Structuration of Personal Learning Environments
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Criticisms of the LMS
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Schneider, 2003

Figure 7: The status of documents - static in transmissive pedagogics and living in active pedagogics
Criticisms of the LMS

- Administrative Functions
- Controlled Cohorts
- Teacher with all rights
- Prepared courses
- Learners consume
- Limited communication
- No design freedom
- Instruction

Figure 7: The status of documents - static in transmissive pedagogies and living in active pedagogics

Schneider, 2003
Early PLE concepts

Personal Learning Landscape

Elgg
personal learning landscape

Weblogging
Individual and groups
(Syndication - RSS)

Search

Personal file repository

Social Networking
(FOAF)

Friendster
LiveJournal

flickr
delicious
Technorati

CMS

LDAP
authentication

Communities
built on shared interests
each community is an
instance of Elgg

Elgg users can also
search through all other
Elgg users repositories

Other Elgg accounts

GLOBE
Global Learning Objects
Brokered Exchange

All data in Elgg is
an object wrapped
in searchable
meta-data

Note: learners can completely customise
their learning landscape through the
templating system

Note: powerful permissions allow the
learner to have complete control over who
has access to what in their landscape

Note: A system like this would enable
learners to not just be the consumers of
information but also contributors

1) Data will be available
that shows which items
communities and
groups access within
the GLOBE repository

2) This will be important
as it will provide a good
indicator of the most
popular information

3) Which in turn will
allow people to search
and access data that is
relevant to them!

Werdmuller 2004
Early PLE concepts
Early PLE concepts

Wilson 2005

Friday, December 3, 2010
A working definition

“Personal Learning Environments are learning environments where learners can integrate distributed information, resources and contacts and reflect about learning progress and learning products based on standards and interfaces”.

Schaffert/Kalz 2010
Educational processes

Personal Learning Environment

Your identity: contact info, interests, values, reputation

Your network: contacts, collaborators, teams, teachers, mentors, colleagues, organizations, authors, friends, family, information, sources

past
What You've Done
e-portfolios, portfolios, resumes/CV, storage, annotated bookmarks, blog, artifacts (photos, media, descriptions)

What You've Learned
credentials, PLA, student administration data, statements and demonstrations of learning, LMS data, blog

What You're Doing
LMS, blogs, contact lists, memberships, project progress, job titles/tasks, activity feeds

What You're Learning
online communities, LMS, blogs, booklist, subscriptions, who you're learning with

What You Want to Do
43 Things, future pursuits, career plans, desired credentials, possible lifestyles, skill development

What You Want to Learn
43 Things, IEP, PDP, learning goals, desired credentials, skill development

Self-Directed Learning Tools
ELO, e-portfolios, aggregators, blogs, wikis, e-mail/IM, feed splicing, bookmark/photo sharing, online communities, project management, to-do lists, authoring software

Collecting
Aggregating, combining, storing (web/local), organizing, filtering and prioritizing artifacts/contacts/information

Reflecting
Reviewing, connecting concepts, remembering, synthesizing, journaling/blogging, private/public group permissions

Connecting
People and information: group-forming, shared goals/concepts/visions/interests/values/tags/information

Publishing
Select, modify, combine, attribute, target and publish. e-portfolio, blog, CMS, authoring software, print, burn, send

Jeremy Hiebert 2006

Friday, December 3, 2010
PLE vs. the rest

Schaffert/Kalz 2010
PLE perspectives

Central: Self-Organization

- Communication and cooperation with other learners
- Administration of Artifacts, Documentation of learning
- Organisation von Wissensquellen und eigenem Content
- Communities of Practice
- Personal Knowledge Management
- E-Portfolio

Schaffert/Kalz 2010
Technology: Mashups & Widgets
Technology: Mashups & Widgets
Technology: Personal Start Pages
Technology: Institutional PLE projects

University of the Basque Country/Casquero 2008
Technology: Institutional PLE projects

TU Graz/Taraghi, Ebner & Schaffert, 2009
LMS: Monolithical blocks?
The proceedings
The research questions

• No empirical research about actual usage of PLE
• How do learner organize their learning environments?
• Does this lead to deep learning?
• Which learning processes are supported effectively?
• How is learning in groups supported?
• Security and data sharing
If I read one more post: "E2.0 (or social technology) is changing the org..."! Face it, they don't do anything! People do! #e20

@mkalz This is the old black and white picture about technology and people. Don't underestimate technology as tools made by people #e20
A conversation

@mkalz
Marco Kalz

Reading too many statements "X is people and not technology" (X=E.20/TEL). We need a more integrated view of interaction between ppl/techn.
Structuration Theory

Anthony Giddens
British social theorist, born 1938. Prolific output. Theory of 'structuration' solved problem of whether individual acts, or major social forces, shape society, by asserting that it is human agency which continuously reproduces social structure. This relationship means individuals can bring change. In the 1990s, Giddens fashioned theory on how selves find meaning, and create narratives of identity, in modern society.

For more, see www.theory.org.uk/giddens

STRENGTHS: Social analysis mixing classic and modern
RISKS: Misguided postmodernists may attack
SPECIAL SKILLS: Appreciation of impact of feminism
Adaptive Structuration Theory

Orlikowski & Robey, 1991

Institutional Properties

Technology

Human Agents

time

Orlikowski & Robey, 1991
Theoretical foundation

<table>
<thead>
<tr>
<th>Arrow</th>
<th>Type of Influence</th>
<th>Nature of Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Information Technology as Product of Human Action</td>
<td>Information Technology is an outcome of such human action as design and development, appropriation, and modification</td>
</tr>
<tr>
<td>b</td>
<td>Information Technology as a Medium of Human Action</td>
<td>Information Technology facilitates and constrains human action through the provision of interpretive schemes, facilities, and norms</td>
</tr>
<tr>
<td>c</td>
<td>Conditions of Interaction with Information Technology</td>
<td>Institutional Properties influence humans in their interaction with information technology, such as, intentions, design standards, professional norms, state of the art in materials and knowledge, and available resources (time, money, skills)</td>
</tr>
<tr>
<td>d</td>
<td>Consequences of Interaction with Information Technology</td>
<td>Interaction with information technology influences the institutional properties of an organization, through reinforcing or transforming the systems of signification, domination, and legitimation</td>
</tr>
</tbody>
</table>

Table 1: Analysis relations for structuration (Orlikowski & Robey 1991)
Adaptive Structuration Theory

„There is no doubt that technology properties and contextual contingencies can play critical roles in the outcomes of advanced information technology use. The difficulty is that there are no clearcut patterns indicating that some technology properties are contingencies consistently lead to either positive or negative outcomes” (DeSanctis & Poole 1994, S. 124).
PLE break the rule

„Designers incorporate some of these structures into the technology; the structures may be reproduced so as to mimic their nontechnology counterparts, or they may be modified, enhanced, or combined with manual procedures, thus creating new structures within the technology. Once complete, the technology presents an array of social structures for possible use in interpersonal interaction, including rules [...] and resources” (DeSanctis/Poole 1994, S. 125).
Structuration of PLE

- Due to their technological structures PLE make structuration processes visible
- We need to study these structuration processes to learn more about the impact of these open learning technologies
- A structurational analysis of PLE:
  - Prior knowledge to PLE usage
  - Institutional influences/context
  - Rules and Resources
  - Appropriation processes
  - Learning outcomes
Thank you for your attention

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