



### **Academic career:**

Although, for financial reasons, he was not able to attend High School, he passed a state high school exam (HBS-B) in 1960, with average grade 8.5 (A+), which allowed him entrance to the Vrije Universiteit. From 1961-1965 he was research assistant at the department of Cognitive Psychology of the Vrije Universiteit, teaching (research methods, statistics, computer programming), developing computer programs for statistical techniques, methodological support for researchers, and initiating a research program in computer simulation of cognitive psychological processes. In 1966, after finishing his MSc thesis on “Mathematical learning models as tools for computer assisted instruction” he became research associate (assistant professor). In the early '80s, he additionally became the de facto leader of the project "Learning and teaching with computers in education". In the '80s he regularly taught MSc courses on human computer interaction and on user interface design in Cluj Napoca, Romania (Babes-Bolyai University department of Psychology, and technical University department of Computer Science).

From April 1, 1988, till July 1, 1991, he held a double tenure of university lecturer and senior researcher at both the departments of Cognitive Psychology and of Computer Science at the Vrije Universiteit of Amsterdam. He specialized on individual differences in cognitive functions and their ergonomic aspects, and on cognitive aspects of human computer interaction and ergonomic aspects of computers in education. In 1990 he defended his PhD thesis on "Human-computer interaction - learning, individual differences, and design recommendations". July 1, 1991, he started at the Technical University of Twente at the department of Ergonomics. During five year he held a double tenure of head of Department of Cognitive Ergonomics of the Technical University Twente and Associate Professor at the Department of Computer Science at the Vrije Universiteit of Amsterdam. In the 90's he regularly taught MSc courses on human computer interaction and on user interface design in Sienna University, Italy, department of communication sciences. On request he developed courses and taught in 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). He was instrumental in the development of the Spanish coordination body in this domain (AIPO).

From 1998 till 2005 he was full time employed at the Vrije Universiteit, head of department of a multidisciplinary group of researchers, Ph.D. students, and teachers in the domain of multidisciplinary design of interactive systems. He developed a bachelor and master curriculum "Multimedia and Culture", being one of two sub-directions in the Bachelor and Masters in Information Sciences. The group included (June 2004) the following disciplines:

- A Graphics designer
- A Music and sound designer

- An expert in haptic and tactile devices
- A Psycho-linguist
- A Cognitive Psychologists
- An Organizational Psychologist
- A Software Engineer
- A Cognitive Ergonomist

Mid 2004 he was appointed full professor in Interaction Design, in the same Department. He additionally taught in the post-academic European Masters on Ergonomics (organized by the faculty of Movement Sciences), in the Masters of Beta-Communication at the Vrije Universiteit. In December, 2005 he reached the age of 65, which, in the Netherlands at that time resulted in forced retirement. Though the department originally intended to prolong the appointment for 5 years and to continue offering Multimedia and Culture, politics changed the plans. His appointment at the Vrije Universiteit ended December, 2007. From December, 2007 he is emeritus professor at the Vrije Universiteit, originally still supervising PhD students and Multimedia and Culture Masters students. In May, 2006 he took an additional position as full professor and head of department of Human, Computer, Society at the Dutch Open University, Faculty of Computer Science. He developed on-line courses User Interface Design, Visual Design, and Task Modeling, and the interactive course Human Information Processing, he co-authored the new interactive course on Web Culture, he was Examiner for the Bachelor Project Informatics. Since 2015 he is guest professor in this university, only supervising PhD students at this university. He contributed to the original courses for the Dutch and British Open University on human-computer interaction and on a Dutch television program on this subject. He was the external referent responsible for the complete revised content of the Open University course on Human Computer Interaction and contributed to a planned revision of the course on Interactive Multimedia.

Since early 2007 he is guest professor in human-media interaction at the Twente University of Technology, supervising PhD students. From 2009 - 2012 he 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 he is guest professor Usability Engineering at the Dalian Maritime University, Dalian, China, teaching 2 or 3 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 he is 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.

He successfully supervised 17 Ph.D. theses:

- Roel Vertegaal (1998) *Look Who's Talking to Whom - Mediating Joint Attention in Multiparty Communication & Collaboration*
- Arjen P. de Vries (1999) *Content and Multimedia database Management Systems*
- Geert de Haan (2000) *ETAG - A Formal Model of Competence Knowledge for User Interface Design*
- Martijn van Welie (2001) *Task-based User Interface Design*
- Tom M. van Engers (2001) *Knowledge Management - The Role of Mental Models in Business Systems Design*
- Hartmut Benz (2003) *Casual Multimedia Process Annotations CoMPAs*
- Madelon Evers (2004) *Learning from Design: facilitating multidisciplinary design teams*
- Cristina Chisalita (2005) *Contextual issues in the design and use of information technology in organizations*
- Bert Bongers (2006) *e-Cology*
- Johan Hoorn (2006) *Software Requirements: Update, Upgrade, Redesign*
- Antti Aaltonen (2007) *Facilitating Personal Content Management in Smart Phones*
- Ko Besuijen (2008) *Image quality in context*
- Henriette van Vugt (2008) *Image Embodied agents from a user's perspective*

