards:

Co-Editor Human Computer Interaction (HCI) Special Issue on Awareness Systems, Co-Editor-In-Chief *IJHCS (International Journal of Human-Computer*

*Studies*, 2004-2005), *ACM/TOCHI (Transactions on Computer-Human Interaction*, 2003-2009), *RIHM (Revue d'Interaction Homme-Machine* 1998-2008), *Multimedia Systems*, *ACM Interactions Magazine*, 2000-2008), *ACM/TOIS (Transactions on Office Information Systems*, 1991-1993), *JEC (Journal of Educational Computing)*.

#### **Award Committees:**

Franklyn Institute's Bower Award (2007) (\$250,000.00, oldest science prize in US), ASTI prix de thèse jury (2007), ACM/SIGCHI Awards committee (2004-2006), CHI'06 Best Paper Award committee.

#### **Evaluation Committees:**

EU 6th Framework Multi-modal program reviewer (2004), OFTA (Observatoire Français des Techniques Avancées), "Informatique Diffuse" group member, TAICHI FP6 Project, Wales, Expert reviewer (2005), EPSRC Senior Fellowship expert reviewer (2006), EPSRC Equator Evaluation, expert reviewer (2007), Stanford University HCI jury (2007), CHI'07 Doctoral Consortium faculty, UIST'07 Doctoral Consortium faculty, INRIA AVIZ project evaluation (2007), INRIA GRAVITE project evaluation (2007), *ANR VERSO Réseaux du Futur et Services*, jury member (2008), ANR Jeunes Chercheurs, reviewer (2008), INRIA Commission d'évaluation, elected representative (2008-present), Work Group Committees: Mobility (head), Evaluation (member), Women (member). Comités d'évaluation, Univ. Paris-Sud (2007-present): BQR Financier, BQR Emploi, ANR Préciput, MRM, ASTRE, Sesame. Habilitation Evaluation Committee, Univ. Paris-Sud (2008-present). European Science Foundation Exploratory Workshop, expert reviewer (2008), EPSRC Large Grants, expert reviewer (2008).

#### **Keynote addresses and Invited Lectures: (since 2002)**

2002: *Power & Simplicity*, CHI'02 Forum Keynote Address, Minneapolis, USA, *Techniques vidéo pour la conception participative*, Séminaire STIC, CNAM, Paris, *Integrating Multiple Perspectives on Participatory Design: InterLiving, Family Technologies Workshop*, CHI'02, Minneapolis, USA, *Les Cahiers de Laboratoire Augmentés*, Invited seminar, CNES PIN, Paris, *Les Cahiers de Laboratoire Augmentés*, Invited seminar, Institut Pasteur, Paris, *In Situ Computing: Memorable Yet Invisible?*, HCI 2002 Keynote Address, London, *Multimedia Representations of Distributed Tactical Operations*, Opponent talk for Magnus Morin thesis, Linköping, Sweden, *InSitu Computing*, Invited Seminar, University of Linköping, Sweden, *La Réalité Augmentée : Les Objets Physiques Comme Interface*, Colloquium "Devenir ergonomique de la relation d'aide", CNRS-STIC, Paris.

2003: *Linking Real and Virtual Worlds*, Invited Address, Convivio Workshop, *Design Methods for Home Technologies: Interactive thread and Technology Probes*, Distinguished Lecture, Oregon Research Institute Distinguished Lecture Series, USA, Keynote, *Participatory Design: Inspiring design for and with families*. Invited Address, Nomadic Media Workshop, *Delighting Our Customers: What can they tell us?* Keynote, *Philips Human-Computer Interaction Conference, Netherlands*, *Air Traffic Control and Mixed Reality*, Invited Address, Raytheon Corporation, Canada, *Interactive Thread*, Invited Address, Tales of the

Disappearing Computer'03, Santorini, Greece, *Mixed Reality: Reinventing Paper*, Distinguished Lecture, University of British Columbia Distinguished Lecture Series, Vancouver, Canada. *Augmented Reality and Technological Innovation*, Seminar on Safety-Critical systems, Aarhus. Denmark

2004: *Interaction Située, Conception Participative et Communication Médiatisée*, Invited Address, France Telecom, *Les Nouvelles Interfaces Homme-Machine*, Ring Talk, France, *Situated Interaction*, Invited Address, Hitachi, Rocquencourt, France, *Cognitive styles in innovation: designers, scientists and engineers*, Invited Address, ISCOM'04, Venice, Italy, *Systems Co-Adaptatifs*, ASPlasticité Workshop, Grenoble, France, *Situated Interaction*, Invited Address, SAP, France, *Re-inventing the Familiar: Bringing Mixed Reality to Air Traffic Control Interfaces*, Invited Address, Air Traffic Control Seminar, Thales, France. *Communication Appliances*, Invited Address, Philips Corp, Redhill, England.

2005: *Communication Appliances*, Invited Address, University of Aarhus, Denmark, 2005, *Designing Interaction not Interfaces: Participatory Design in Practice*, Invited Seminar, ILOG Corporation, France, February 2005: Wendy Mackay, *Generative approaches to simplicity in design*, Invited Address, Less is More Conference '05, Microsoft Research, Cambridge, England, *Situated Interaction*, Invited Address, Xerox Research Centre Europe, France, *Designing Interaction not Interfaces*, ANVAR, France, *Interaction Ambient*, Invited Address, OFTA (Observatoire Français des Techniques Avancées), France, Invited Address, Oséo anwar IdF, France

2006: Keynote, Journée Interfaces Innovantes organisée par la FING (Fédération pour un Internet Nouvelle Génération), Paris, *Augmented Paper Then and Now* COPADD'06 Keynote, Banff, Canada.

