# **HCI - a Lifelong Experience**

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### 1. Experiences Define the Role

My possible role in the HCI History project are related to my professional life: the trace of my main activities could be considered a **source**: I have been collecting information on, as well as contributing to, HCI knowledge, approaches, tools, and education for nearly 60 years. In these years, I have a designer and developer of HCI tools and techniques, HCI courses, HCI centered curricula, and educational material on HCI and related domains (visualization, human information processing, interactive art, service design), I have participated in, or acted as a reviewer of, national (Dutch) and international projects related to HCI, been active in founding , or volunteering, national, European, and worldwide professional organizations in the domain of HCI.

### 2. Multiple View Points

I have been a participating observer of the emerging and developing world of HCI

- in many countries since 1961: the Netherlands, Romania, Italy, Spain, and China;
- In European associations, communities, and projects;
- in IFIP Technical Comity 13;
- and in ACM SIGCHI.

# 3. Personal History

In 1961, being a 1st year Bachelor Psychology student, the Vrije Universiteit Amsterdam (VUA) discovered I was developing Algol-60 programs to analyse sociograms, and the university offered me a job: to set up a course and teach computer use and structured programming for social scientists, and to develop a research program on the potential application of computers in education. "Informatics" or "Computer Science" were no concepts at the time in my country, so the only way to monitor my activities was to occasionally ask a mathematician to check it made sense (which it did). The VUA also allowed me to teach these courses at 2 other Dutch universities.

Parallel to my 30 h/week job I finished a MSc in Cognitive Psychology with a thesis on "Mathematical Learning models as tools for computer assisted instruction", that lead to an invited presentation at the 1<sup>st</sup> IFIP World Congress on Computers in Education and ibn participating in a Panel with Seymour Papert and Gordon Pask (I was scared to death!). After graduation I received a tenure appointment, and with the help of MSc students I worked on programming languages for school kids, on mathematical models of human information processing and on psychological aspects of programming as an approach to problem solving. We also worked on learning styles and other individual differences in relation to computer use, and how to accommodate these by offering alternative interaction modes.

In the early 80's I started to collaborate with Thomas Green (again on interaction styles and languages), and supported by Elly Lammers, in 1982 we organized the 1<sup>st</sup> European Conference on Cognitive Ergonomics, which resulted in founding the European Association of Cognitive Ergonomics (EACE) and a conference series that still continues.

EACE immediately was a community where researchers form many European countries met, which lead to regular contact with HCI interested colleagues from the Austrian Computer Society, the German Software Ergonomics Group, the MACINTER activity (founded in the DDR), PPIG, and from 1984 with the organizers of the new Interact series.

In the early 80s my group at the VU also finished a large government funded project on In the early '80s, I additionally became the de facto leader of a large government funded project "Learning and teaching with computers in education". Moreover, the VUA allowed me to develop, and regularly teach, MSc courses on human computer interaction and on user interface design in 2 Romanian Universities. And I finally defended a PhD, on "Human-computer interaction - learning, individual differences, and design recommendations" From 1988, till 1991, I was university lecturer and senior researcher in HCI at both the departments of Cognitive Psychology and of Computer Science at the VUA. Then I exchanged my Psychology position for being head of the Cognitive Ergonomics department at the University of Twente( UT).

In the 90's the VUA allowed me to annually teach MSc courses on HCI and UID in Sienna University, Italy, department of communication sciences. On request I developed courses and taught at Granada University department of Psychology, University of Lleida department of Informatics and Industrial Engineering, and University of the Bask Country, San Sebastian, Laboratory of Human-Computer Interaction (all in Spain). Introducing these different department to each other lead to development of the Spanish coordination body in this domain (AIPO).

From 1998 till 2005 I was full time employed at the Vrije Universiteit, founding the department of "Multimedia and Culture", and developing the bachelor and master curriculum "Multimedia and Culture", one of two sub-directions in the Bachelor and Masters in Information Sciences.

In the 90s I was allowed Dutch government grants for cooperation in the HCI field with various Universities and industry departments, which resulted in many PhD projects. I participated and chaired. European Cost 11bis, Cost 11ter, and Cost 14 projects, and 11ter projects. And my Romanian connections resulted in my group at the VUA being the leader of the Tempus project Rococo where 4 Romanian Universities collaborated with 4 Western-European Universities.

In May, 2006 I took an additional position as full professor and head of department of Human, Computer, Society at the Dutch Open University, where I developed on-line courses User Interface Design, Visual Design, and Task Modeling, and the interactive course Human Information Processing. Since 2015 I am guest professor in this university, only supervising PhD students.

Since early 2007 I am back at the UT as guest professor in human-media interaction supervising PhD students. From 2009 - 2012 I was a guest professor to develop and teach design courses at the University of Sassari, Alghero, Italy, Faculty of Architecture, Department of Design: Visual Design; Task Modeling; Service Design and Design for Cultural Heritage). Since 2011 I am guest professor Usability Engineering at the Dalian Maritime University, Dalian, China, teaching 2 or 3 MSc courses a year on interaction design, human information processing, task analysis, service design, research methods for interaction design, and user centered web design. Since 2016 I am guest professor in Multimedia and Animation at the Lushun Academy of fine Arts, Shenyang, China, responsible for interaction design for cultural heritage and for user centered visual design.

I participate in ACM SIGCHI as a volunteer in many roles from 1989, succeeding to make this community more international and reaching out to new parts of the HCI world. I have worked in IFIP, originally as representative of the Dutch, currently of ACM.

At the VUA I enjoy the title of Emeritus now like Elly Lammers, my wife, but the VUA continues to be supportive to our activities and to provide an office.

# 4. Contributions

My Contributions to HCI are the education of many students in many parts of Europe and in China. These are now creating novel ideas, techniques, tools, and education. Apart from my publications, these students also contributed, or took the lead, in tools and techniques, of which here is a sample from the public domain:

- On Visual Design Patterns: <u>http://nibuk.nl/pattern/wizard/</u>
- On Human Information Processing for HCI designers: <u>http://www.opener2.ou.nl/opener/hip/</u>
- On Task Analysis and Design: <u>http://www.terconsi.it/taskanalysis/</u>
- On Task Modelling and Groupware task Analysis: <u>https://www.cs.vu.nl/~gerrit/gta/</u>
- My teaching videos are on Youtube and on YouKu (for China).
- An Invited talk at Interact 2018 on "Human-Computer Interaction the Life and Times, and the History" can be seen at: <u>https://youtu.be/S84PdxGjgSM</u>
- My summary of Ergonomic of Information Systems: a European View can be downloaded at: <u>http://eace.net/documents/AnItalianPioneerInCognitiveErgonomics.pdf</u>