- Olga Kulyk (2009) *Do You Know What I Know? Situational Awareness of Co-located Teams in Multidisplay Environments*
  - F.Wim Fikkert (2010) *Gesture Interaction at a Distance*
  - Ingo Wassink (2010) *Work flows in life science*
  - Dhaval Vyas (2011) *Designing for awareness*
  - Aniel Bhyulai (2011) *Dynamic website optimization through autonomous management of design patterns*
- Currently he is supervising 5 Ph.D. students (at the Open Universiteit Heerlen and at the University of Twente).

### Research Domain:

Development of theory and methods, and experimental studies and field studies, on human learning, including mathematical learning models, and on cognitive styles and strategies (field-dependency, impulsivity, visualization/verbalization, serialism/holism), and spatial ability - all in relation to human-computer interaction. The development of mental models of computer systems and complex task situations is an important viewpoint in this research.

This research is applied in the domain of human-machine interaction or "Cognitive Ergonomics" and computer supported cooperative work ("CSCW") or Groupware. Theory, methods, formalisms, and tools have been developed which resulted in an integrated approach regarding:

- **design methods** resulting in the approach DUTCH (design for users and tasks from concepts to handles);
- **task analysis and interaction analysis** resulting in the method GTA (groupware task analysis);
- **design specification:** analysis and evaluation of the user-interface resulting in theory and specification language NUAN (New User Action Notation); a systematic approach towards analyzing users' knowledge, learning and the related design of training and documentation. In this respect the concepts of the user's mental model as well as distributed cognition in users' cultures are systematically investigated.

Currently, new technological challenges like embedded information technology and "intelligent" devices, groupware, multimedia and web applications ask for elaboration of a user centered design approach, as well as for systematic attention to the culture and context of use. From 2007, when the Dutch Open University became the only official employer supporting Research, this research is mainly applied to the domain of life-long learning. Currently, research mainly focusses on design for Cultural Heritage.

### Research grants:

In 1991 he initiated a inter-university project and received a grant from NOW/NFI for the project **Systematic design of user interfaces**, that enabled a total of 5 PhD projects at 5 Dutch Universities (TU Twente, TU Delft, KU Brabant, VWI, VU), as well as a total of 4 years of invited visiting scientists (NF82/62-312). He supervised one PhD student at the VU, and co-supervised one in Twente.

In 2000 he initiated a project funded by the Dutch Ministry of Economic Affairs, SENTER, IOP MMI (Innovative Research Program on Human-Machine Interaction): **The application of mental models research to envisioning design of systems for incidental use** (till May 1, 2004, IOP-MMI 99010; 1 postdoc for 4 years).

He initiated and managed another project funded by the Dutch Ministry of Economic Affairs, SENTER, IOP MMI (Innovative Research Program on Human-Machine Interaction), running from 2001-2005: **The analysis and modeling of business goals and business processes for task analysis and requirements engineering** (starting date September 1, 2001, IOP-MMI 99009; 1 postdoc for 4 years).

In 2004 started a project in collaboration with the faculty of Social Sciences, supported by VUBIS (VU Research Center for Business Information Sciences): **Designing the user experience of Web as receivers of mass communication** (Starting April 1, 2004; 1 PhD student for 4 years).

In 2004 he received a grant from the Da Vinci Institute, center for science communication VU, for a 3 year research project at 20.000 Euro / year for the project, on the **Design of web-based support for science communication**

In 2005 he received a grant from the Netherlands BioInformatics Center (NBIC), program BioRange, for a PhD student on the topic of **User Interfaces for Scientific Collaboration** aiming at task analysis and task design in the domain of bioinformatics science communication. This research started in October 2005.

In 2007 two research grants from SENTER IOP MMI were received for OU projects on: **Creative Design of Interactive Systems - Experience as focus**; and **Design Patterns adjusted for non-HCI professionals**

### **Volunteer leadership:**

Gerrit took part in the organization of Dutch conferences (1985-NGI, 1986-Dutch Psychonomic Society, 1990-NGI), and organized several international conferences in this field in the series "European Conferences on Cognitive Ergonomics" (ECCE: 1982-Amsterdam, 1984-Gmunden, 1986-Paris, 1990-Urbino, 1992-Budapest/Balatonfured). He was one of the founders, and for 6 years the secretary, of the European Association of Cognitive Ergonomics (an interdisciplinary organization of researchers in this field). For this organization was recently conference chair for CSAPC03 (cognitive science approaches to process control), and in 2007 he was elected President (for 3 years).

