Prof. Dr. Beat Signer

PERSONAL DETAILS

Surname	Signer
First Name	Beat
Nationality	Swiss
Web	beatsigner.com
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ORCID	0000-0001-9916-0837

MAILING ADDRESS

Vrije Universiteit Brussel
Department of Computer Science
Pleinlaan 2
1050 Brussels
Belgium

ACADEMIC QUALIFICATIONS

August 2005
Dr. sc. techn. ETH Zurich (PhD), Computer Science
October 1999
Dipl. Inf. Ing. ETH (equivalent to an MSc)
minor in **Business Administration**

EMPLOYMENT

February 2009 – present
Professor (tenure since 1.1.2012)
Department of Computer Science, Vrije Universiteit Brussel
October 2007 – January 2009
Senior Researcher
Institute of Information Systems, ETH Zurich
September 2005 – September 2007
Postdoctoral Researcher
Institute of Information Systems, ETH Zurich
October 1999 – August 2005
Research and Teaching Assistant
Institute of Information Systems, ETH Zurich
November 1996 – March 1997
Industry placement, software engineering for real-time systems
Oerlikon Contraves, Zurich, Switzerland
August 1993 – October 1993
PC software/hardware installations and support
Teleprint tdc SA, Baden-Dättwil, Switzerland

LANGUAGES

German (mother tongue), **English** (CEFR C1 certificate),
Dutch (NT2 Effectiveness 1 certificate), **French** (intermediate), **Italian** (basic)

REFEREES

Prof. em. Dr. Moira C. Norrie
Institute of Information Systems, ETH Zurich, Switzerland
Prof. Dr. Jean Vanderdonckt
Louvain Interaction Laboratory (LILab), Université catholique de Louvain, Belgium
Prof. Dr. Paul Luff
Interaction and Technology Research Group, King's College London, UK
Prof. Dr. Andreas Dengel
German Research Center for Artificial Intelligence (DFKI), Kaiserslautern, Germany
Prof. Dr. Morten Fjeld
t2i Lab, Chalmers University of Technology, Gothenburg, Sweden
Prof. Dr. Abigail Sellen
Socio-Digital Systems Group, Microsoft Research, Cambridge, UK
Prof. Dr. Axel Vogelsang
Lucerne University of Applied Sciences and Arts, Switzerland
Prof. Dr. Brygg Ullmer
Human-Centered Computing Division, LSU, Clemson University, USA
Prof. Dr. Christian Heath
Interaction and Technology Research Group, King's College London, UK

RESEARCH INTERESTS

Cross-Media Technology, Human-Information Interaction, Information Science, Information Visualisation and Data Physicalisation, Personal Information Management, Technology-enhanced Learning, Interactive Paper and Augmented Reality, Tangible Interaction, Document Engineering

FUNDED PROJECTS

October 2022 – September 2027 (*PI*)
Real-Time Cross-Media Data Exploration and Analysis for Next Generation Knowledge Workers
Financing: Strategic Research Programme Growth Funding (SRP 92)
September 2022 – August 2026 (*co-coordinator*)
Strategic International Partnership University of the Western Cape, South Africa
Financing: VUB
January 2021 – December 2024 (*PI*)
A Design Toolkit for Knowledge Physicalisation and Augmentation
Financing: VLAIO Baekeland Mandate (Isaac Valadez)
October 2020 – September 2024 (*Supervisor*)
May AI Help You? Human-AI Interaction in End-User User Interface Development
Financing: FWO Junior Postdoctoral Fellowship (Dr. Audrey Sanctorum)
February 2020 – April 2020 (*Administrative PI*)
Francqui Chair VUB 2019/2020, chair holder: Prof. Dr. Jean Vanderdonckt
Financing: Francqui Foundation
April 2018 (*PI*)
Next Generation User Interfaces
Financing: VUB OVP-WE 2018
January 2017 – December 2017 (Co-*PI*)
Interdisciplinary Student Projects in Data Journalism in Collaboration with Media Partners
Financing: Fonds Onderwijsvernieuwingsprojecten (OVP) 2016

March 2017 – April 2017 (*PI*)

Connect

Financing: Innoviris

August 2016 (*PI*)

Next Generation User Interfaces

Financing: VUB OVP-WE 2016

January 2016 – December 2019 (*Supervisor*)

Towards User-defined Cross-Device and Cross-Media Interaction

Financing: FWO PhD Scholarship (Audrey Sanctorum)

January 2016 – December 2020 (Co-*PI*)

TICKLE: Adaptive Persuasive ICT Tools to Tackle School Burnout Among Youngsters in Brussels

Financing: ICITY-RDI.BRU
(European Regional Development Funds programme 2014 – 2020)

January 2015 – December 2018 (*Supervisor*)

Towards a Unified Framework for Personal Cross-Media Information Management

Financing: IWT PhD Scholarship (Sandra Trullemans)

January 2013 – May 2014 (*Supervisor*)

Towards Context-aware Implicit Multimodal Human-Computer Interaction

Financing: IWT PhD Scholarship (Brecht De Rooms)

October 2012 – September 2016 (*Supervisor*)

A Dynamically Extensible Open Cross-Document Link Service

Financing: VUB-OZR PhD Scholarship (Ahmed A.O. Tayeh)

January 2012 – November 2015 (*Co-PI*)

New Possibilities for Print Media and Packaging - Combining Print with Digital

Financing: EU FPS COST Action FP1104

August 2012 (*PI*)

Next Generation User Interfaces

Financing: VUB-Onderwijsfonds

February 2011 – January 2014 (*Co-PI*)

MobiCraNT - Second Generation Mobile Cross-Media Applications: Scalability, Heterogeneity and Legacy

Financing: Innoviris ICT Impulse Programme 2010

January 2011 – December 2014 (*Supervisor*)

Software Engineering Technologies for Applications with Multimodal Interaction

Financing: IWT PhD Scholarship (Lode Hoste)

January 2011 – December 2014 (*Co-PI*)

Toward Cognitive Adaptive Edu-games

Financing: VUB-OZR Horizontal Activity (HOA)

January 2009 – now

iRead

Initiative to improve teaching aids (e.g. interactive paper) for rural areas of India in collaboration with the bj institute (Bruno Jehle)

October 2007 – September 2009 (*Work Package Leader*)

Query by Sketching (QbS)

SNF Project, Project Partners: University of Basel, ETH Zurich

April 2005 – March 2008 (*Work Package Leader*)

PaperWorks: Interweaving Paper and Digital Documents

EU STREP (FP6-516895), Project Partners: King's College London, ETH Zurich, University of Brunel, University of Malmo, Anoto, Acreo, Arjowiggins, Pearson

April 22, 2005 – May 8, 2005 (*Project Leader*)

Generosa Enterprise

Interactive Paper Installation for the 150 Years ETH Jubilee

January 2004 – January 2007

DELOS: Network of Excellence on Digital Libraries

EU Project (FP6)

July 2005 – December 2005 (*Project Leader*)

Artists in Labs (AIL) Programme

6 months collaboration with an artist in residency

January 2001 – July 2004 (*Work Package Leader*)

Paper++

EU Project (IST-2000-26130), Project Partners: King's College London, ETH Zurich, Anitra Medienprojekte GmbH, Arjowiggins, Hewlett-Packard

TEACHING

Course Lectures

- *Human-Computer Interaction* (1023841ANR) (3 ECTS)
  2022–now
- *Advanced Topics in Big Data* (4023256FNR) (6 ETCS)
  2022–now
- *Information Visualisation* (4019538FNR) (6 ECTS)
  2020–now
- *Web Technologies* (1019888BNR) (6 ETCS)
  2015–now
- *Next Generation User Interfaces* (4018166FNR) (6 ETCS)
  2014–now
- *Advanced Topics in Information Systems* (4016792ENR) (6 ETCS)
  2011–2021
- *Introduction to Databases* (1007156ANR) (6 ETCS)
  2010–2019
- *Databases* (4018173ENR) (6 ETCS)
  2010–2019
- *Web Information Systems* (4011474FNR) (6 ETCS)
  2009–2015
- *Seminar Web Information Systems Technology* (WE-DINF-12688) (6 ETCS)
  2009–2010
- *Information Systems (Advanced Course)*
  2007–2008 (led by Prof. Dr. Moira C. Norrie)
- *Object-Oriented Technologies for Data Management*
  2000, 2003 (led by Prof. Dr. Moira C. Norrie)

Seminar Organisation and Supervision

- *Advanced Topics in Information Systems*
  2005–2006, 2008
- *Computer Supported Cooperative Work*
  2006–2008

Industry Courses

- *Web Search and Future Trends on the Web* (6 hours), Stibbe, Brussel, March 2015
- *Web Search* (6 hours), Stibbe, Brussel, September 2011
- *XML Solutions*, March 24/25, 2003
- *XML Data Modelling, Information Exchange and Universal Access*, July 8/9, 2002
- *XML Solutions*, March 25/26, 2002
- *XML Solutions*, March 26/27, 2001
- *Web Information Systems*, October 9/10, 2000

Course Tutor

- *Information Systems (Advanced Course)*
  2003–2004
- *Information Systems (Basic Course)*
  2000–2003
- *Object-Oriented Technologies for Data Management*,
  1999–2001
- *Informatics III*
  2000–2001

