

Full-Day Tutorial: Internet Site Development

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Conceptual Modeling of Internet Sites

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Overview

The internet is changing the world of information systems. Web sites and intranets are becoming larger and more complex. Users are often frustrated when trying to find information. Information providers are challenged by demands that require high-quality user interfaces to large stores of information, that require constant attention to maintain currency, and that require the evolution of a site.

Successful internet sites are based on well-designed information stores, specialized business processes, and simple user dialogues that can intuitively be used without any learning and without any misunderstanding. Thus, successful sites are based on a deep understanding of the application area, on sophisticated site modeling and development, and on being properly integrated into the information infrastructure. This tutorial shows how these aims can be achieved and thus how successful internet sites can be built.

The Cottbusnet internet site team has developed more than 20 information-intensive internet sites for communities, towns, and regions. (These sites are now commercially maintained by the Lusitan Information and Media Center GmbH.) The key to this successful development is “co-design” which is a framework for modeling information systems, business processes, and interaction. Applied to internet site development, co-design provides a systematic way to model sophisticated sites and a way to convert the model through design and development into a successful internet site. Based on this co-design framework the Cottbusnet internet team has now also been able to develop successful community services and learning sites.

The tutorial summarizes the experience gained during the development of these sites and discusses in detail systematic methods for site development. Thus, the attendee of the tutorial will learn how to systematically develop an internet site, including user dialogues, information-based services, and integration of information needs and user behavior. The tutorial presentation is to be based on code developed by the Cottbusnet internet team.

Topics

Integrated Modeling of Structure, Process, and Interaction

- Internet Information Site Infrastructure
- Interaction Modeling
- The Co-Design Approach to Modeling

Fundamentals of Media Objects

- Media Objects – Units of Interaction
- Interaction Specification with Media Objects

Systematic Development of Large Sites

- Modeling Large Sites
- Step-wise Development of Large Sites

Case Studies of Internet Services

- Shopping and E-Commerce Sites
- Community Sites
- Entertainment Sites
- Identity Sites
- Learning Sites
- Information Sites

Tutorial Presenters

Dr. Bernhard Thalheim is a professor of Computer Science at Cottbus Institute of Technology, is the author of *Entity-Relationship Modeling: Foundations of Database Technology* (Springer, 2000), and has published over 100 papers on information-system technology. Dr. Klaus-Dieter Schewe is professor of Information Systems at Massey University, has published more than 50 papers on information-system technology, and has collaborated with the Cottbusnet team for more than 5 years.

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