Center for Organization & Information

Graduation procedure and projects
8 October 2008

Agenda

- Introduction - Sjaak Brinkkemper
- Procedure of a final thesis project – Johan Versendaal
- Research domains and projects
- ‘Market’
Introduction – Sjaak Brinkkemper

Research Group Organisation and Information

- Sjaak Brinkkemper
- Ronald Batenburg
- Johan Versendaal
- Remko Helms
- Slinger Jansen
- Marco Spruit
- Inge van de Weerd
- Jurriaan Souer
- Rogier van de Wetering
- Pascal Ravesteyn
- Ilja Heitlager
- Gilbert Silvius
- Ralph Foorthuis
- Marlies van Steenbergen
- Eva Baaren
- Jurriaan van Reijsen
- Benny de Waal
- Henk van der Schuur
- Lutzen Luinenburg
- Marijn Plomp

...
Research theme

Product Software:
Methodology of Development, Implementation and Entrepreneurship

3 Research lines
I. Development Methodology
II. Implementation and Adoption
III. Entrepreneurship

Product Software Framework
Society is our lab!

MBI research master
- Participation in scientific research
- Collecting data
- Empirical validation
- Experimentation in practice
- Writing scientific paper

You are our lab workers!
- Work under the supervision of experienced researchers
- Employers will greatly appreciate scientific grounded research work!
- Lead research investigations

Procedure – Johan Versendaal
Graduation – Procedure

Graduation – Facts (1)

- 40 ECTS + 4 ECTS (MBI Colloquium) + 1 ECTS (Intro Business Informatics)
- www.cs.uu.nl/groups/OI (Education -> Graduation) for guidelines

- Deliverables:
  - Thesis document
  - (Scientific) paper
  - As desired by company
  - Active participation and presentations MBI Colloquium
Graduation – Facts (2)

- Official start only after approval of thesis proposal document by all supervisors
- Official end with presentation and defense of our thesis
- Thesis: practical AND scientific contribution

Do not start working for a company if you did not finish your thesis project

Source: [www.cs.uu.nl/groups/OI](http://www.cs.uu.nl/groups/OI), via Education -> Graduation

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Graduation – Evaluation criteria

- Research proposal
- Results of the research
- Presentation of the results
- Attitude and motivation
- Overall evaluation

Thesis Evaluation Guidelines

<table>
<thead>
<tr>
<th>Student name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student number:</td>
<td>Superv:</td>
</tr>
<tr>
<td>Thesis title:</td>
<td>Co-rep:</td>
</tr>
</tbody>
</table>

Organization (if applicable): | Extern: |

A. Research proposal

- Choose for: dissertation

Context: The motivation to study the central subject

Description: A description of the central subject

Goal: The research proposal provides a clear description of the research goal, research questions, and research methods.

Overall evaluation: A clear description of the research goal, research questions, and research methods.
Graduation – Topics (1)

And more... Source: http://www.cs.un.nl/groups/OI
(under Education—Graduation)

Graduation – Topics (2)

SJAAK
• Methodology of product software development
• ICT Entrepreneurship
• Method Engineering

RONALD
• Business/IT alignment
• Success and failure in EIS implementation
• E-health systems and applications
• E-business in the Dutch retail sector
• Cross-national/cultural analysis of e-business in Europe

MARCO
• (Natural) Language technologies
• Multimedia Engineering
• Data mining (data-driven Business Intelligence)
• Method Engineering
• Security

REMKO
• Intra-organizational knowledge sharing networks
• Knowledge Management Strategy & Governance
• Organizational impact of information systems
• Social/Knowledge Network Analysis

SLINGER
• Software Supply Networks
• Software Ecosystems
• Software Feedback Analysis
• Product Software Development
• Agile Software Development
• Domain Specific Languages in Product Software Development
Graduation – Topics (3)

JOHAN
- E-Procurement en purchasing
- Business/IT-Alignment
- Product Management

INGE
- Software product management
- Method engineering
- Game production methods

BENNY (with HU)
- Use and adoption of WFM
- WFM and Quality of Work
- Design and Implementation of WFMS (or BPMS)

