Introduction to Business Informatics

„Wirtschaftsinformatik“ = Business Informatics

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What is Business Informatics?

Created with Wordle based on abstracts of all published articles in BISE 2009/2010.
What is Business Informatics?

- From a “Computer Science (CS) perspective”
  - Part of *Applied Computer Science*?

- From an “Economics perspective”
  - Part of *Economics*?
    - Information as a resource and as a factor of production

- Business Informatics
  - Interdisciplinary discipline interfacing Economics and CS
  - $\text{BI} > \text{Economics } \cap \text{ CS}$

$\Rightarrow$ Discipline on its own
Interdisciplinary Research in the Field of CS and Economics

Based on [8,9,10]
Interdisciplinary Research in the Field of CS and Economics

Based on [10]
Interdisciplinary Research in the Field of CS and Economics

Based on [10]
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Information Systems

Management
Economics
Business
Social
Services
Networks
Model Engineering

Data / Knowledge Engineering
Software / System Engineering

Ambient Intelligence, Security, ...

Based on [5]
Software Engineering Integration
For Flexible Automation Systems

Based on [5]

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Heterogeneous Data Integration


Based on [5]
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G. Kappel et al., The AMOR Project. http://www.modelversioning.at
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Management
Economics
Business
Social
Services
Networks

Smart Homes For All (SM4ALL)
Embedded middleware platform for pervasive and immersive environments for all.

Electronic Negotiation Support Systems (eNS)

**e-Nego-motion**

Goals: Design guidelines for effective eNS, considering socio-emotional, analytical, and technological aspects; design for a new 'best-of' system including:

- Individual decision support
- Negotiation support
- Electronic mediations support

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The Virtual 3D Social Experience Museum

D. Merkl et al., *The VSEM Project*. http://vsem.ec.tuwien.ac.at
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C. Huemer et al., *The ERPEL Project*. http://www.erpel.at
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Fertility and Social Development

Security of Cloud Storage Services (e.g., Dropbox)

Conceptual Framework and Topics

- Computer Science with topics such as
  - Data / Knowledge Engineering
    - e.g., Semantic Web and Integration Technologies (SOA)
  - Systems and Software Engineering, Requirements Engineering, Model-driven Engineering
- Business Engineering
  - Business process engineering as well as Business Intelligence
  - e-Commerce, e-Marketing, e-Government as well as Mobile Commerce
- Services
  - Services Science with Service Engineering
  - Inter-organisational systems
- Networks
  - Business networks and structures
- Societal Issues
Groups and Persons

- **Institute of Software Technology and Interactive Systems**
  - Stefan Biffl: Requirements Engineering / Quality Software Engineering
  - Jürgen Dorn: Competence Management / Knowledge Management
  - Gerti Kappel: Model Engineering / Web Engineering
  - Wolfdieter Merkl: Virtual worlds / Social Computing
  - Andreas Rauber: Neural Networks / Digital Preservation
  - A Min Tjoa: Business Intelligence / Data Mining / Security
  - Hannes Werthner: e-Commerce / (Service) Modeling

- **Institute of Design and Assessment of Technology**
  - Geraldine Fitzpatrick: HCI, CSCW
  - Hilda Tellioglu: CSCW

- **Institute of Information Systems**
  - Schahram Dustdar: Enterprise Engineering / SOA / Cloud Computing

- **Institute of Management Science**
  - Walter Schwaiger: IT-based Enterprise Management, Risk Management, …

- **Institute of Mathematical Methods in Economics**
  - Alexia Fürnkranz-Prskawetz: Population Economics, Dynamic Macroeconomics, …
Foundations of Business Informatics

• Lecturer: Gerti Kappel et. al.
• This course gives an in-depth introduction into the research areas of Business Informatics @ TUV
• **Topics:**
  • Business Informatics @ TU Vienna (Gerti Kappel)
  • Model-based Decision Support (Josef Haunschmied)
  • The Political Economy of Information (Gerhard Hanappi)
  • Model Engineering (Gerti Kappel)
  • Business Process Management (Christian Huemer)
  • Social Software (Wolfdieter Merkl)
  • Research Methods in Software Engineering (Stefan Biffl)
• **Start:** October 28, 2010

• [https://tiss.tuwien.ac.at/course/courseDetails.xhtml?windowId=5a3&courseNr=195012&semester=2011W](https://tiss.tuwien.ac.at/course/courseDetails.xhtml?windowId=5a3&courseNr=195012&semester=2011W)
(10) Robra-Bissaantz: Wissenschaft und Forschung in der Wirtschaftsinformatik, Lecture Slides, Technische Universität Braunschweig.