2007: *ReActivity: Multiscale Visualisation for Scientists*, Invited address, INRIA/Microsoft Lab Inauguration, *Quels sont les critères d'attractivité d'un grand campus de recherche international ?*, LIST/CEA: Perspectives on Digiteo Seminar, Abbaye de Cernay, *Intelligence Ambient : Applications Domestiques*, OFTA Seminar, Paris. *Augmented Paper*, Stanford University HCI Seminar, Invited Address, USA. *Air Traffic Control Revisited*, Invited Address, University of California, San Diego, USA. *ReActive Laboratory Notebook*, Invited Presentation to C. Mundie, Microsoft president, *Ambient Communication in the Home*, Invited address, AIR&D Seminar on Ambient Intelligence, Paris.

2008: *Participatory design within and across disciplines*, Keynote, C5'08 6<sup>th</sup> International Conference on Creating, Connecting and Collaborating through Computing (C5'08), Poitiers. *Participatory design: Designing for and with users*, Keynote Address, SAKAI conference, Paris., *Faire un logiciel simple ... C'est difficile !*, Invited talk, Unithé ou Café ?, Saclay, *Intelligence ambiante : De la perspective de l'utilisateur*, Invited Address, ICTC'08, International Contactless Technologies Forum, Lille. *Comment habiter ce monde ?* Panelist, VIA Valorisation of Innovation, Paris.

2009: *INSITU*, Invited Address, Avancity Forum on Transportation, Rocquencourt, *Systèmes d'Interaction*, Invited Address, Avancity, Paris,

*InterLiving: Ubiquitous Communication Appliances*, Invited Lecture, BB-UbiComp'09, London, *Participatory Design*, Invited Tutorial, Crédit Agricole, Paris, *Interaction Homme-Machine : Conception des Interfaces*, Invited Course, Ecole Normale Supérieure, Cachan, *Intelligence Ambient*, Panelist, Epita, Paris, *Les usages des systèmes d'information et leur co-évolution : Co-Adaptive Systems*, Invited Address, Fondation Cigref, Paris, *Communication Appliances*, PeerCare: Social Networks for Senior Citizens, Invited Tutorial, Home Care Systems Summer School, Edinburgh, *Ambient Communication in Peer-to-Peer Social Networks*, Invited Address, Rencontres INRIA-Industrie, Lille, *Conception Participative*, Inauguration of the WILD wall.

2010: *Human-Computer Interaction*, Ecole Polytechnique, Invited Lecture. *Interaction avec le Monde Réel*, Journée de Recherche en Informatique, LRI, Invited Lecture, *Situated Interaction: Creating a Partnership between People and Intelligent Systems*, G. Morgenstern Colloquium, INRIA, Sophia Antipolis. *The Wild Platform: Wall-Size Interaction with Large Datasets*, INRIA, Sophia Antipolis. *Interactive Paper: From Creative Expression to Computational Power*, EPFL, Lausanne, Switzerland. *Situated Interaction* Stanford University, USA, October 2010.

2011: *Mediated Communication*. *Invited Address*, *European Career Fair*, *Massachusetts Institute of Technology*, *Cambridge, MA*, *Interactive Paper: From creative expression to computational power*. *Invited Address*, *U.C. Berkeley CNMAT Seminar Series*, *Berkeley, CA*, *Touchstone: Exploratory Design of Experiments*. *Stanford HCI Seminar*, *Stanford University*, *Palo Alto, CA*, *Designing co-adaptive human-computer partnerships or When HCI meets AI*. *UCSD Distinguished Lecture Series*, *La Jolla, CA*, *Comm Apps: An alternative to Facebook for helping people stay in touch with close family and friends*. *Invited Address*, *CMU Silicon Valley Seminar Series*, *Mountain View, CA*. <http://www.cmu.edu/silicon-valley/news-events/seminars/index.html>, *Interactive Paper: From creative expression to computational power*. *Invited Address*, *FXPal*, *Palo Alto, CA*, *Reinventing Interactive Systems*. *Invited Address*, *INRIA Silicon Valley Workshop*, *Berkeley, CA*, *Global Work*. *Center for Work, Technology, and Organization*, *Stanford University*, *Palo Alto, CA*, *Replication: Perspectives across disciplines*. *RepliCHI panel*, *CHI'11 conference*, *Vancouver, BC*, *Reinventing Interactive Systems*. *INRIA Silicon Valley Workshop*, *Berkeley, CA*

## Interviews

*Radio: France Culture, France Inter (x2), France Bleu*

*En Informatique, les utilisateurs sont les innovateurs*. *La Recherche*, No. 411, September, 2007, pp. 62-65.

*Laissons chacun augmenter sa réalité*. *Futurs(e)s*, No.2, 2000, p. 43.

*Réalité Augmentée : Le meilleur des deux mondes*. *Quand l'informatique complète le réel au lieu de le remplacer*. *La Recherche*, *Special Issue : L'ordinateur au doigt et à l'œil*. No. 285, Mars, 1996 pp. 32-36.