EVA
- High Definition Television, Diffusion & Adoption

MARIJN
- Interorganizational information systems
- Chain digitization, computerization, collaboration
- Supply chain management

Thesis project – approach (1)

Generic thesis execution process (derived from the problem solving process of Mitroff et al., 1974)
<table>
<thead>
<tr>
<th>Research strategy</th>
<th>Goal</th>
<th>Approach</th>
<th>Data-type</th>
<th>Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative</td>
<td>Explore. What is X? What does X mean? Interpretation and Induction.</td>
<td>Texts, photo’s, observations, interviews. Flexible, fast.</td>
<td>Qualitative and quantitative data on one particular case.</td>
<td>Qualitative methods, group, compare, cluster.</td>
</tr>
<tr>
<td>Survey</td>
<td>Describe, how many, how often, to what degree. Explanatory and testing.</td>
<td>Standardized interviews, broad, general.</td>
<td>Responses to variables from many respondents.</td>
<td>SPSS, Uni- en multivariate analysis of a datamatrix</td>
</tr>
<tr>
<td>Experimental</td>
<td>Causal relations. Why is X. Testing and/or explanatory</td>
<td>Laboratory situation</td>
<td>Information for a limited number of variables and respondents</td>
<td>Analysis of differences</td>
</tr>
<tr>
<td>Design</td>
<td>Innovation, Improve</td>
<td>Investigate, apply, create, invent</td>
<td>Models, prototype, feedback</td>
<td>Empirical validation</td>
</tr>
</tbody>
</table>
Sjaak Brinkkemper

Research Interests
- Methodology of product software development
- ICT Entrepreneurship
- Method Engineering

Finished projects
- An implementation method for WCMS (Inge van de Weerd, Lutzen Luinenburg)
- Business models for product software companies (Ivo van Soest)
- Reference model for game production (Stefan de Weerd)

Running projects
- Maturity of enterprise architecting (with Sogeti)
- Buyer/supply relationships in software ecosystems
- Situation factors in software product management (with Centric)

Open projects Sjaak Brinkkemper

External
1. A software product management workbench (Servoy)
2. A web-based modeling tool for WCMS implementations (GX)
3. Functional architecture modeling for requirements management in product software companies (Isah or Edmond)
4. Process mining in usage feedback data (Exact)

Internal
1. Financial estimations for the ICT start-up business model
2. Determinants of success or failure of venture capital-driven ICT start-ups versus self-starters
3. Modes for the export of on-line software products
Ronald Batenburg

Research Interests
- Business/IT-alignment
- Success and failure in EIS implementation
- E-health systems and applications
- E-business in the Dutch retail sector
- Cross-national/cultural analysis of e-business in Europe
- ERP for hospitals
- IS/IT in the pharmacy sector
- Patient and supply logistics in hospitals
- Health information through the Internet
- Chain computerization in CVA chains and emergency medicine
- Requirements for Web 2.0 in organizations
- HRM portals at the ministry of internal affairs
- Cross-national studies on IS/IT adoption, incl. developing countries

Running & finished projects
- Business Intelligence Competence Centers
- E-business strategies
- E-business adoption in Europe
- E-business adoption in Europe
- Electronic Patient Records for hospitals
- IT and business governance, incl. compliance tools
- Chain digitalization in the Dutch retail sector
- IS/IT strategy and alignment roadmaps
- Open source software strategies
- Optimizing network effects of website traffic
- Technical isomorphism in design and implementation of ERP systems (with Jos Benders, Universities of Nijmegen and Tilburg)
- Cross-nation case studies of adoption, implementations and benefits of IS/IT in Europe (with Hannes Sellhofer, Empirica, Bonn)
- Workflow Management and user satisfaction in public organizations (with Benny de Waal)

Open projects Ronald Batenburg

External
- Yellow Tail
  - IT, business and corporate governance and compliance tools (with Nico Brand)
- Dialogic
  - Point of Sale systems for the Dutch retail sector: a vendor study
  - Innovation and ICT
  - E-government