SUPERVISION

PhD Students

- Ingela Rossing, *Real-Time Cross-Media Data Exploration and Analysis for Next Generation Knowledge Workers*, February 2023 – now
- Yoshi Malaise, *Personal Knowledge Graph-based Assessment, Content Generation and Recommendation for Computing Education*, December 2021 – now
- Isaac Valadez, *A Design Toolkit for Knowledge Physicalisation and Augmentation*, June 2021 – now
- Piet Van Der Paelt, *Information System Architecture for the Julia-based Interoperable Framework for Simulation and Optimisation*, joint PhD with the Royal Military Academy (RMA), April 2021 – now
- Xuyao Zhang, *A Modular Data Physicalisation Platform for Innovative Forms of High-dimensional Data Analysis*, December 2020 – now
- Ekene Attoh, *Towards a Middleware for Context-aware Implicit Human-Computer Interaction Across IoT Platforms*, January 2020 – now
- Maxim Van de Wynckel, *Hybrid Positioning and Implicit Human-Computer Interaction*, October 2019 – now
- Dr. Renny Lindberg, *Design Recommendations for Social Engagement Platforms: Towards Enhanced Accessibility for Elderly Users and Long-Term Engagement*, October 2019 – July 2022
- Payam Ebrahimi, *A Framework for Hybrid Real-Time Point Cloud Analysis*, July 2017 – April 2022
- Dr. Jan Maushagen, *Mobile Playful Learning Environments: Conceptual Foundations for Informal Learning Environments in the Digital Age*, October 2016 – August 2021
- Dr. Audrey Sanctorum, *eSPACE: Conceptual Foundations for End-User Authoring of Cross-Device and IoT Applications*, October 2015 – July 2020
- Dr. Reinout Roels, *MindXpres: Conceptual and Technical Foundations for Next Generation Presentation Solutions*, October 2012 – May 2019
- Lars Van Holsbeeke, *Towards a Middleware for Context-aware Implicit Human-Computer Interaction Across Smart Environments*, October 2016 – September 2018
- Dr. Sandra Trullemans, *Enabling and Informing the Design of Cross-Media Personal Information Management Solutions*, September 2013 – February 2018
- Cristian Vasquez Paulus, *Social Emergent Semantics for Personal Data Management*, January 2014 – May 2017
- Dr. Ahmed A.O. Tayeh, *A Dynamically Extensible Cross-Document Link Service*, October 2012 – October 2016
- Brecht De Rooms, *Towards Context-aware Implicit Multimodal Human-Computer Interaction*, January 2013 – May 2014
- Dr. Lode Hoste, *A Declarative Approach for Engineering Multimodal Interaction*, 2011–2015
- Dr. Adriana Ispas, *Investigations on the Benefits of Using Digital Pen and Paper Technologies in Meetings*, Diss. ETH No. 20157, 2011 (co-supervision with Prof. Dr. Moira C. Norrie)
- Dr. Nadir Weibel, *A Publishing Infrastructure for Interactive Paper Documents*, Diss ETH No. 18514, 2009 (co-supervision with Prof. Dr. Moira C. Norrie)

Postdoc Students

- Dr. Audrey Sanctorum, *May AI Help You? Human-AI Interaction in End-User Interface Development*, October 2020 – now
- Dr. Reinout Roels, *MindXpres and Next Generation Presentation Solutions*, June 2019 – December 2021
- Dr. Ahmed A.O. Tayeh, *Cross-Document Link Services*, November 2016 – March 2022

- Dr. Sandra Trullemans, *Cross-Media Personal Information Management*, March 2018 – September 2019
- Dr. Bruno Dumas, *Second Generation Mobile Cross-Media Applications: Scalability, Heterogeneity and Legacy (MobiCraNT)*, February 2011 – January 2014

Researchers

- Evan Cole, *Technology-enhanced Learning, Study Lenses*, April 2022 – now
- Arun Sojan, *Dynamic Data Physicalisation for Digital Twins*, June 2021 – now

Bachelor's Theses

- Zoë Bellers, *Using Augmented Reality for Enhanced Learning in Chemistry Education*, 2024
- Jonathin Witters, *IoT Data Visualisation: A Creative Approach*, 2024
- Bilal Laaroussi El Alami, *AR Photo Album*, 2024
- Rob Leemans, *Advanced Information Visualisation for Educational Settings*, 2024
- Silken Heynderickx, *Using Minecraft as a Visualisation Tool for Teaching Computer Science*, 2024
- Jordan Shittu, *LiDAR Indoor Map Matching for Autonomous Robots*, 2024
- Stoffel Oostvogels, *End-User Authoring for Location-based Implicit Human-Computer Interaction*, 2023
- Nathan Hoebeke, *Location Tracking on a Physical Game Board*, 2023
- Kevin Sam, *Distributable Adaptive User Interfaces*, 2022
- Aaron Bogaert, *Creating the Future: Using Existing Frameworks and Tools to Create a Hypermedia-enabled File System*, 2022
- Taha El Hihi, *Real-time Localization and Visualization of a Sound Source*, 2022
- Nathan Pesch, *Visualising Climate Change Data Using Virtual Reality*, 2022
- Ahmed Barhdadi, *Wi-Fi Signal Fingerprinting: Signal Visualisation and Crowdsourcing*, 2021
- Mathieu Louis, *Helping End Users Become Better UI Designer*, 2021
- Arthur Chomé, *A Framework for Mixed Reality*, 2019
- Thomas Lieven Vaeyens, *Immersive Mixed Reality Experience for an Educational Context*, 2019
- Antoine Maxime, *MRPaint: A Mixed Reality Competitive Game*, 2019
- Brent Willems, *Museum of the Future: Towards a Mixed Reality Information Explorer*, 2018
- Lander Demesmaeker, *Designing Customisable User Interface Distribution*, 2018
- Mateusz Blommaert, *Context Rule Conflict Detection between Multiple Users and Environments*, 2017
- Linda de Corte, *Context-aware Media Adaptation for Information Displays*, 2017
- Kwinten Pardon, *Improving Our Love/Hate Relationship with Email*, 2016
- Tom Stricks, *Advanced Linking and Annotations for Office Documents*, 2015
- Arno De Witte, *Tracking My Documents*, 2015
- Ayrton Vercruysse, *A Rapid Prototyping Framework for Identifying and Tracking Paper Documents on Desks*, 2014
- Kevin Van Gyseghem, *Exploring Graph-based Visualisations for the MindXpres Presentation Tool*, 2013
- Ruben Tytgat, *A Declarative Scale-, Rotation- and Position-invariant 3D Gesture Algorithm*, 2013
- Audrey Sanctorum, *Scratching the Surface*, 2013
- Toon Duwee, *Expressive Control of Augmented Reality During Live Music Performances*, 2012
- Toon Teugels, *Extracting Context Information from Sensors*, 2012
- Bram Moerman, *Exploring Information Through Advanced Visualisation Techniques*, 2012

- Rik Vanmechelen, *iGesture: Implementation and Evaluation of Advanced Gesture Detection Algorithms*, 2011
- Brecht Van Laethem, *Paper-Digital Maps*, 2011
- Jeroen Heymans, *Pen and Paper-based Object Database Interface*, 2011
- Arthur Vogels, *iGesture Extension for 3D Input Devices*, November 2008
- Hermann Hofstetter, *Remote Sketching on Paper*, August 2007
- Gianni Frey, *iFlash: A Flash Plug-in for iServer*, April 2006
- Samuel Willimann, *Active Component Authoring Tool*, October 2005
- Ueli Kurmann, *Interactive Paper Laboratory Notebooks*, April 2005
- Stefan Naegeli, *Eclipse Plug-in for Jawin*, April 2005
- Thomas Bruderer, *Paper-based Cross-Media Authoring*, April 2005
- Stefan Malär, *Advanced XHTML Plug-in for iServer*, April 2005
- Sandra Brockmann, *Navigation Facilities for Paper-Based Tourist Information System for the Edinburgh Festivals*, April 2005
- David Mysicka, *Link Browser for the Integration Server Architecture (iServer)*, October 2004
- Nina Laschet, *Cross-Media Authoring Tool*, October 2004
- Alexandre de Spindler, *Bayesian Network for Prefetching Caches*, August 2004
- Philipp Bolliger, *Active Components for iServer - In Consideration of Paper-based Authoring*, April 2004
- Fabio Lanfranchi, *QuickTime Movie Plug-in for the Integration Server Architecture (iServer)*, August 2003
- Andreas Diener, *Authoring Tool for Digitally Augmented Paper*, October 2002
- Michael Stahl, *Java HID-USB API for Windows*, October 2002
- Daniel Heiniger and Peter Geissbuehler, *Voice-Based User Interface for the eXtensible Information Management Architecture (XIMA)*, April 2001
- Claudia Saupper, *E-Mail Application based on OMS Java*, April 2001
- Markus Haller, *XML Export for OMS*, April 2001
- Gaudenz Alder, *JGraph - A Swing Component for Visualising Graphs*, December 2000
- Raphael Huber, *A Slim and Open Data Model for Public Transport Network Using OMS*, November 2000

