OER Research Agenda Discussion

for OpenEducation2006 (29/9)

Discussing the development of a research agenda for Open Educational Resources

Convened by the IIEP
Co-facilitated by
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Overview

- Summary of the discussion

  - and some highlights

- Conclusions drawn

- Suggested follow-up actions

- Discussion

Process

- Generate questions

- Categorise

- Prioritise

- Discuss, discuss, discuss

Categories of Questions

- Background research

- Economics

- Methodology (research)

- Creation

- Quality assurance

- Dissemination

- Finding

- Using

- Localization

- Interventions

- Scenarios

- Policy

Alternative Categories

- **OER creation**: DIY, collaboratively, quality assurance, iterative processes and localization, interoperability/standards, and capacity building.

- **Organisation**: governance and management schemes, licensing, metadata, classification and searching.

- **Dissemination**: awareness and delivery, particularly for low bandwidth situations.

- **Utilisation**: mechanisms and business models for re-use.

- **Interventions**: methodologies, localization, best practices, learning patterns and scenarios.

Aspects of the discussion

- Background research

    - What is already known about OER?

    - Aim: to understand current OER practice: user needs, usage levels among various user groups, characteristics of organizations successfully using OERs, the importance of standards, describing and classifying OERs and OER initiatives, contextual factors (e.g. low bandwidth), effectiveness of OERs, learning from other open initiatives, etc.

Aspects of the discussion

- Economics
  - Sustainable financing of OER development:
    - define economic and business models for initial OER development, operational deployment and the evolution of a project
      - Although OER offers significant opportunities for innovation in education, there is a need for long-term funding to realise that potential.
      - The developmental imbalance between developing and developed nations in the use of technology for education means that there is a need for economic models that promote equality in access, production and use of open content, irrespective of geography or social and ethnic background.

(3) Economics continued

- OER provides an opportunity for open dialogue, where previously unheard voices can ask questions and break the restrictive moulds of traditional academic structures. Social equity and open access are therefore vital, but academic powers could seek to marginalise them in the name of economic protectionism.

    - Content development costs are enormous for conventional textbook publication. Open textbook content would provide a cheaper option.

(4) Methodology

- Participants did not look at research methodology per se, but agreed that

  - research should be orientated towards discovering what works, what does not work, and how to improve learning processes. What new features do OER need? Localization questions, collaboration, learner support, stakeholders and roles, best practices, and learning patterns and scenarios should all be considered.

(5) Methodology continued

- The range of questions and research areas suggest a variety of research methods, which need to be considered carefully on a project-by-project basis.

    - Surveys and traditional methodologies could play a major role in background research & in most of the areas listed.

    - Anthropological research techniques, for e.g. could be especially well suited to studying OER communities and online collaborative initiatives, or cultural issues connected with adapting and using materials in new contexts.

    - Research on interventions and scenarios, however, may require variations on action research, and/or design, development and constructive research.

(6) Creation

- Collaborative authoring was a popular theme

  - the need to develop a culture that will promote collaboration and that is supported by appropriate licensing, formats and standards.

  - authoring by professional peers versus authoring by learners as both users and producers.

  - The idea of a "Do-It-Yourself" (DIY) OER Portal was first introduced following a question on how to involve a wider range of OER stakeholders in the creation process.

(7) Quality Assurance

- Quality touches everything and is central to most research areas – OER creation, commons-based peer production, technology investigations, dissemination, learning patterns (use/practice), etc.

  - Quality OER results from quality OER development processes, and that quality OER practice is a fertile area for research. The discussion touched on tools and methodologies to support quality OER development processes.

  - Participants expressed a need for author guidelines that set out quality and interoperability criteria.

(8) QA cont'd

- Finding ways of ensuring high quality translation of materials: e.g. MIT translation --> Q+l10n

- Facilitating the discovery of good quality OER

  - quality is subjective, and that quality standards for one situation might not be applicable to another.

