Designing open learning environments for professional development

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Handover project meeting
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overview

- the problem - six use cases
- inspiration - open source development
- a hypothesis - Learning Networks
- requirements - for learning, for interaction
- solutions - two scenarios plus one
- in summary - the Handover solution
the problem
six use cases
update & upgrade

James is a chemical engineer working for an SME. He wants to pursue a career as a water manager with the local water board. He therefore needs to update and upgrade his skills.
Jean, a lawyer working for a pharmaceutical company, finds out she needs to expand her knowledge in order to get a more thorough understanding of the science part of the company, in particular about biotechnology.
internal knowledge sharing/building

A multinational wants to do away with its travelling road show of trainers and stimulate its employees to study online. They also want to stimulate the build-up of a collective knowledge base and stimulate the emergence of communities of practice.
innovation

The association of public libraries wants to rethink its role in society and retrain its personnel in the process. Collaborative open innovation and creativity as well as joint sense making and learning are key.
keeping up to date

An SME wants to innovate constantly and therefore needs to keep its personnel up to date. *Collaborative open innovation* and creativity as well as *joint sense making* and *learning* are key.
world-wide knowledge sharing

A large international agency wants to distribute existing knowledge on a particular topic more equitably. Not duplicating existing work and world-wide knowledge sharing are key.
formal training
& informal learning

individual perspective: upgrade, update, expand ...
organisational perspective: share knowledge, innovate?, no duplication of efforts?

Handover toolbox
inspiration
open source networks
‘Internet technologies radically undermine organizational structures because they reduce the cost of communications and transactions toward an asymptote of zero (p. 171).’

Hence, go online.
‘This enables the formation of ‘episodic communities on demand’, so-called virtual organizations that come together frictionlessly for a particular task and then redistribute to the next task just as smoothly.’

Hence, use a networked approach.
There are deeper levels to the book

- micro-foundations, what drives people: pride; being an innovator; self-promotion; doing things together

- macro-organisation, how to make it work: co-ordination (individual incentives, shared norms, and leadership), cope with complexity (division of labour)
a hypothesis

Learning Networks
a hypothesis

All use cases may be addressed by working with Learning Networks.

Provisional definition: online, social networks that have been modelled after networks for open source software development in an attempt to capture their dynamics.
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<th>formal learning</th>
<th>informal learning</th>
<th>accidental learning</th>
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<td><strong>compulsory initial</strong></td>
<td>‘schools’</td>
<td>non-existent</td>
<td>cannot be designed</td>
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<td><strong>further post-initial</strong></td>
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A Learning Network = \text{DF}

- an online social network
- that is deliberately designed
- to blend formal instruction and informal learning
- in ways that suit the learner’s needs best
design requirements
for learning & support
judge (interpret, analyse, classify)

requirements for learning competent, expert behaviour

transfer: perform adequately effectively & efficiently

acquire knowledge

anticipate
Specific competent behaviour

Knowledge
Skills
Attitudes

Internalised
Learn and
Action theory

Personality traits
social learning

- learning is not passively downloading
- learning is interactively (re)organising and extending what you know and can do
  - interact: with other agents (environment)
  - organise: make ‘fit’ in with
  - extend: build upon

Friday, April 8, 2011
design for social learning

Wiebe Bijker: interpretative flexibility of artefacts (philosophy of technology)
support services

- online profile
- e-portfolio
- billing
- assessment of prior competences
- network visualisation
- content provision and matching
- coaching (peer, teacher)
- tutoring (peer, teacher)
- authoring
- collaboration support
solutions

two scenarios plus one
central control

- there is an organisation which is in control, acts as a one-stop-shop for services
- an online environment is designed, developed, maintained by them
- you have to ‘go there’ to participate in the network
- it is a closed infrastructure
examples

- VLEs such as Moodle, Blackboard
- Content Management systems such as Sharepoint, Drupal
- portals such as iGoogle, Netvibes, Liferay, Elgg
distributed control

• your desktop is your environment, no one is in control

• use all kinds of Web 2.0 tools to assemble an open infrastructure for learning

• tools should somehow be interoperable (APIs, specs like open social, IMS spec on Tools Interoperability, widgets)
examples

- LinkedIn, FaceBook, Yammer, Academia
- Mindmeister, Google Docs
- Twitter, Jabber
- Slideshare, Google Docs, Zotero
- Del.icio.us, Mendeley, CiteULike, Connotea,
- Wikipedia, Wikiversity, Wikibooks
intermediate solution

• blend of distributed and central control
• central control for formal training
• distributed control for informal learning (knowledge sharing & knowledge construction)
in summary
the Handover solution
1. **the problem** - design for professional development, taking personal and organisational interests into account

2. **inspiration** - open source development shows the way

3. **a hypothesis** - networks for learning, best modelled after open source networks?
4. **requirements** - look at what we already know about learning and interaction

5. **two solution scenarios** - differentiate between a centralised and distributed approach

6. **blended scenario** - central control for formal instruction, distributed control for informal learning
University networks and technical platforms will have to focus on managing the increasingly permeable boundaries among universities, and between universities and the world outside them. University platform design should be focused on ensuring that faculty and students have the greatest degree possible of authority and capacity to act freely, innovate internally, and participate externally.

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