Master's Theses

- Lysa Roxana Kwizera, *Designing for Collaboration: A Cooperative Knowledge Base for the Physicalisation Community*, 2024
- Faroukh Davouzov, *Designing Interactions Between Tangibles*, 2024
- Mishkat Haider Chowdhury, *Looking at Code Through a Different Lens*, 2024
- Abhinav Sidharthan, *From Digital to AR: Developing an Augmented Reality Board*, 2024
- Bilal Laaroussi El Alami, *Next Generation Personal Information Management*, 2024
- Milan Ilic, *Extensible Dynamic Data Physicalisation Platform*, 2024
- Mouzzam Tahir, *Mobile-based Pedagogical Approaches for Programming Concepts*, 2024
- Dana Tabatabaie Irani, *Investigating Methods for Providing Device Discovery and Integration in Internet of Things Settings for End Users*, 2024
- Erdogan Abaci, *Helping End Users Designing Better UIs*, 2024
- Yishen Yu, *Mixed Reality-based Interaction with the Internet of Things*, 2024
- Ameer Hamza, *Using a Component-based Approach to Facilitate the Development of Internet of Things Environments*, 2024
- Inas Ghailani, *Gamification in Education for Socially Vulnerable Groups*, 2024
- Stefan-Calin Crainiciuc, *Defining Abstract Narrative Graphs to Understand and Explain Code Bases*, 2024
- Mark Stevic, *Using Tangibles to Support Serious Gaming in a Reception Centre for Unaccompanied Minors*, 2024

- Brent Willems, *Next Generation File System*, 2024
- Ahmed Barhdadi, *Heuristic Real-time Trajectory Prediction Using Spatio-temporal Databases*, 2023
- Hanne Sips, *Interactive Music Visualisations With p5.js and Reactive Programming*, 2023
- Aubin Crispy Feupissie Wanche, *SphereBurst: A Novel Approach for Data Physicalisation on a Sphere*, 2023
- Brenda Ordoñez Lujan, *Enabling the Generation of User Interfaces for Personalised IoT Applications for Non-Designers*, 2023
- Bram Dewit, *Integration of User-defined Gesture Interaction Into End-User Authoring Tools*, 2023
- Anisha Sachdeva, *Inbox Harmony: A Recommendation System to Manage and Organise Emails Based on PIM Principles*, 2023
- Benjamin Vermunicht, *Identifying Devices Based on MAC Layer Properties*, 2023
- Hammad Ali, *Helping End Users Design Better UIs*, 2022
- Artyom Kuznetsov, *Towards Intelligibility in Multi-User IoT Environments*, 2022
- Song Mengyao, *Investigating Algorithms for Helping End Users Create Better User Interface Designs*, 2022
- Stijn Desloovere, *AR Concept Maps: Combining Augmented Reality and Tangibles to Elevate Standard 2D Concept Maps*, 2022
- Himanshi Saxena, *Enhancing Learning Experience with Augmented Mind Maps*, 2022
- Reihaneh Kalhor, *Investigation of a Grammar and Framework for New Forms of Data Exploration via Dynamic Data Physicalisation*, 2022
- Gregory Beankens, *An Innovative Video and Photo Messaging Solution: Design of a Lightful Unmanned Mobile Device*, 2021
- Claudia Vaquera, *Office of the Future: The Use of Augmented Reality in Personal Information Management*, 2021
- Jeroen Grégoire, *Design Guidelines for IoT Systems in Smart Companies*, 2021
- Oguz Gelal, *Intertext: Towards a Secure and Platform Agnostic Front-end Ecosystem*, 2021
- Yoshi Malaise, *iSport: Towards a Smart Trainer Assistant*, 2021
- Elena Zambon, *Mixed Reality-based Interaction for the Web of Things*, 2021
- Yassine Bouagaz, *Anonymous Contact Tracing Fusion*, 2021
- Ronald Michiels, *Indoor Positioning by Visible Light Communication*, 2021
- Ben Bergs, *Comparison of SLAM Solutions with Exclusive Usage of LIDAR Observation Data*, 2021
- Ghassan Saliby, *Dynamic Data Physicalisation for Geo-tagged Data Exploration*, 2020
- Mohamed Arbaoui, *Using Augmented Reality for City Awareness*, 2020
- Xuyao Zhang, *Phixel: An Interactive Physical User Interface for Exploring Datasets*, 2020
- Maxime Libert, *Using Augmented Reality to Control Device Interaction in a Web of Things Environment*, 2020
- Alexandre Jacobs, *An Augmented Reality Museum Guide*, 2020
- Eleni Ilkou, *EduKnow: A Framework for Structuring Educational Material – Mathematics as a Use Case*, 2019
- Yevhen Dukhno, *A Middleware for Smart Interactions Across Internet of Things Platforms*, 2018
- Satyam Kapoor, *Metaphors for the End-User Authoring of Web of Things and Cross-Device Applications*, 2018
- Rencong Tang, *A Mixed Reality Solution for Indoor Navigation*, 2018
- Ahmed Kareem A. Abdullah, *Towards Investigating the Design Space of Data Physicalisation*, 2018

- Tim Leenaers, *Mashup Tool for Distributed Physical-Digital User Interfaces*, 2018
- Kwinten Pardon, *An Extensible Presentation Framework for Real-time Data Acquisition, Interaction and Augmented Reality Visualisations*, 2018
- David Cino, *Opportunities for Distributed Physical-Digital User Interfaces*, 2018
- Kevin Van Ryckegem, *A Framework for the Rapid Prototyping of Cross-Device Interaction*, 2018
- Timothy Curtin, *TangHo: A Tangible Hologram Platform for Exploring Interactions with Data Through Mobile Simulated Data Physicalisation*, 2017
- Tom De Rycke, *CrossWow: Towards Rapid Prototyping of Cross-Device Interaction*, 2017
- Nicolas Carraggi, *Making Wearables Fit the User: A Trigger-Action Programming Approach to Configure Wearables*, 2017
- Joeri Boonen, *CastJS: A Web-based Context-aware Ambient Media Player System*, 2017
- Kushal Soni, *An Extensible Virtual Assistant for the PowerPoint Presentation Tool*, 2017
- Arno De Witte, *A User-friendly and Device-independent Interface for Cross-Device Information Exchange*, 2017
- Jeroen Nyckees, *Distributed Multi-Touch User Interfaces for Modular Musical Expression*, 2017
- Jan Maushaegen, *TagVis: A Visualisation of Relationships Between Tags*, 2016
- Lars Van Holsbeeke, *Rule Sharing for the Context Modelling Toolkits*, 2016
- Tim Witters, *PoPa: Policy-based Payment Hubs for Digital Payments*, 2016
- Vetrivel Dhanyamithra, *An Exploration of File Explorer Adaptation for Document Refinding*, 2016
- Jonas Vereycken, *Investigating Graph-based Storage Backends for Hypermedia Link Services*, 2016
- Mohammed Zahir, *An Extensible Platform for Real-Time Feedback in Presentation Training*, 2016
- David Sverdlov, *Enriching the XLink Standard with RSL Metamodel Features*, 2016
- Chunxiang Yan, *TabletPoint: A Pen and Tablet-based Presentation Solution*, 2016
- Joachim Michiels, *Towards Advanced Task Management*, 2016
- Marius Hirjanu, *An Ambient Information System for Smart Lab Environments*, 2016
- Jasmien De Ridder, *End User Control of Dynamic Distributed User Interfaces*, 2015
- Tim Vereecken, *ADFIS: An Application Development Framework for Interactive Surfaces*, 2015
- Joris Vandermeersch, *Content Migration and Layout for the MindXpres Presentation Tool*, 2015
- Ayrton Vercruysse, *Big Brother is Watching Your Documents: A Framework to Manage Tracked Physical Data*, 2015
- Audrey Sanctorum, *Fluid Cross-Media and Cross-Device Interaction in the Office of the Future*, 2015
- Payam Ebrahimi, *Note4u: An Advanced Notetaking Solution in Synergy with Your Memory*, 2015
- David Bos, *Multimodal Interaction for the MindXpres Presentation Tool*, 2015
- Evgeni Ivakhnov, *May the Personal Information Manager be with You: A Ubiquitous Distributed PIM System*, 2015
- Yves Baeten, *Intuitive Information Visualisation for the MindXpres Presentation Tool*, 2015

