Knowledge Society

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Learning Targets

• Which are the main objectives of new public management?
• How can we characterize the shift towards a knowledge society?
• Which steps are needed for knowledge management?
• How can a knowledge worker be characterized?
• Which parts should an ethical conduct cover?
New Public Management

- Clearer distinction between public service providers (government, NGO’s, NPO’s and private companies), service ‘consumers’ (citizens, companies) and financing authorities (parliament, government) should be achieved
- Improving democratic processes, i.e. by eventually more direct democratic elements
- Balancing market-driven and society-based aspects, i.e. structure, orientation, leadership, responsibility and control
- Implementing eGovernment strategies
Decentralization in the New Public Management by Schedler and Proeller 2006

Dimensions of decentralization in the New Public Management by Schedler and Proeller 2006
• Globalization of markets
• International competition
• Intermediation & Disintermediation ...
Changes of Technology

• Integration of computer technology and communication
• Ubiquitous computing (smart objects)
• Cost breakdown in ICT (information and communication technology)

“The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.”

Mark Weiser, 1991 (The Computer for the 21st Century)
Social Changes

- Demographic changes
- Changes in household structures
- Multi-option society

Aaron Sorkin, screenwriter of the film the social network, says: “Facebook makes us wrong”.
<table>
<thead>
<tr>
<th>Change of the market and competitive situation</th>
<th>Progress of information and communication technology</th>
<th>Changes in working environment and society</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Globalization of markets</td>
<td>• Cost breakdown of CPU performance</td>
<td>• Value shift in society</td>
</tr>
<tr>
<td>• Structural change in sectors</td>
<td>• Cost breakdown in storage media</td>
<td>• Changing lifestyles</td>
</tr>
<tr>
<td>• Increase of market dynamics</td>
<td>• Miniaturization</td>
<td>• Changes in household structures</td>
</tr>
<tr>
<td>• Growing complexity of products and services</td>
<td>• Global networking information technology</td>
<td>• Demographic changes</td>
</tr>
<tr>
<td>• Increase in market uncertainty</td>
<td>• Convergence of information technology</td>
<td>• Extension of the qualification structure (Knowledge Worker)</td>
</tr>
<tr>
<td>• Intermediation and disintermediation</td>
<td>• Digitalizing of value creation chains</td>
<td>• Labor market</td>
</tr>
</tbody>
</table>

Economic, technological and social change by Reichwald et al. 1997
Value Creation

• A lot of societies rely on information and knowledge
• Value creation: selecting, storing, sharing, distributing, and transforming knowledge
• Education and formation are part of eGovernment programs
• Inclusion of all citizens is necessary
• Overcoming the digital divide
Use of Knowledge-Based Instruments

Knowledge Acquisition
- Formulate target knowledge
- Identify knowledge
- Acquire knowledge

Knowledge Protection
- Knowledge store
- Knowledge link
- Protect knowledge

Knowledge Distribution
- Communicate knowledge
- Disseminate knowledge
- Transform knowledge

Knowledge Application
- Knowledge use
- Evaluate knowledge
- Adapt knowledge

Process in Knowledge Management
A knowledge worker has the following skills:

- She or he is able to abstract complex problems
- She or he is avoiding tasks of routine or programming activities
- She or he asks for a high degree of independence
- She or he feels highly responsible
- She or he knows to use information and knowledge-based systems
USE OF KNOWLEDGE-BASED DATABASES

Knowledge-based Information System

- Knowledge Bank
- Software system
  - User guide
  - Dialog Design
  - Query language
  - Manipulation language
  - Knowledge acquisition component
  - Explanatory component
  - Problem solving component
  - Research helps
  - Access rights
  - Data Protection
- Bank methods for data mining
- Databases

Communication Network or WWW

Question

Citizens or Authority Members

Reply

Development and use of expert systems
Benefits of Tele Work for the Company

- Reduction of fluctuation
- Improvement of the working atmosphere
- Relief of the employees
- Loyalty of highly qualified employees
- Development of the employees potential
- Increase of productivity

after [Wheeler/Zackin 1994]
Benefits of Tele Work for the Employee

- Reduction of work interruptions
- Increasing the personal productivity
- Reduction of commuting time
- Increase in motivation / identification
- Increase of liberties concerning the work place

after [Wheeler/Zackin 1994]
Barriers of Tele Work for the Company

- Time scheduling problems
- The customer’s needs
- Changes in the company’s organisational structure
- Equal treatment
- Lack of proper control possibilities
- Opposition of the middle management

after [Wheeler/Zackin 1994]
Barriers of Tele Work for the Employee

- Interruptions at home
- Worse opportunities for the career
- Prejudices of other employees
- Isolation from the workflow
- Isolation from the team

after [Wheeler/Zackin 1994]
### Success Factors for eTeams I

<table>
<thead>
<tr>
<th>Area</th>
<th>Empirical Results / Changes in the e-Team</th>
<th>Result in Headlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of tasks</td>
<td>Electronically networked teams know the dimensions of their tasks better than conventional teams</td>
<td>Understanding the tasks of the team</td>
</tr>
<tr>
<td>Blocking</td>
<td>With the use of asynchronous computer meetings, the participants can present their ideas all at the same time. Less ideas are forgotten, more ideas are born because the team doesn’t have to follow the meeting all the time and has time to think things over.</td>
<td>Less Blocking</td>
</tr>
<tr>
<td>Discussion</td>
<td>Asynchronous computer supported discussions can last as long as necessary. There is no need to end the discussion.</td>
<td>No incomplete discussions</td>
</tr>
</tbody>
</table>

