GroupOrga - Participative and Distributed Organization Design for Office Information and Workflow Management System

Collaborative Organization Design: A Synergy of Groupware and Web-based Infrastructures and Technology

Dipl.-Wirt. Inform. Marcus Ott
Dipl. Inform. Carsten Huth
University of Paderborn
Goals of this presentation

- define collaboration in an organization design context
- position the current workflow management discussion in a larger organizational context
- give information and suggestions in dealing with Organization Design (OD)
- motivate to understand OD as an active design approach of every organization member instead of it being a passive reaction to environmental changes
Level of collaboration

- collaboration technology
  (e.g. groupware)
- personal tools
  (point-to-point)
- information distribution
  (one way, e.g. e-mail)

one person

various people

team based OD

Organization Design as a Groupware-supported Team Process
GroupOrga - Participative and Distributed Organization Design for Office Information and Workflow Management Systems

Dipl. Wirt.-Inform. Marcus Ott
Control of Business processes: Workflow Management Systems (WfMS)

Workflow Model

A1

A2

A3

A4

A5

A6

Credit applic.

Large credit

Check cust.

Fill form

Credit plan

Small credit

Large credit

Check cust.

Fill form

Credit plan

Credit applic.

Small credit
WfM: What does it focus on and where does this technology (try to) help?

- Focuses at time factor
- Aims at flexibility of business processes in order to get away from the "standard processes"
- Analysis and control of business processes carried out in division of labour
- Widely accepted aims:
  - improve the quality of the results of business processes
  - drastically reduce the turnaround time of processes
  - provide effective electronic dokument-management with archiving
  - allow to get status information about current processes
  - all in all: more effectiveness for office processes
<table>
<thead>
<tr>
<th>Ad-hoc-Workflow</th>
<th>Task-Force</th>
<th>Semi-structured</th>
<th>Standard-Workflow</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Mail based</td>
<td>Not predefined workflow</td>
<td>e.g. open teamwork within highly structured workflow</td>
<td>well structured workflow</td>
</tr>
</tbody>
</table>

"store-and-forward"-system to agents

common data, single steps of agents

combination of predefined task and open, flexible team

general definition of "next agent"
Elements of Organization Design

**Structure**

Static organization
- organizational entities
- resources

Framework for business processes

Dynamic organization
- working order
- interdependencies
- division of labour

Regulation of business processes

Process oriented organization design

appropriate design of work in an organization
## Goals of GroupOrga

<table>
<thead>
<tr>
<th></th>
<th>Business processes in Workflow and Office applications</th>
<th>hard coded workflow applications</th>
<th>Modifyable descriptions, even ad-hoc modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Definition of organization structure for WfM and office systems</strong></td>
<td>Predefined at implementation time</td>
<td></td>
<td>Independently modeled, distributed and participative</td>
</tr>
<tr>
<td><strong>Adaptation of processes to organizational framework</strong></td>
<td>Static</td>
<td></td>
<td>Dynamic</td>
</tr>
</tbody>
</table>
Graphical notation of computer based GroupOrga tools

Formal enterprise model of GroupOrga
Organization Design Continuum

Vertical Organization
- Organizational unit, position, location, persons

Horizontal Organization
- Organizational unit, position, workgroup, resource

Self-design + guidance
- Workgroup, resource, role

Group Organization
- Knowledge/skill, role, authorization

Degree of centralization vs. number of people involved

Singular design vs. group design
Multidimensional infrastructure model

Organizational Processes (Workflow Modelling)

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**Tools of the GroupOrga System**

**Prof. Dr. Ludwig Nastansky**
University of Paderborn
Business Computing

**Organization Design as a Groupware-supported Team Process**
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_Dipl. Wirt.-Inform. Marcus Ott_
### Continuum of user types of organization modelling tools

<table>
<thead>
<tr>
<th>Type and intensity of use</th>
<th>Read access only</th>
<th>Administration of one’s own data</th>
<th>Occasional adaptations</th>
<th>Regular changes</th>
<th>Intensive changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Push-button” information needs</td>
<td>“Push-button” information needs</td>
<td>Administration of one’s own organizational data</td>
<td>Occasional changes or adaptations of organizational structure within a unit</td>
<td>Regular departmental design and planning across units</td>
<td>Regular design from scratch, planning, analysis, reporting</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management-level</th>
<th>Independent of management-level</th>
<th>Without management tasks</th>
<th>Lower level management</th>
<th>Tactical management</th>
<th>Strategic Management</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>User type</th>
<th>End-user</th>
<th>Administrator</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Relative share of employees of an Enterprise</th>
<th>High</th>
<th>Very low</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Intensity of use</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Frequency of use</th>
<th>Low</th>
<th>Low</th>
</tr>
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## Varying demands of user types

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</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount of functionality</strong></td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td><strong>Access rights</strong></td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td><strong>Setup time and costs</strong></td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td><strong>Costs of maintanance</strong></td>
<td>Low</td>
<td></td>
<td></td>
<td></td>
<td>High</td>
</tr>
<tr>
<td><strong>Plattform independence</strong></td>
<td>High</td>
<td></td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Time to get acquainted to</strong></td>
<td>Low</td>
<td></td>
<td>High</td>
<td></td>
<td></td>
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### Technologies to support the specific needs of different user types

<table>
<thead>
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<th>Technology</th>
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</tr>
</thead>
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<td>Java &amp; Web</td>
<td>Plattform independent</td>
<td>Groupware &amp; Java</td>
<td>Standalone Tool with interoperability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plattform strategy</td>
<td>Plattform independent</td>
<td>Plattformspecific, possibly available for a small number of different platforms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distributed information system</td>
<td>Internet/Extranet</td>
<td>Intranet</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Java & Web**
  - Plattform independent
  - Standalone Tool with interoperability

- **Groupware & Java**
  - Plattform independent
  - Plattformspecific, possibly available for a small number of different plattforms

- **Internet/Extranet**
- **Intranet**
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Organizational Politics - Or: Hands Off my Data

- some kind of organizational data always exists user names, network access lists), these directories cover a fraction of the whole organizational data
- org. departments are not used to offering their data to others
  solution: central repository with replication

The Privacy Concern

- privacy becomes an issue when data is promoted over networks
  solution: passwords, access rights (?)

Cleaning Up the Mess

- different directories have different format
  solution: clean up and consolidation is necessary

Multivendor Systems at the Start

- integration and synchronization of different directories
  solution: maybe LDAP (?)
Questions - Contacts - Readings

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- http://fb5www.uni-paderborn.de/Winfo2/GroupOrga