- Tim Reynaert, *Re-finding Physical Documents: It is Like a Dream Come True*, 2015
- Ngoc Tran, *Enhanced Retrieval and Discovery of Desktop Documents*, 2015
- Toon Duwee, *AlinkTable: A Visualisation and Interaction Technique for Linked Personal Cross-Media Information Management Systems*, 2014
- Antonios Kafazis, *Tangible Exploration and Querying of Cross-Media Information Spaces*, 2014
- Trang Nguyen, *I Know What You Did with Your Documents: A Unified Tracking and Re-finding Framework*, 2014
- Jasper Debie, *Guided Data Visualisation for the MindXpres Presentation Tool*, 2014
- Serafeim Kourlos, *An Investigation of Adapting Document Structures*, 2014
- David Swalus, *Enhanced Visualisation of Web Links and Annotations*, 2014
- Paul Mestereaga, *Intelligent Source Code Visualisation for the MindXpres Presentation Tool*, 2014
- Barry D'Hoine, *Identification and Distribution of Cross-Media Entities in a Peer-to-Peer Environment*, 2014
- Jochen François, *Dynamic Content in Fluid Cross-Media Documents*, 2014
- Daniel Velasquez, *An Artwork Recommender System Based on User Profiles and Preferences*, 2014
- Sam Nielandt, *A Framework for Real-Time Emotion Recognition with an Online EEG-based BCI during Content Browsing*, 2014
- Wouter Mensels, *A Framework to Provide User Control in Context-aware Systems*, 2014
- Paul Babatunde Otuyalo, *Versioning in the Fluid Cross-Media Document Format*, 2014
- Ngole Sone Nsime, *Video-based Tracking of Physical Documents on a Desk*, 2014
- Roeland Matthijssens, *Fixing the Web – Combining Advanced Linking and Visualisation in HTML5 based on RSL*, 2013
- Sandra Trullemans, *Personal Cross-Media Information Management*, 2013 (***V.Ir.Br. Award 2012/2013***)
- Christophe Vermeylen, *Audience-driven Presentations Based on the MindXpres Presentation Tool*, 2013
- Jeroen Heymans, *A WYSIWYG Template Authoring Solution for the MindXpres Presentation Tool*, 2013
- Benjamin Peetermans, *Automated Gesture Candidates for Full-Body Gesture Recognition*, 2013
- Reinout Roels, *MindXpres: An Extensible Content-driven Cross-Media Presentation Tool*, 2012
- Wouter Van Rossem, *An Extensible Framework for Indoor Positioning on Mobile Devices*, 2012
- Ahmed A.O. Tayeh, *A Metamodel and Prototype for Fluid Cross-Media Document Formats*, 2012
- María Fernanda Solórzano, *Mobile Multimodal Interaction: An Investigation and Implementation of Context-dependent Adaptation*, 2012
- Luis Guillen Barja, *Co-located Collaborative Tabletop Interaction - An Evaluation and Extension of Design Guidelines*, 2012
- Brecht Van Laethem, *Recognition of Deictic and Iconic Gestures for Home Automation*, 2012
- Szabolcs Becze, *Map-based Interaction Using Digital Pen, Stylus and Touch Screen: A Comparative Evaluation of Usability and Performance*, 2012
- Sven De Kock, *The Next Generation of Input Devices - SpeeG version 2*, 2012
- Jorn De Baerdemaeker, *SpeeG: A Speech- and Gesture-based Text Input Device*, 2011

- Tom Antjon, *SynergE-Learning: A PaperPoint-based Lecture Capturing and Annotation Tool*, September 2011
- Johan Bas, *A 3D Gesture Recognition Extension for iGesture*, September 2011
- Gregory Cardone, *An RSL-based Associative Filesystem*, November 2010
- Björn Puype, *Extending the iGesture Framework with Multimodal Gesture Interaction Functionality*, October 2010 (***Baudouin Elleboudt Award 2011***)
- Katinka Kromwijk, *Conference Information System - Analysis, Design and Implementation*, September 2008
- Monica Frisoni, *Distributed Lookup Service for Interactive Paper Applications*, August 2007
- Ueli Kurmann, *iGesture: A General Gesture Recognition Framework*, September 2006
- Alexandre de Spindler, *Distributed Collaborative Information Environment based on iServer*, January 2005
- Carlo Quirici, *Study into Potential Use of Digital Pen and Paper Technology at the SNF*, October 2004
- Christian Heinzer, *Distributed iServer Architecture Based on Peer-to-Peer Concepts*, October 2003
- Michael Stahl, jUSB: *Java USB API for Windows*, May 2003
- Simon Schulé, *XHTML Plug-in for the Integration Server Architecture (iServer)*, October 2003
- Corsin Decurtins, *Visualisation of Tours and Trails*, November 2001
- Peter Geissbuehler, *Providing a Telephone Avalanche Warning Service using XIMA and VoiceXML*, October 2001
- Daniel Heiniger, *Providing a Telephone Avalanche Warning Service using XIMA and WML*, October 2001
- Raphael Huber, *GOMS: A Geographical Object Management System*, April 2001
- Michael Grossniklaus, *CMServer: An Object-Oriented Framework for Website Development and Content Management*, November 2000
- Matthias Kistler, *WAP Interface for OMS Java based on an XML Server Component*, April 2000
- Michael Gut, *Framework for Web Information Systems based on OMS and Java Servlets*, November 1999

Scientific Visitors

- Migdeily Cantera, *Towards User-defined Implicit Human-Computer Interaction for Smart Environments*, VLIR scholarship, October–December 2021

Internships

- Hercule Kalonji Kalala, *A Review of Kinect-based User Interfaces*, VLIR scholarship, October–November 2012

Tutorial Assistants

- Claudio Hatz, *iPaper Tools*, December 2007
- Michele Croci, *iGesture Recognition Framework*, October 2007
- Matthias Geel, *Interactive Tabletop*, September 2007
- Ueli Kurmann, *iGesture Recognition Framework*, January 2007
- Gianni Frey, *iFlash Plug-in for iServer*, November 2006

PROFESSIONAL ACTIVITIES

Departmental/Faculty Roles

- Programme Director of the Master of Computer Science and Master of Science in Applied Informatics at the Vrije Universiteit Brussel, September 2021–now
- Faculty Representative in the International Policy Council (RIB) at the Vrije Universiteit Brussel, 2015–now
- Member of the Faculty Commission for Internationalisation (FACIR) at the Vrije Universiteit Brussel, 2013–now
- Member of the Faculty Teaching Commission (OWC) at the Vrije Universiteit Brussel, October 2011 – January 2014, September 2021–now
- Exchange Coordinator of the Department of Computer Science at the Vrije Universiteit Brussel, September 2009–now
- Deputy Member of the Faculty of Sciences and Bioengineering Sciences Council at the Vrije Universiteit Brussel, 2023–now
- Member of the Department of Computer Science Council at the Vrije Universiteit Brussel, 2009–now
- Member of the University Council for the Bachelor of Computer Science at the Vrije Universiteit Brussel, January 2013–now
- Member of the University Council for the Bachelor in Artificial Intelligence at the Vrije Universiteit Brussel, September 2022–now
- Member of the University Council for the Master of Computer Science and Master of Science in Applied Informatics at the Vrije Universiteit Brussel, January 2013–now
- Member of the Exam Commission for the Master of Computer Science at the Vrije Universiteit Brussel, September 2011–now
- Member of the Exam Commission for the Master of Science in Applied Informatics at the Vrije Universiteit Brussel, 2013–2016, 2020–now
- Member of the Faculty of Sciences and Bioengineering Sciences Council at the Vrije Universiteit Brussel, 2009–2023
- Member of the Exam Commission for the Bachelor in Computer Science at the Vrije Universiteit Brussel, September 2011 – September 2021
- Member of the University Council for the Master of Applied Computer Science (MACS) at the Vrije Universiteit Brussel, January 2013 – January 2022
- Chair of the Faculty Commission for Internationalisation (FACIR) at the Vrije Universiteit Brussel, September 2015 – September 2019
- Member of the Dean's office at the Vrije Universiteit Brussel, September 2015 – September 2019
- Chair of the Exam Commission for the Bachelor in Computer Science at the Vrije Universiteit Brussel, January 2015 – September 2018
- Secretary of the Exam Commission for the Bachelor in Computer Science at the Vrije Universiteit Brussel, January 2013–2015
- Secretary of the Exam Commission for the Department of Computer Science at the Vrije Universiteit Brussel, September 2011–2013

Selection Committees

- Professor of Computer Science (1.0 FTE), Artificial Intelligence Lab, Vrije Universiteit Brussel, Belgium, 2024
- Professor of Computer Science (1.0 FTE), Software Languages Lab, Vrije Universiteit Brussel, Belgium, 2023
- Professor of Computer Science (1.0 FTE), Artificial Intelligence Lab, Vrije Universiteit Brussel, Belgium, 2022
- Professor of Computer Science (1.0 FTE), Software Languages Lab, Vrije Universiteit Brussel, Belgium, 2022
- Professor of Computer Science (1.0 FTE), Software Languages Lab, Vrije Universiteit Brussel, Belgium, 2021

- Professor of Computer Science (1.0 FTE), Artificial Intelligence Lab, Vrije Universiteit Brussel, Belgium, 2021
- Professor of Computer Science (1.0 FTE), Department of Computer Science, Vrije Universiteit Brussel, Belgium, 2019
- Professor of Computer Science (0.1 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2018
- Professor of Computer Science (1.0 FTE), Software Languages Lab, Vrije Universiteit Brussel, Belgium, 2018
- Professor of Computer Science (1.0 FTE), Human-Computer Interaction Group, Hasselt University, Belgium 2017
- Professor of Computer Science (0.2 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2016
- Professor of Computer Science (1.0 FTE), Software Languages Lab, Vrije Universiteit Brussel, Belgium, 2015
- Professor of Computer Science (1.0 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2015
- Professor of Computer Science (0.2 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2014
- Professor of Computer Science (0.2 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2014
- Professor of Computer Science (1.0 FTE), Software Languages Lab, Vrije Universiteit Brussel, Belgium, 2014
- Professor of Computer Science (1.0 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2013
- Professor of Computer Science (0.5 FTE), Software Languages Lab, Vrije Universiteit Brussel, Belgium, 2013
- Professor of Computer Science (1.0 FTE), Software Languages Lab, Vrije Universiteit Brussel, Belgium, 2012
- Professor of Computer Science (0.2 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2012
- Professor of Computer Science (0.1 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2012
- Professor of Computer Science (0.1 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2012
- Professor of Computer Science (0.1 FTE), Web & Information Systems Engineering Lab, Vrije Universiteit Brussel, Belgium, 2012