*after [Hodel 2001]*
# Success Factors for eTeams II

<table>
<thead>
<tr>
<th>Area</th>
<th>Empirical Results / Changes in the e-Team</th>
<th>Result in Headlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domination</td>
<td>Dominating team members create less problems because their influence on the team is reduced by computer supported meetings</td>
<td>Reduction of domination</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Teams with communication supporting systems can detect problems, mistakes, and dead ends earlier than teams without such systems. New ideas are evaluated in a more positive way because less information can be hidden.</td>
<td>A more objective evaluation</td>
</tr>
<tr>
<td>“Memory”</td>
<td>Synchronous and asynchronous computer meetings can be stored. It is possible to review single parts or the whole meeting again. Missing or forgotten postings can be detected</td>
<td>A better “memory”</td>
</tr>
</tbody>
</table>

*after [Hodel 2001]*
# Success Factors for eTeams III

<table>
<thead>
<tr>
<th>Area</th>
<th>Empirical Results / Changes in the e-Team</th>
<th>Result in Headlines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formation of groups</strong></td>
<td>In synchronous meetings people with the same opinion gather together and form groups. In asynchronous computer meetings everyone can discuss with any other person.</td>
<td>Less formation of groups</td>
</tr>
<tr>
<td><strong>Information</strong></td>
<td>Electronically networked teams can process information in a more efficient way.</td>
<td>Optimal information processing. Better use of Information.</td>
</tr>
<tr>
<td><strong>Co-ordination</strong></td>
<td>Electronically networked teams are better organised and co-ordinated than conventional teams. The bigger part of the work does not depend on time or place.</td>
<td>Optimal co-ordination</td>
</tr>
</tbody>
</table>

after [Hodel 2001]
## Success Factors for eTeams IV

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<tr>
<th>Area</th>
<th>Empirical Results / Changes in the e-Team</th>
<th>Result in Headlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criticism</td>
<td>In synchronous meetings, the criticism in not very severe because of politeness. In asynchronous meetings, the different opinions are more obvious.</td>
<td>More severe criticism</td>
</tr>
<tr>
<td>Performance</td>
<td>Electronic networks create new forms of teamwork and are motivating the team members for better performance.</td>
<td>Stimulation of performance</td>
</tr>
<tr>
<td>Learning</td>
<td>With the possibility to ask questions without disturbing the other members permanently (phone call, personal meeting, ...) and with the online access to the work of the other team, members can learn a lot from each other.</td>
<td>Learning from each other</td>
</tr>
</tbody>
</table>

after [Hodel 2001]
Transformation bridge between individual and organizational learning by Probst and Büchel 1994

Development of a Knowledge Society

Transformation conditions: Communications, Transparency and Integration

Characteristics of organizational or collective learning

Properties of individual learning

- Personal experiences
- Patterns of cognitive change
- Individual reflection
- Behavior change by Trial and Error

- Transpersonal experiences
- Knowledge and value base
- Normative order
- Questioning of norms and values
Anytime & Anyplace

- Telephone conferencing
- Two-way-video
- Remote screen sharing
- Data conferences on linked electronic boards

- Face-to-face
- Whiteboards
- Flip charts
- Computer projectors
- Video
- Large graphic displays

- E-mail
- Voice-mail
- Computer conferencing
- Fax / Express-mail
- Shared data base

- Workstations
- Bulletin boards
- Kiosk
- Team rooms
Minsky:
„We’re going to make machines intelligent. We are going to make them conscious!“

Engelbart:
„You’re going to do all that for the machines? What are you going to do for the people?“
DIFFERENT BUT BETTER ....

- **Spare time**
  - Recreation
  - Compensation

- **Monetarised work**
  - Part time jobs for wife and husband
  - Not disturbing the needs of others

- **Active work**
  - Decrease of fix costs
  - Ecological
  - Independence

- **Mandatory social work**
  - Official duty
  - Three years in three periods

- **Informal welfare work**
  - Voluntary work for social and ecological needs

- **Me-time**
  - Time for body, mind, and soul
  - Health, sports, culture, religion, ...

- **Reproduction time**
  - Development, support, education and care, of the future generations

after [Ruh 1996]
• Societies should agree on common values
• Societies should respect each other independent of political system, religion, and culture
• International organizations should offer platforms to establish open societies
• A common ethical conduct for the eSociety and knowledge society is needed
The five dimensions of ethical conduct by [Laudon & Laudon 2002]
Right to Information

- Organizations, companies and citizens need information
- However, citizens privacy must be protected
- Personal data may only be used for business purposes
- Citizens must be informed about the purpose of data gathering
- Collecting data on web platforms is only allowed if citizens give their explicit consent
Right of Property

- The right of property of information and digital goods must be kept (copyright)
- Cryptographical procedures are necessary
- Digital signature is needed
- A Public Key Infrastructure must be build worldwide
Responsibility

- Individuals (citizens, politicians, etc.) are required to act responsibly
- Individuals should respect the copyright of digital goods and services
• Availability and security of web-based information systems and platforms must be guaranteed and supervised
Citizens have the right to be dis-connected from the web
A deletion key for the Internet is needed
Computer work places must be organised in semi-autonomous teams, which are supported by digital communication tools in order to create real communities, integrity, respect for the individual and to stimulate outstanding achievements.

after [Hodel 2001]