  - Relevance is a key component of quality measures.

- Learning from FLOSS development and open/free content.

- Assessing the expertise of OER contributors.

(9) Dissemination

- Creating awareness

- delivery methods

    - web

    - mobile

    - paper

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(10) Finding OER

- How do educators and learners access, identify and select OER that meet their needs, and

- what barriers exist to doing so?

- A key part of an OER portal could be to provide a resource for those looking for "quality assured" materials that are suitable for adaptation to their own teaching and learning environments.

  - cf QA above (relevance, etc.)

(11) Localisation

- i.e. adaptation of OER to new teaching and learning contexts

- Participants stressed that it is important to localize not only content but also the learning process. The work should be a collaborative effort between faculty and teachers, content experts, and learning scientists and instructional designers so that the resulting materials are enriched by expertise in the subject area and in learning design.

(12) Interventions

- How OER initiatives may be structured and the key decisions required for implementation.

  - building a research programme around interventions to introduce ICTs, including free/libre software and free/libre learning resources

  - Engaging with communities, identifying needs, goals. Multiple interventions at various levels.

  - focusing on activities related to the use of OER (self study, ..., using OER to learn how to improve living conditions in a community, or to get a qualification for a job...), ... new learning design patterns
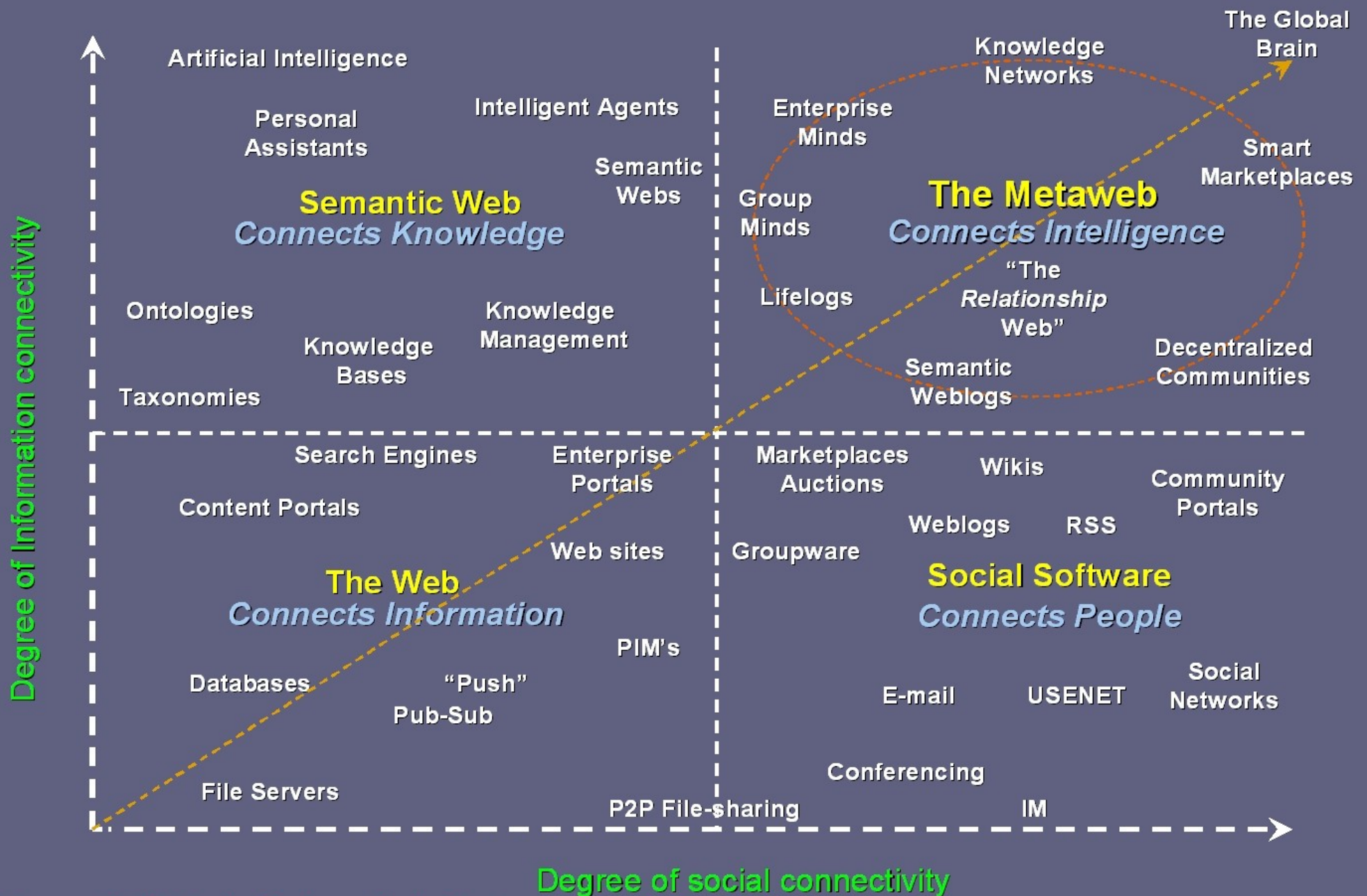
(13) Scenarios Res