PhD Juries

- Bram Van Deurzen, *Robotic Graphics*, Hasselt University, Belgium
- Edna Chelangat Milgo, *Comparison of MCMC Adaptation Schemes*, Vrije Universiteit Brussel, Brussels, Belgium, January 2024
- Nixon Kipkorir Ronoh, *Natural Gradient-based Adaptive Markov Chain Monte Carlo*, Vrije Universiteit Brussel, Brussels, Belgium, January 2024
- Lara Verheyen, *Procedural Semantics for Human-like Language Understanding in Situated Environments*, Vrije Universiteit Brussel, Brussels, Belgium, December 2023
- Maarten Vandercammen, *Inter-Process Concolic Testing of Full-Stack JavaScript Web Applications*, Vrije Universiteit Brussel, Brussels, Belgium, October 2023
- Renny Lindberg, *Design Recommendations for Social Engagement Platforms: Towards Enhanced Accessibility for Elderly Users and Long-Term Engagement*, Vrije Universiteit Brussel (supervisor), Brussels, Belgium, July 2022
- Katie Mudd, *How Social Structure Affects the Persistence and Features of Shared Sign Languages*, Vrije Universiteit Brussel, Brussels, Belgium, March 2022
- Sven Coppers, *Intelligibility and Control for Context-aware IoT Applications*, Hasselt University, Belgium, September 2021

- Nathan Magrofuoco, *Multi-Context Template-based Gesture Recognition for Fast Prototyping*, Université catholique de Louvain, Louvain-la-Neuve, Belgium, September 2021
- Sabine van der Ham, *Investigating Cognitive and Functional Biases for Learning Acoustic Categories*, Vrije Universiteit Brussel, Brussels, Belgium, September 2021
- Jan Maushagen, *Mobile Playful Learning Environments: Conceptual Foundations for Informal Learning Environments in the Digital Age*, Vrije Universiteit Brussel (co-supervisor), Brussels, Belgium, August 2021
- Carmen Torres Lopez, *Advanced Debugging Techniques to Handle Concurrency Bugs in Actor-based Applications*, Vrije Universiteit Brussel, June 2021
- Isel Grau, *Self-labeling Grey-Box Model: An Interpretable Semi-Supervised Classifier*, Vrije Universiteit Brussel, Brussels, Belgium, October 2020
- Audrey Sanctorum, *eSPACE: Conceptual Foundations for End-User Authoring of Cross-Device and IoT Applications*, Vrije Universiteit Brussel (supervisor), Brussels, Belgium, July 2020
- Florian Myter, *Triumvirate: A Programming Language Design for Distributed Rich Internet Applications*, Vrije Universiteit Brussel, Brussels, Belgium, December 2019
- Khanh Duy Le, *Designing to Support Workspace Awareness in Remote Collaboration Using 2D Interactive Surfaces*, Chalmers University of Technology, Gothenburg, Sweden, November 2019
- Reinout Roels, *MindXpres: Conceptual and Technical Foundations for Next Generation Presentation Solutions*, Vrije Universiteit Brussel (supervisor), Brussels, Belgium, May 2019
- Linda Di Geronimo, *Exploring Motion-based and Mid-Air Gestures in Mobile Web Contexts*, ETH Zurich, Switzerland, October 2018
- Janwillem Swalens, *A Multi-Paradigm Concurrent Programming Model*, Vrije Universiteit Brussel, September 2018
- Gabor Adam Fodor, *Multimedia Security with Applications in Traitor Tracing, Video Encryption and Art Investigation*, Vrije Universiteit Brussel, Brussels, Belgium, April 2018
- Sandra Trullemans, *Enabling and Informing the Design of Cross-Media Personal Information Management Solutions*, Vrije Universiteit Brussel (supervisor), February 2018
- Pavel Andreevich Samsonov, *Improving Interactions with Spatial Context-aware Services*, Hasselt University, Belgium, December 2017
- Ahmed A.O. Tayeh, *A Dynamically Extensible Cross-Document Link Service*, Vrije Universiteit Brussel (supervisor), Brussels, Belgium, October 2016
- Jens Nicolay, *Purity Analysis for Higher-Order Imperative Languages: An Abstract Interpretation Approach*, Vrije Universiteit Brussel, Brussels, Belgium, June 2016
- Matthias Geel, *Memsy: A Personal Resource Management Infrastructure*, ETH Zurich, Zurich, Switzerland, September 2015
- Lode Hoste, *A Declarative Approach for Engineering Multimodal Interaction*, Vrije Universiteit Brussel (supervisor), Brussels, Belgium, June 2015
- David Catteeuw, *The Emergence of Honest Signaling through Learning and Evolution*, Vrije Universiteit Brussel, Brussels, Belgium, January 2015
- Ugo Sangiorgi, *A Method for Prototyping Graphical User Interfaces by Sketching on Multiple Devices*, Université catholique de Louvain, Louvain-la-Neuve, Belgium, August 2014
- Dietrich Kammer, *Formalisierung gestischer Interaktion für Multitouch-Systeme*, TU Dresden, Dresden, Germany, January 2014
- Ahmed Ewais, *Authoring Adaptive 3D Virtual Learning Environments*, Vrije Universiteit Brussel, Brussels, Belgium, January 2014

- William Van Woensel, *Mobile, Client-Side Context-provisioning via the Decentralized and Integrated Querying of Online Semantic Web Data*, Vrije Universiteit Brussel, Brussels, Belgium, September 2013
- Lamia Abo Zaid, *The Feature Assembly Approach for Modelling and Managing Software Variability*, Vrije Universiteit Brussel, Brussels, Belgium, June 2013
- Quentin Bonnard, *Paper Interfaces: An HCI Approach to Geometry Education*, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland, December 2012
- Elisa Gonzalez Boix, *Handling Partial Failures in Mobile Ad hoc Network Applications - From Programming Language Design to Tool Support*, Vrije Universiteit Brussel, Brussels, Belgium, November 2012
- Abdalghani Mushtaha, *Towards Designing Localized Websites*, Vrije Universiteit Brussel, Brussels, Belgium, August 2012
- Matthias Stevens, *Participatory Sensing for Sustainable Societies - The Case of Urban Noise Pollution*, Vrije Universiteit Brussel, Brussels, Belgium, June 2012
- Wael Al Sarraj, A Usability Evaluation Framework for Web Mashup Makers for End-Users, Vrije Universiteit Brussel, Brussels, Belgium, March 2012
- Adriana Ispas, *Solutions for Natural Notetaking based on Paper-Digital Technologies*, ETH Zurich (co-supervisor), Zurich, Switzerland, December 2011
- Andoni Lombide Carreton, *Ambient-oriented Dataflow Programming for Mobile RFID-Enabled Applications*, Vrije Universiteit Brussel, Brussels, Belgium, November 2011
- Jorge Vallejos, *Modularising Content Dependency and Group Behaviour in Ambient-oriented Programming*, Vrije Universiteit Brussel, Brussels, Belgium, June 2011
- Michael Spranger, *The Evolution of Grounded Spatial Language*, Vrije Universiteit Brussel, Brussels, Belgium, May 2011
- Andres Yie, *A Non-invasive Approach for Evolving Model Transformation Chains*, Vrije Universiteit Brussel, Brussels, Belgium, February 2011
- Mario Sanchez, *Executable Models for Extensible Workflow Engines*, Vrije Universiteit Brussel, Brussels, Belgium, February 2011
- Oscar Gonzales, *Monitoring and Analysis of Workflow Applications: A Domain-specific Language Approach*, Vrije Universiteit Brussel, Brussels, Belgium, September 2010
- Joris Bleys, *Language Strategies for the Domain of Colour*, Vrije Universiteit Brussel, Brussels, Belgium, June 2010
- Sven Van Segbroeck, *Complex Dynamics in Adaptive Networks*, Vrije Universiteit Brussel, Brussels, Belgium, April 2010
- Feng Liu, *Biological Literature Miner - Gene Normalization and Interaction Article Classification*, Vrije Universiteit Brussel, Brussels, Belgium, February 2010
- Yifei Chen, *Biological Literature Miner - Gene Mention Recognition and Protein-Protein Pair Extraction*, Vrije Universiteit Brussel, Brussels, Belgium, February 2010
- Yan Tang, *On Semantic Decision Tables*, Vrije Universiteit Brussel, Brussels, Belgium, October 2009

Programme Committees

- **CHI 2013, 2018**, Workshop Selection Committee, International Conference on Human Factors in Computing Systems
- **CMTA 2009**, International Workshop on Cross-Media Technologies and Applications
- **CoPADD 2006–2007**, International Workshop on Collaborating over Paper and Digital Documents
- **CrowdUI 2014**, International Workshop on User Interfaces for Crowdsourcing and Human Computation