Internal
- Technical isomorphism in design and implementation of ERP systems (with Jos Benders, Universities of Nijmegen and Tilburg)
- Cross-nation case studies of adoption, implementations and benefits of IS/IT in Europe (with Hannes Sellhofer, Empirica, Bonn)
- Workflow Management and user satisfaction in public organizations (with Benny de Waal)
Johan Versendaal

Research Interests
- E-Procurement en purchasing
- Business/IT-Alignment
- Product Management

Running & finished projects
- Business and IS/IT strategies for raw materials purchasing in the food and beverage industry
- Web 2.0 and semantic implications for e-business
- Product line identification in Content Management Systems
- Business/IT Alignment for purchasing

Open projects Johan Versendaal

External
- Berenschot
- DPA
- Deloitte

Internal
- On purchasing
- On product management irt work of Inge
Remko Helms

Research Interests
- Intra-organizational knowledge sharing networks
- Knowledge Management Strategy & Governance
- Organizational impact of information systems
- Social/Knowledge Network Analysis

Running & finished projects
- Measuring the success of Communities of Practice: framework and tools (Case study; DHV)
- Effectiveness of knowledge broker networks in a multinational corporation (Case study/Simulation; DHV)
- Virtual communities to support knowledge sharing among stakeholders in the healthcare supply chain (Design Research; Medicore)
- Integrated method for knowledge sharing and knowledge artefact networks to assess knowledge sharing efficiency and effectiveness (Design Research; Melbourne University)

Open projects Remko Helms

External
- Unit4Agresso: Design of a knowledge infrastructure to support knowledge circles within a product software company
- Centric: ?
- Company of your choice that deals with a KM subject

Internal
- The evolution of virtual communities on the Internet (e.g. stages, critical mass, activity, participants, roles)
- Adoption of Intellectual Capital reporting by Dutch corporations
Slinger Jansen

Research Interests
- Software Supply Networks
- Software Ecosystems
- Software Feedback Analysis
- Product Software Development
- Agile Software Development
- Domain Specific Languages in Product Software Development

Running & finished projects
- Agile Governance @ BusinessBase – Tjan-Hien Cheng
- Feedback @ Stabiplan – Henk van der Schuur
- Buyers and Suppliers in a SSN – Wilco van Duinkerken
- Model Driven Development @ Response BV – Tim Kapteijns
- Customer Configuration Updating @ University of California Irvine – Wouter Buts
- …

What is a Software Ecosystem?

[Diagram showing relationships between ISV, VAR, Reseller, Consultant, and Outsourcer]
Open projects Slinger Jansen

**External**
- Requirements Engineering in a Vibrant Ecosystem – GX
- Architecting for Extensibility - BusinessBase
- Domain specific design languages – BusinessBase
- Feedback Analysis with Process Mining – Exact Software
- How to survive in software ecosystems? – Multiple orgs.
- Visualising Feedback in IDEs – Stabiplan
- Knowledge management in an Ecosystem – GX
- How open must an interface be? – GX
- Opening Up the Business Model – Stabiplan
- Measuring livelihood of Software Ecosystems – Multiple orgs.
- ...

**Internal**
- Datamining Software Feedback from Mozilla
- ...

Marco Spruit

**Research Interests**
- (Natural) Language technologies (IR/ES, Parsing/Q-A, Speech, Ontologies/Semantic web, SBVR, ...)
- Multimedia Engineering (Business applications of NL techn.)
- Data mining (data-driven Business Intelligence)
- Method Engineering
- Security

**Running & finished projects**
- **Web 2.0:** business models, web strategy
  - Peter Kroof, Senoaji Wijaya
- **Security:** costs, identity management
  - Wouter de Bruijn, Peter Haag
- **Business intelligence:** data quality, user segmentation, data mining
  - Vincent van der Linden, Rick Tijssen, Arjen Vlieugel
- **SOA:** Infrastructure as a Service, SaaS pricing strategies
  - Justin Nieuwerth, Nizar Abdal
Inge van de Weerd

Research Interests
- Software product management
- Method engineering
- Game production methods

