

Geomatik - Kolloquium

Do. 06.06. ab 16:15 Uhr Griebnitzsee Raum: 3.06.H01

Peter Löwe und Leonie Schäfer Geomatics & Human Computer Interfaces

This presentation provides an introduction to the state-of-the-art in Human-Computer Interfaces (HCI) for Geospatial Technologies:

The daily use of Geographical Information Systems and other applications of computerised mapping have become mainstream in recent years: Computer-based maps are common practice on the World Wide Web, for smartphone use, navigation systems and for traditional desktop computing.

Sophisticated software applications allow the manipulation and analysis of geographical information and are used in location decisions of new businesses, for public service delivery and for planning decisions by local and central government.

However, many applications of GIS are hard to learn and to master: Until quite recently, the main focus of software vendors in the area of GIS was on the delivery of basic functionality and development of methods to present and manipulate geographical information using the available computing resources.

As a result, little attention was paid to usability aspects of GIS. This is evident in many public and private systems where the terminology, conceptual design and structure are all centred around the engineering of GIS and not on the needs and concepts that are familiar to the user.

In this presentation, the linkage between the fields of HCI and Geomatics is outlined and explored - mostly from a geographer's perspective. In particular, the linkage between the areas of geographical information science and cartography on the one hand and HCI and usability engineering on the other shows that there is a disciplinary gap that makes more integrated interactions challenging

Dr. Peter Löwe is a physical Geographer. He studied at the University of Würzburg and UT Austin, venturing into Free and Open Source (FOSS) GIS during his PhD study on Radarmeteorology and Soil Erosion in South Africa. After receiving research prizes for his PhD and spin-off work, he founded GEOMANCERS.net (now: GISIX.com), producing GISIX, the first portable FOSSGIS workbench based on a live-linux CD/DVD.

For the development of early warning systems, triggered by the Sumatra Tsunami of 2004, he joined the National German Research Centre for Geosciences (GFZ) in Potsdam in 2006. After a two-year excursion into the remote sensing satellite industry (Rapideye AG), doing project management and developing visualisation tools, he returned to GFZ for work at the Centre for Geoinformation Technology in 2011. His current work involves scientific project management for the TRIDEC project, large scale computing on the GFZ High Performance Cluster and data visualisation, including 3D Printing. He actively advocates FOSS in Science in the Earth and Space Informatics (ESSI) chapters of both the European Geoscience Union (EGU) and the American Geophysical Union (AGU).



Dr.-Ing. Léonie Schäfer is a research project manager at the German Research Center for GeoSciences (GFZ) and its Centre for GeoInformation Technology (CeGIT). She is currently dealing with projects on e-Infrastructure and Research Data Management. Working at Fraunhofer FIT in St. Augustin, Germany, Léonie did research in the area of Collaborative Work, eLearning and Virtual Reality. Léonie was co-organiser of several workshops at international conferences and member of a number of conference and program committees. Léonie graduated and received her PhD in Computer Science from the Berlin University of Technology.



Next talk

20.06.2013 Dr. André Luckow, BMW Group: Big Data
16:15 Uhr GFZ Haus H, Raum VR1

Veranstalter

Prof. Dr. Bettina Schnor, Institute of Computer Science, Universität Potsdam
Prof. Dr. Joachim Waechter, German Research Centre for Geosciences