- **DATAVIEW 2010–2011**, International Workshop on Data Visualization and Integration in Enterprises and on the Web
- **DIS 2014**, ACM Conference on Designing Interactive Systems
- **EGMI 2014**, 1st International Workshop on Engineering Gestures for Multimodal Interfaces
- **EICS 2015–2019**, ACM SIGCHI Symposium on Engineering Interactive Computing Systems
- **Hypertext 2020–2021, 2023**, ACM Conference on Hypertext and Social Media
- **ICDEM 2010**, International Conference on Data Engineering and Management
- **ICMI 2015**, International Conference on Multimodal Interaction
- **ICPCA 2007–2008, 2011**, International Conference on Pervasive Computing and Applications
- **ICWE 2014–2016**, International Conference on Web Engineering
- **IMET 2022**, International Conference on Interactive Media, Smart Systems and Emerging Technologies
- **PaperComp 2010**, 1st International Workshop on Paper Computing, Copenhagen, Denmark, September 2010,
- **RCIS 2012**, International Conference on Research Challenges (demo track)
- **RoCHI 2021**, International Conference on Human-Computer Interaction
- **SAAKM 2007, 2009**, Semantic Authoring, Annotation and Knowledge Markup Workshop
- **TEI 2008–2024**, International Conference on Tangible, Embedded and Embodied Interaction
- **TPDL 2011–2012**, International Conference on Theory and Practice of Digital Libraries

Reviewer

- **ACM PACMHCI 2019–2022**, Proceedings of the ACM on Human-Computer Interaction
- **ACM TOCHI**, ACM Transactions on Human-Computer Interaction
- **CHI 2009–2011, 2014–2017, 2019**, ACM Conference on Human Factors in Computing Systems
- **EICS 2013–2014**, ACM SIGCHI Symposium on Engineering Interactive Computing Systems
- **Einstein Foundation**
- **EPSRC**, The Engineering and Physical Sciences Research Council
- **i-com**, Zeitschrift für interaktive und kooperative Medien, 2012
- **IEEE Pervasive Computing**, Journal on Research and Practice in Mobile and Ubiquitous Computing
- **IEEE TLT**, IEEE Transactions on Learning Technologies
- **IEEE TOG**, IEEE Transactions on Games
- **IHM 2019**, French Conference on Human-Computer Interaction
- **IJART**, International Journal of Arts and Technology
- **IJCIS**, International Journal of Cooperative Information Systems
- **IJHCS**, International Journal on Human-Computer Studies
- **IJSWIS**, International Journal on Semantic Web and Information Systems
- **INTERACT 2015**, **2023** International Conference on Human-Computer Interaction
- **IS**, International Journal of Information Sciences
- **ISS 2017**, International Conference on Interactive Surfaces and Spaces
- **ITS 2009, 2015**, International Conference on Interactive Tabletops and Surfaces
- **JMUI**, Journal on Multimodal User Interfaces
- **JPMTR**, Journal of Print and Media Technology Research
- **NRHM**, New Review of Hypermedia and Multimedia
- **NordiCHI 2012**, Nordic Forum for Human-Computer Interaction Research
- **SCP**, Science of Computer Programming

- **SIGCSE 2023**, ACM Technical Symposium on Computing Science Education
- **SNF**, Swiss National Science Foundation
- **TableTop 2006**, IEEE International Workshop on Horizontal Interactive Human-Computer Systems
- **TEI 2016**, Work-in-Progress, International Conference on Tangible, Embedded and Embodied Interaction
- **The Computer Journal**, British Computer Society
- **UbiComp 2006, 2011**, International Conference on Ubiquitous Computing
- **UIST 2007, 2009, 2013**, ACM Symposium on User Interface Software
- **WWW 2006**, International World Wide Web Conference
- **YSC 2018**, International Young Scientist Conference on Computational Science

Session Chair

- **EICS 2016**, 8th ACM SIGCHI Symposium on Engineering Interactive Computing Systems, Brussels, Belgium, June 2016
- **WISM 2010**, 7th International Workshop on Web Information Systems Modeling, Vancouver, Canada, November 2010
- **ICOODB 2009**, 2nd International Conference on Object Databases, Zurich, Switzerland, July 2009

Conference and Workshop Organisation

- Publication Co-Chair of TEI 2024, 18th International Conference on Tangible Embedded and Embodied Interaction, Cork, Ireland, February 2024
- Track Chair (User Interfaces and Hypertext Structures) of Hypertext 2019, 30th ACM Conference on Hypertext and Social Media, Hof, Germany, September 2019
- Late-breaking Results and Demo Co-chair of EICS 2016, 8th ACM SIGCHI Symposium on Engineering Interactive Computing Systems, Brussels, Belgium, June 2016
- Co-organiser of EGMI 2014, 1st International Workshop on Engineering Gestures for Multimodal Interfaces, Rome, Italy, June 2014
- Tutorial Chair of ICOODB 2010, 3rd International Conference on Objects and Databases, Frankfurt/Main, Germany, September 2010
- Local Organiser of CAiSE 2001, 13th Conference on Advanced Information Systems Engineering, Interlaken, Switzerland, June 2001

Editor

- Proceedings Co-editor of EGMI 2014, 1st International Workshop on Engineering Gestures for Multimodal Interfaces, June 2014, Rome, Italy
- Proceedings Editor of CoPADD 2007, 2nd International Workshop on Collaborating over Paper and Digital Documents, London, UK, November 2007
- Proceedings Editor of CoPADD 2006, 1st International Workshop on Collaborating over Paper and Digital Documents, CSCW 2006, Banff, Canada, November 2006

Professional Memberships

- **ACM**, Association for Computing Machinery
- **ACM SIGWEB**, ACM Special Interest Group on Hypertext, Hypermedia and the Web
- **ACM SIGCHI**, ACM Special Interest Group on Human Computer Interaction
- **IEEE**, Institute of Electrical and Electronics Engineers
- **IEEE Computer Society**

Invited Talks

- *Technology Enhanced Learning: Past, Present and Future Research*, seminar talk given for the Faculty of Education at the University of the Western Cape (UWC), Western Cape, South Africa, online, November 2023
- *From Hypertext to Cross-Media Information Spaces*, guest lecture given at Pandit Deendayal Energy University, Gujarat, India, online, October 2023

- *The RSL Hypermedia Metamodel and Its Application in Cross-Media Solutions*, guest lecture in the 'Hypertext and Hypernarratives' seminar organised by Prof. Claus Atzenbeck at Hof University, online, June 2023
- *Bridging the Gap: Managing and Interacting with Information Across Media Boundaries*, Personal Information Management (PIM) seminar organised by Prof. Ofer Bergman, online, February 2023
- *Cross-Media Technologies and Applications: Future Directions for Personal Information Management*, icity Lab Talks, June 2022
- *Cross-Media Information Spaces and Architectures: From Next Generation Presentation Solutions to Tangible Holograms and Dynamic Data Physicalisation*, Invited Talk, Chalmers University of Technology, Sweden, November 2019
- *Towards Cross-Media Information Spaces and Architectures*, Keynote at RCIS 2019, International Conference on Research Challenges in Information Science, Brussels, May 2019
- *CISA: From Interactive Paper to Dynamic Data Physicalisation*, GlobIS Alumni Workshop, ETH Zurich, Switzerland, June 1, 2018
- *Introducing Tangible Holograms for Data Physicalisation and Big Data Exploration*, Global Information Systems group, ETH Zurich, Switzerland, June 2, 2017
- *Cross-Media Information Spaces and Architectures*, Seminar organised by Infogroep, Vrije Universiteit Brussel, May 5, 2015
- *From PaperPoint to MindXpres: Towards Enhanced Presentation Tools*, Education Thursday, Mechelen, December 4, 2014
- *Cross-Media Information Spaces and Architectures*, Seminar organised by Infogroep, Vrije Universiteit Brussel, April 24, 2013
- *Cross-Media Information Systems – Quo Vadis?*, CRAFT, École Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland, November 2, 2012.
- *The Future of Computers and the Internet*, Mens en computer in 2030?, Vrije Universiteit Brussel, March 24, 2011
- *Paper-Digital User Interfaces: Applications, Frameworks and Future Challenges*, User Interface Colloquium, Otto-von-Guericke University Magdeburg, Germany, November 2, 2009
- *Interaktives Papier: Ein neues Medium zur Integration von Papier und digitalen Medien in crossmedialen Publikationen*, Swiss Publishing Week, Hotel Banana City, Winterthur, Switzerland, September 2008
- *Interactive Paper in Cross-Media Publishing*, Zukunft Crossmedia – Publishers Zukunft?, Schule für Gestaltung Bern und Biel, Bern, Switzerland, August 2008
- *Interactive Paper: Introduction and Basic Technology & Interactive Paper – Applications and Future Developments*, Y-Toolbox, Workshop about Paper, Y (Institute for Transdisciplinarity), Bern University of Arts, Bern, Switzerland, April 2008
- *Integrating Paper and Digital Information Spaces: The iServer/iPaper Solution*, Research Seminar, German Research Center for Artificial Intelligence (DFKI), Kaiserslautern, Germany, March 2008
- *Interactive Paper and Cross-Media Publishing*, Treffpunkt Publishing, Berufsschule für Gestaltung, Zurich, Switzerland, January 2008
- *Interactive Paper @ ETH Zurich*, multi task – Crossmediales Publizieren live, multi digital, Baar, Switzerland, November 2007
- *Bridging the Paper-Digital Divide: The iPaper Interactive Paper Framework*, Research Seminar, Faculty of Informatics, University of Lugano, May 2007