He was a member of program-committees or organizing committees of conferences in this field:

- INTERACT-90, -95, and 2003 in Cambridge, Lillehammer, Zurich; IFIP
- International Conference on Human Factors in Information Systems Analysis and Design, annually in Schaerding (Austria), since 1981;
- ACM CHI-91 New Orleans, CHI-94 Boston, CHI-95, Denver, CHI-2000 in The Hague, CHI 2003 Fort Lauderdale, CHI 2004 Vienna;
- DIS-2000 in New York, ECSCW'93 Milan, and VCHCI'93 Vienna.

He was co-chair of INTERCHI'93 Amsterdam (A combination of CHI-93 and INTERACT-93) and technical program co-chair for ACM-CHI 96 (Vancouver). He was Development Consortium co-chair for CHI 97 and CMC-liaison as well as Development Consortium co-chair for CHI 98 and CHI 2004. He was technical program co-chair for DIS'97 and member of the international conference committee for INTERACT-97 in Australia. He was General Conference Chair for "Measuring Behavior 4" in Amsterdam, 2002. He was Development Consortium co-chair for CHI 2004 and conference chair for CHI 2005, Boston (1900 participants).

In 1993, 1996, 1997, and 1999, 2004, 2005, and 2008 he received the Recognition of Service award from ACM and in 2000 the distinguished service award. In 1998 he was awarded the IFIP Silver Core. In 2007 he was awarded "Officer in the Royal Dutch Order of Oranje Nassau" for his civil volunteering work. In 2007 the Dutch local ACM chapter CHI-Netherlands (500 members) installed an annual "Gerrit van der Veer Price" for best MSc Thesis in Human-Computer Interaction.

From 1989-1999 he was a member and later chair of the ACM SIGCHI Conference Management Committee, from 1997-1999 he was SIGCHI Vice Chair for Conference Planning, and from 1999-2001 he was member of the advisory board of ACM SIGCHI (5000 members). Since 2004 he is again a member of the ACM SIGCHI

Conference Management Committee. From July 2007 - July 2009 he was ACM SIGCHI Vice President for Conferences. From July 2009 – July 2015 he was elected ACM SIGCHI President. Currently he is SIGCHI immediate Past President, Member of ACM Educational Council, and ACM representative at the IFIP General Assembly.

From 1989-2015 he was the Dutch representative in IFIP TC 13 on Human-Computer Interaction. From 2003 - 2005 he was vice chair of TC13. Since 2015 he is ACM representative in IFIP TC 13.

### **European project:**

He was Senior Scientist in the European Science Foundation research program "learning in humans and machines" (1994-1997). He was Coordinator of the COST 11bis and COST 11ter working groups "Human factors in Telematics" and of the COST-14 working group IMPACT (Interdisciplinary applications and design for cooperation technology) (international, interdisciplinary consortia of research institutes, sponsored by the Commission of the European Communities, running from 1983-1995). He was Coordinator of Tempus project ROCOCO (4 Rumanian University departments of Computer Science, and 4 Western European departments), running from 1995-1998.

### **Dutch Projects:**

He was a member of the Dutch norm commission on software ergonomics of the Dutch Normalization Institute. He was one of the initiators of HCI activities in the Netherlands. He was a founder, and for many years a member of the Executive Committee, of the Working group Man-Computer Interaction of the Dutch Computer Society and Dutch Ergonomic Society. After this working group became an ACM SIGCHI local SIG he was the first chairman of the ACM local SIGCHI.NL group (500 members). He was member "programmacommissie IOP MMI" (Men-Machine Interaction) SENTER, Ministerie van Economische Zaken (Ministry of Economic Affairs). Till 2015 he was member of the Scientific Advisory Committee of the Dutch Research School for Information and Knowledge Systems SIKS, leading the SIKS Focus on Human-Computer Interaction.

### **Editorial boards:**

- Member of the editorial board of "Tijdschrift voor Ergonomie" (Dutch Ergonomics Journal) till 2014;
- Member of the Human-Computer Interaction Series, Kluwer Academic Publishers, recently Springer;
- Associate Editor of the "International Journal of Human-Computer Studies" (Academic Press) till 2004;

### **d. Publications**

He is first editor of 10 books on cognitive ergonomics, human-computer interaction, and computer science education, and author of over 200 conference and journal papers on individual differences between computer users, computer application in learning and teaching, mental models of complex systems, teaching applications systems and computer languages, task analysis and task modeling, experience design, user interface design patterns, user interface design, service design, and interaction design for cultural heritage.