Networked Learning in Networks: infrastructures for social learning & distributed innovation

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overview

- the problem - six use cases
- inspiration - open source networks
- a hypothesis - Learning Networks
- requirements - for learning, for support
- solutions - two solution scenarios
- summary - some challenges
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.
Summary

- they are about lifelong learners for whom
- school-based learning and ordinary training does not work as they require
- flexibility in terms of logistics, content and pedagogy/didactics
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 and let communities flourish
• 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
an hypothesis

All use cases may be addressed by working with *Learning Networks*, online, social networks that have been modelled after networks for open source software development.
<table>
<thead>
<tr>
<th>forms vs contexts of learning</th>
<th>formal learning</th>
<th>non/in-formal learning</th>
<th>accidental learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>initial, compulsory education</td>
<td>‘ordinary’ education</td>
<td>does not occur (it should perhaps?)</td>
<td>out of scope, happens anyway</td>
</tr>
<tr>
<td>post-initial, further education</td>
<td>‘continuous’ education, training</td>
<td>lifelong learning</td>
<td>out of scope, happens anyway</td>
</tr>
</tbody>
</table>
A Learning Network = DF

an online social network that is specifically designed to support lifelong learning and lifelong professional development
• design ingredients

• web 2.0 technologies for interaction?

• any resource available, but thriving on open (educational) resources?

• (open source-like business model: make money through additional services?)
design requirements for learning & support
assimilate (interpret, analyse, classify those insights)

learn (gather new insights)

requirements for becoming competent, for ultimately becoming an expert

anticipate (learn to deal with novel situations)

act in the world (effectively & efficiently)
Drivers:

- learn (gather new insights)
- assimilate (interpret, analyse, classify those insights)

Online Content:
- frozen, depersonalised knowledge, externalised by various people

Requirements for becoming competent, for ultimately becoming an expert

Critical friends:
- tacit knowledge, personal, still internalised

Anticipate (learn to deal with novel situations)
networked learning

• not passively ‘downloading’, but actively organising and extending what you know and can do in interaction with others

• organise: make fit with what you know

• extend: build upon what you know

• interact: do so with critical friends
support services

• online profiling
• assessment of prior learning
• content provision and matching
• authoring (user-generated content)
• coaching (peers in teacher role)
• tutoring (peers in expert role)
• collaboration support
• network visualisation
solutions

two solution scenarios
centralised 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; custom-made tools

• you have to ‘go there’ to be part of it

• it is a closed infrastructure
examples of tools

- VLEs such as Moodle, Blackboard
- Content Management systems such as Sharepoint, Drupal
- Portals such as iGoogle, Netvibes, Liferay
- Augmented by a suit of custom-built tools
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
- tools should somehow be interoperable (APIs, open social, widgets)
examples of tools

• LinkedIn, FaceBook, Yammer, Academia
• Mindmeister, Google Docs, Twitter
• Slideshare, Google Docs
• Del.icio.us, Zotero, CiteUlike, Connotea
• Wikipedia, Wikiversity, Wikibooks
• Augmented by a suit of custom-built tools
custom-built tools

- tutor locator (using lsa)
- content recommender (mash-up)
- profiling service, trust profile
- group formation tool
- problem: interoperability
in summary

some challenges
1. **the problem** - design for professional development, taking the interests of individual people and of organisations into account

2. **inspiration** - open source software development, it shows that online collaboration can work and how it does so
3. **A hypothesis** - Learning Networks, modelled after open source networks, can address the learning needs discussed in the use-cases

4. **Two solution scenarios** - Differentiate between a centralised and distributed approach, and between a corporate and a private approach
Challenge 1

• To what extent can commercial social media - Facebook, LinkedIn - be used? There is a conflict of interest here!

• commercial interest are prime, not those of the learners

• being critical is not desirable for them, but it is necessary for learning
Challenge 2

- To what extent are pure institutional social media feasible?
- Competition for customers with commercial sites is lost cause
- Functionality is bound to lag behind (deep pockets)
- ROI and interoperability
Challenge 3

• Is a fragmented online identity a problem?

• A consolidated identity is better for recommendations and better for interaction with critical friends (note that online you are your online identity)

• Consolidation of online identities is hard if not impossible to achieve (privacy)
How to make sure the social web becomes a learning environment that supports lifelong learners
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Questions? Follow-up!

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