Interviews

- *Interview with Beat Signer*, Claus Atzenbeck, ACM SIGWEB Newsletter 2021(Winter), February 2021 [doi:10.1145/3447879.3447881]

Science Communication

- *VUB-onderzoeker bestrijdt schooluitval met nieuwe speelse applicatie*, Het Nieuwsblad, August 2021
- *VUB-onderzoeker bestrijdt schooluitval met app Tickle*, BRUZZ, August 2021
- *VUB-onderzoekers ontwikkelen model voor spelend digital leren voor jongeren met risico op schooluitval*, VUB Today, August 2021
- *VUB-onderzoeker ontwikkelt alternatieve presentatiesoftware*, Emerce.nl, September 2019
- *VUB-onderzoeker komt met PowerPoint-alternatief*, Computable.be, September 2019
- *Belgisch presentatieplatform MindXpres maakt einde aan lineaire navigatie*, Techzine.be, September 2019
- *VUB-onderzoeker ontwikkelde volledig nieuwe presentatiesoftware: "Er gaat the veel, tijd verloren met PowerPoint"*, Pieter Van Nuffer, DataNews, Knack, Belgium, August 2019
- *ArtVis: Gaining New Insights from Digital Artwork Collections*, Installation and Demo at the Dag van de Wetenschap, Atomium, Brussels, November 24, 2013
- *The Future of Computers and the Internet, Mens en computer in 2030?*, Vrije Universiteit Brussel, March 24, 2011
- Interactive Paper in Cross-Media Publishing, Zukunft Crossmedia: Publishers Zukunft?, Schule für Gestaltung Bern und Biel, Bern, Switzerland, August 2008
- *Generosa Enterprise*, Interactive Paper Installation for the 150 Years ETH Jubilee, Platzspitz, Zurich, April 22, 2005 – May 8, 2005

Review Panels

- Programme Review Panel at Hasselt University, October 11–12, 2023

Other Activities

- Participant of the professional education seminar on educational evaluation, November 2017
- Participant of the professional education seminar on the Toetsmatrijs, Mach 2017
- Participant of the seminar on Professional Education organised by the Vrije Universiteit Brussel (2 days), September 2011, Nieuwpoort, Belgium
- Dutch Course (CVO-KHNB), Certificate NT2 Effectiveness 1 (A+B), NT2 richtgraad 4, June 2013
- Dutch Course (CVO-KHNB), Certificate NT2 Vantage 1 (A+B), NT2 richtgraad 3, June 2012
- Dutch Course (CVO-KHNB), Certificate NT2 richtgraad 2, January 2012
- Dutch Course (CVO-KHNB), Certificate NT2 richtgraad 2, Threshold 3 (A+B), June 2011
- Dutch Course (CVO-KHNB), Certificate NT2 richtgraad 2, Threshold 2 (A+B), January 2011
- Dutch Course (CVO-KHNB), Certificate NT2 richtgraad 2, Threshold 1 (A+B), June 2010
- Dutch Course (CVO-KHNB), Certificate NT2 richtgraad 1, January 2010
- Participant of the Inter-Disciplinary Summer School, Information Environments: Analysis and Design, August 2002, Zurich, Switzerland

HOBBIES

- Photography [beatsigner.com/photography/], Travelling, Literature, Beach Volleyball and Snowboarding

PUBLICATIONS

total of 139 publications (**first author: 30 publications**, **last author: 77 publications**)
citations: 2372, h-index: 27, h-frac index: 16, p-index: 0.61 (data by Google Scholar)

Peer Reviewed Conference and Workshop Papers

1. Maxim Van de Wynckel, Isaac Valadez and Beat Signer, *FidMark: A Fiducial Marker Ontology for Semantically Describing Visual Markers*, Proceedings of ESWC 2024, 21st Extended Semantic Web Conference, Hersonissos, Greece, May 2024 (CORE rank B)
2. Yoshi Malaise, Maxim Van de Wynckel and Beat Signer, *Towards Distributed Intelligent Tutoring Systems Based on User-owned Progress and Performance Data*, Proceedings of SoSy 2024 (Poster), 2nd Solid Symposium, Leuven, Belgium, May 2024
3. Maxim Van de Wynckel and Beat Signer, *Discoverable and Interoperable Augmented Reality Environments Through Solid Pods*, Proceedings of SoSy 2024 (Poster), 2nd Solid Symposium, Leuven, Belgium, May 2024
4. Ekene Attoh and Beat Signer, *Towards a Write Once Run Anywhere Approach in End-User IoT Development*, Proceedings of IoTBDS 2024, 9th International Conference on Internet of Things, Big Data and Security, Angers, France, April 2024 (CORE rank C)
5. Yoshi Malaise and Beat Signer, *Explorotron: An IDE Extension for Guided and Independent Code Exploration and Learning*, Proceedings of Koli Calling 2023, 23rd International Conference on Computing Education Research, Koli, Finland, November 2023[doi:10.1145/3631802.3631816]
6. Anisha Sachdeva and Beat Signer, *Inbox Harmony: A Recommendation System to Manage and Organise Emails Based on PIM Principles*, BNAIC/BeNeLearn 2023, Joint International Conference on AI and Machine Learning (Abstract), Delft, The Netherlands, November 2023
7. Maxim Van de Wynckel and Beat Signer, *SemBeacon: A Semantic Proximity Beacon Solution for Discovering and Detecting the Position of Physical Things*, Proceedings of IoT 2023, 13th International Conference on the Internet of Things, Nagoya, Japan, November 2023 [doi:10.1145/3627050.3627060]
8. Piet Van Der Paelt, Ben Lauwens and Beat Signer, *Model-driven Data Storage Using Dynamic Object-Relational Mapping*, SIMULTECH 2023, 13th International Conference on Simulation and Modeling Methodologies, Technologies and Applications (Abstract), Rome, Italy, July 2023 (CORE rank C)
9. Piet Van Der Paelt, Ben Lauwens and Beat Signer, *A Data Persistence Architecture for the SimJulia Framework*, JuliaCon 2023 (Extended Abstract), Cambridge, USA, July 2023
10. Yoshi Malaise and Beat Signer, *Codeschool in a Box: A Low-barrier Approach to Packaging Programming Curricula*, Proceedings of CSEDU 2023, 15th International Conference on Computer Supported Education, Prague, Czech Republic, April 2023 [doi:10.5220/0011967900003470] (CORE rank B)
11. Evan Cole, Yoshi Malaise and Beat Signer, *Computing Education Research as a Translational Transdiscipline*, Proceedings of SIGCSE 2023, 54th ACM Technical Symposium on Computer Science Education, Toronto, Canada, March 2023 [doi:10.1145/3545945.3569771] (CORE rank A, acceptance rate: 35%)
12. Yoshi Malaise and Beat Signer, *King's Scroll: An Educational Game to Practise Code Prediction*, Proceedings of SIGCSE 2023 (Poster), 54th ACM Technical Symposium on Computer Science Education, Toronto, Canada, March 2023 [doi:10.1145/3545947.3576311] (CORE rank A, acceptance rate: 67%)

13. Renny Lindberg, Beat Signer and Olga De Troyer, *Towards Design Recommendations for Social Engagement Platforms Supporting Volunteerism Targeting Older People in Local Communities*, Proceedings of GOODTECHS 2022, International Conference on Smart Objects and Technologies for Social Good, Aveiro, Portugal, November 2022 [doi:10.1007/978-3-031-28813-5_5]
14. Maxim Van de Wynckel and Beat Signer, *POSO: A Generic Positioning System Ontology*, Proceedings of ISWC 2022, 21st International Semantic Web Conference, Hangzhou, China, October 2022 [doi:10.1007/978-3-031-19433-7_14] (CORE rank A, acceptance rate: 19%)
15. Piet Van Der Paelt, Ben Lauwens and Beat Signer, *A Transparent Data Persistence Architecture for the SimJulia Framework*, ORBEL 2022, 36th Annual Conference of the Belgian Operational Research Society, Gent, Belgium, September 2022
16. Maxim Van de Wynckel and Beat Signer, *A Solid-based Architecture for Decentralised Interoperable Location Data*, Proceedings of IPIN 2022 (WiP), 12th International Conference on Indoor Positioning and Indoor Navigation, Beijing, China, September 2022 [ceur-ws.org/Vol-3248/paper11.pdf] (CORE rank C)
17. Yoshi Malaise and Beat Signer, *Personalised Learning Environments Based on Knowledge Graphs and the Zone of Proximal Development*, Proceedings of CSEDU 2022, 14th International Conference on Computer Supported Education, Online Event, April 2022 [doi:10.5220/0010998600003182] (CORE rank B)
18. Maxim Van de Wynckel and Beat Signer, *Indoor Positioning Using the OpenHPS Framework*, Proceedings of IPIN 2021, 11th International Conference on Indoor Positioning and Indoor Navigation, Lloret de Mar, Spain, November 2021 [doi:10.1109/IPIN51156.2021.9662569] (CORE rank C)
19. Ekene Attoth and Beat Signer, *A Middleware for Implicit Human-Computer Interaction Across IoT Platforms*, Proceedings of UbiComp 2021 (Doctoral Consortium), ACM International Joint Conference on Pervasive and Ubiquitous Computing, Virtual Event, September 2021 [doi:10.1145/3460418.3479311]
20. Beat Signer, Reinout Roels, Robert van Barlingen and Brent Willems, *Back to the Future: Bringing Original Hypermedia and Cross-Media Concepts to Modern Desktop Environments*, Proceedings of Hypertext 2021, 32nd ACM Conference on Hypertext and Social Media, Virtual Event, August 2021 [doi:10.1145/3465336.3475122]
21. Audrey Sanctorum, Luka Rukonić and Beat Signer, *Design Requirements for Recommendations in End-User User Interface Design*, Proceedings of IS-EUD 2021, 8th International Symposium on End-User Development, Online Event, July 2021 [doi:10.1007/978-3-030-79840-6_14] (acceptance rate: 57%)
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- *Honourable Mention Award, MUM 2017*, 16th International Conference on Mobile and Ubiquitous Multimedia, Stuttgart, Germany, November 2017
- *Best Paper Award, CSEDU 2015*, 7th International Conference on Computer Supported Education, Lisbon, Portugal, May 2015
- *Best Paper Award, ICALT 2014*, 14th International Conference on Advanced Learning Technologies, Athens, Greece, July 2014
- *Best Paper Award, MobiWIS 2011*, 8th International Conference on Mobile Web Information Systems, Niagara Falls, Canada, September 2011
- *Best Paper Award, USAB 2008*, 4th Symposium on Usability & HCI for Education and Work, Graz, Austria, November 2008