Running & finished projects
- **Willem Bekkers**
  Situational factor-based process improvement in software product management (at Centric)
- **Archontoula Amanatiadou**
  Extending the game production reference method (internal)
- **Martin van Walraven**
  Alignment and maturity in software product management: Creation of a capability maturity model for the software product management function (internal)

Open projects

Inge van de Weerd

Internal
- Realization of a process improvement tool for software product management (SPM)
  - Defining assessment questions, based on our SPM maturity matrix
  - Development of an assessment tool (probably in php)
  - Selection of an appropriate method storage tool (e.g. MetaEdit+)
  - Integration of assessment tool with method storage tool

  **Start: a.s.a.p.**

External
- Validating the process improvement tool in multiple case studies

  **Start: jan 2009**
Eva Baaren

Research Interests
- High Definition Television, Diffusion & Adoption

Running & finished projects
- Adoption of HDTV in Dutch households:
  - Technology perceptions & Adoption
  - Contextual factors & Adoption
- HDTV & the TV supply chain (technology, politics and institutional decisions)

Open projects Eva Baaren

Internal
- HDTV adoption & household considerations: qualitative approaches
  - Reasons for Adoption
  - Reasons for Non-adoption
  - Interviews

External
- HDTV & Journalism
  - (How) will the emergence of HDTV change (conventions in) production?
  - Established versus generations
  - Content Analysis, Interviews or Participation
  - Together with Utrecht school of journalism and public broadcasters
Marijn Plomp

Research Interests
- Interorganizational information systems
- Chain digitization, computerization, collaboration
- Supply chain management
- ...

Running & finished projects
- Adoption and use of Point-Of-Sale-systems in the Dutch retail sector (@ Dialogic innovation & interaction)
- Chain computerization for combating identity fraud in Nigeria (@ Nigerian Federal Ministry of Justice)
- Regional analysis of the Disaster Management chain and its systems (@ Veiligheidsregio Utrecht)

Open projects Marijn Plomp

External
- Thesis project @ Dialogic innovation & interaction, e.g. on chain collaboration in the retail sector

Internal
- The influence of Group Support Systems on chain collaboration processes
- Literature study on technological and/or organizational determinants of chain collaboration
- Situationality of chain collaboration
- Chain-related topics in retail, government, health or education
- ...

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Benny de Waal

Research Interests
- Use and adoption of WFM
- WFM and Quality of Work
- Design and Implementation of WFMS (or BPMS)

Running & finished projects
- Effect of WFM on Quality of Work at UWV
- BPM and curriculum design
- Business Process Management in the Netherlands (with Capgemini)

Open projects
Benny de Waal

External
- Use and Adoption of WFM at CAK
- Design and Implementation of WFM at Carantegroep
Pascal Ravesteyn

Research Interests
- Business Process Management
  - Software for BPM
  - Implementation methodologies
  - Human Interaction as part of BPM
- The Business Side of Service Oriented Architecture
- Business Rules Management

Running & finished projects
- The use of SOA in e-Learning (Educator)
- Defining Enterprise Services (Deloitte)
- Identifying Added Value of BPM (Centric)
- Defining competencies for BPMS Implementation
- Development of a BPM/SOA maturity model (Capgemini)

Open projects

External
- Research on Human Interaction functionality offered by BPMS providers (in cooperation with Capgemini)
Our services

IT Advisory (ITA)

IT Advisory (ITA) helps organisations and institutions with their IT performance, governance and compliance related issues

Our engagements are very diverse, for example:

- Outsourcing
- Strategy
- Project advisory
- IT Auditing
- Information security

Thesis Subjects?
Possibilities at KPMG

A few examples of topics that have been researched...
- How can one develop a method for choosing between the different IT strategy models?
- What IT governance structure should be adopted after a merger or acquisition?
- What kind of role can shared service centers play in the health sector?

A few examples of topics which can be researched…
- Success factors for a big IT project
- Value of IT – how to achieve it?
- IT trends within energy companies
- … or any fantastic idea of your own!
Final remarks

- The Center’s website: www.cs.uu.nl/groups/OI
  - News
  - Education -> Graduation information