SOFTWARE

MindXpres
Extensible content-driven cross-media presentation platform.
[mindxpres.com]

OpenHPS
Open source hybrid positioning system.
[openhps.org]

eXtensible Information Management Architecture (XIMA)
Platform for universal client access to databases.
[beatsigner.com/xima.html]

iServer framework
Cross-media information server supporting the integration of physical and digital content based on a resource plug-in mechanism.
[beatsigner.com/iServer.html]

iPaper framework
Interactive paper framework including a resource plug-in for iServer as well as various authoring tools and applications.
[beatsigner.com/iPaper.html]

PaperPoint
A paper-based presentation and lecture recording tool for PowerPoint.
[beatsigner.com/paperPoint.html]

iGesture
A general gesture recognition framework. Available under an Apache 2 open source license from [igesture.org] (more than 17 000 downloads).

Gesture Controller (geco)
An application for mapping mouse or pen-based gestures to short key presses and system commands. Geco uses iGesture as its gesture recognition engine.
[igesture.org]

sigtec library
Various Java utilities including for example a caching framework, an XML RPC implementation, HTTP tools and digital ink utilities.

DATASETS

FidMark Ontology
Specification of the FidMark ontology for fiducial markers used in the domain of augmented reality, March 2024 [doi:10.5281/zenodo.10730905]

Dataset for the Paper 'Personalised Learning Environments Based on Knowledge Graphs and the Zone of Proximal Development'
Dataset containing domain-specific information about table tennis and an evaluation of a tool for trainers, February 2022 [doi:10.5281/zenodo.6091625]

OpenHPS: Single Floor Fingerprinting and Trajectory Dataset
Dataset containing fingerprint information of WLAN access points, BLE beacons and IMU sensor data of a single floor, May 2021 [doi:10.5281/zenodo.4744379]

Appendix A - Statistics of https://vub.academia.edu/BeatSigner

Beat Signer

Vrije Universiteit Brussel, Computer Science, Faculty Member

Upload | Edit

Followers	25,340
Following	497
Suggested	42+
Co-authors	37
Total Views	224,291 Top 0.1%
Public Mentions	1,633

Professor of Computer Science, https://beatsigner.com

Beat Signer is Professor of Computer Science at the Vrije Universiteit Brussel (VUB) in Belgium and director of the Web and Information System Engineering (WISE) laboratory. He studied Computer Science at ET...see more

Computer Science +113

CV | Website | 11

UPLOADS

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Books

Fundamental Concepts for Interactive Paper and Cross-Media Information Spaces

While there have been dramatic increases in the use of digital technologies for information stora... more

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246 Readers 92 Related Papers 27 Mentions View Impact Compare Citation Rank

Interviews

Interview with Beat Signer

ACM SIGWEB Newsletter 2021(Winter), February 2021, 2021

Beat Signer is Professor of Computer Science at the Vrije Universiteit Brussel (VUB) and codirect... more

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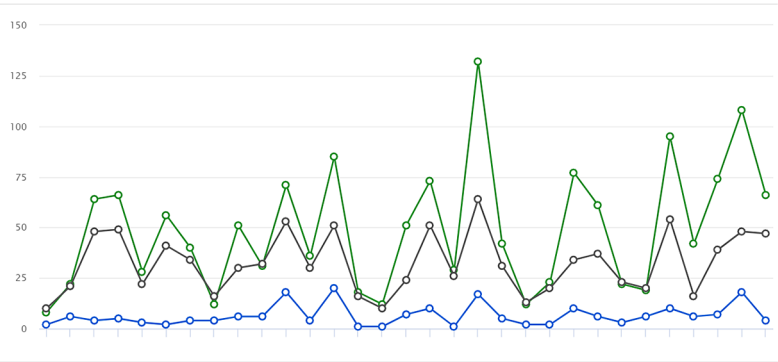
20 Readers 2 Related Papers 1 Mention View Impact Compare Citation Rank

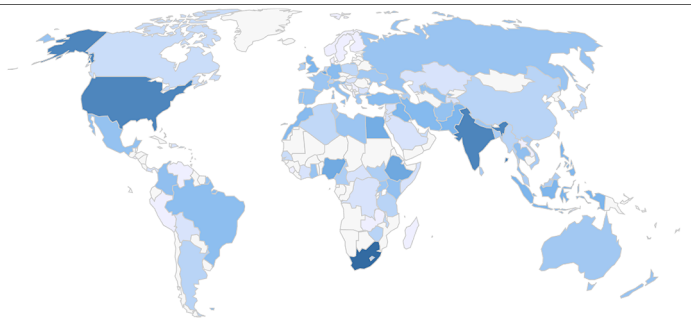
Traffic Overview



30-day Profile Views	30-day Document Views	30-day Unique Visitors
200	1,526	786

User Activity

Date	Role	University	City & State	Country	Content	Source	Pages Read
19:24 Mar 11		Universidad Autonoma de Baja California	Ensenada	Mexico	Interactive Tabletops and Surfaces -...		13
19:21 Mar 11	Graduate Student	Universidad Nacional de Colombia (National University of Colombia)	Bogotá	Colombia	Interactive Tabletops and Surfaces -...		
19:20 Mar 11				The Republic Of Korea	SpeeG2		
18:38 Mar 11	Graduate Student	Universiti Brunei Darussalam	Bandar Seri Begawan	Brunei Darussalam	Cross-Media Information Spaces and Architectures...		
18:29 Mar 11			Accra	Ghana	Cross-Media Information Spaces and Architectures...		
18:21 Mar 11			Edegem	Belgium	A Unifying Reference Framework and...		
18:03 Mar			Edegem	Belgium	A Unifying	academia.edu	6



Country	30-Day Views	All-Time Views
Hong Kong	368	1,083
South Africa	239	2,116
India	116	30,943
United States	114	25,981
Ethiopia	45	3,756
Nigeria	43	5,524
Belgium	41	4,780
Egypt	39	1,663
Iraq	30	922
Indonesia	29	5,697
Pakistan	28	4,947
United Kingdom	28	5,119
Philippines	26	3,191
Iran, Islamic Republic Of	24	2,192
Morocco	23	760
Germany	21	3,533
Slovenia	21	1,176
Turkey	20	1,851
Brazil	19	2,028
Colombia	17	854
Thailand	17	640

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786	488	1,726
Unique Visitors	Downloads	Views

103 Countries		369 Cities		212 Universities	
Country	30-Day Visitors	City	30-Day Visitors	University	30-Day Visitors
South Africa	101	Centurion	35	Addis Ababa University	6
United States	84	Hong Kong	22	Moulay Ismail University, M...	4
India	67	Johannesburg	14	Kwame Nkrumah University ...	4
Nigeria	32	Addis Ababa	13	Peking University	4
Ethiopia	26	Nairobi	11	University of Nigeria, Nsukka	4
98 MORE		364 MORE		207 MORE	

3,629 Research Fields		0.1% Top 0.1% By Views		28 Job Titles	
Research Field	30-Day Visitors	Research Field	Top % By 30-Day Views	Job Title	30-Day Visitors
Computer Science	135	Computer Science and Engi...	0.1%	Graduate Student	35
Education	50	User Experience (UX)	0.1%	Faculty Member	33
Artificial Intelligence	43	Interactive and Digital Media	0.1%	Alumnus	22
Engineering	42	Multimodality	0.1%	Department Member	22
Social Sciences	41	Web Technologies	0.1%	Undergraduate	10
95 MORE		107 MORE		23 MORE	