- The future will be different – learning from the past might not be too helpful.

- Engage with the present and explore possible futures:

  - scenario planning, conceptual modelling, action research, constructive research, ...

- The discussion tended to focus on developments that best promote and use the dynamic, interconnected and self-organizing aspects of OERs and OER practice, most notably social software and other technologies facilitating social interaction for knowledge exchange.

(14) Scenarios Research (cont'd)

- Participants interested in scenarios research had a preference for activities in which learners are active in the design of curricula and syllabi and in the creation of knowledge.

    – Technologies are available to facilitate interactive approaches for this, such as Web2.0 technologies and the use of peer-to-peer (p2p) environments, where users can freely access a variety of multimedia resources (text, video, audio, etc.).

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Degree of Information connectivity (vertical axis)

Degree of social connectivity (horizontal axis)

Artificial Intelligence

Intelligent Agents

Personal Assistants

Semantic Webs

Semantic Web
Connects Knowledge

Ontologies

Knowledge Management

Knowledge Bases

Taxonomies

Knowledge Networks

The Global Brain

Enterprise Minds

Group Minds

The Metaweb
Connects Intelligence

Smart Marketplaces

"The *Relationship* Web"

Lifelogs

Semantic Weblogs

Decentralized Communities

Search Engines

Enterprise Portals

Marketplaces Auctions

Wikis

Community Portals

Content Portals

Weblogs

RSS

Web sites

Groupware

The Web
Connects Information

Social Software
Connects People

PIM's

Databases

"Push" Pub-Sub

E-mail

USENET

Social Networks

Conferencing

File Servers

P2P File-sharing

IM

Permission to re-use with attribution to: Nova Spivack www.mindingtheplanet.net

(15) Policy

- Although several policy issues emerged, the challenges with regard to intellectual property and licensing received the most attention.

  - "Attribution" vs *-NC-*

    - Localisation, alternative media, ...

    - For the Create, Rip Mix and Share culture

  - Attribution-ShareAlike

    - free/libre resources or "libre learning resources"

    - guarantees freedom of future derived works

    - a culture of freedom would be simpler and more impactful.

(16) DIY/T Portal

- Addressing the need for developing countries to become active participants in the OER world, adapting and using existing resources, and generating OER of their own.

- A DIY site could popularise and promote the effective use of OER, introduce freely available technologies and software, and share good practice, as well as practical information on how to set up new OER programmes and online "OER systems", and how to attract funding.

(17) DIY Portal (cont'd)

- A DIY approach to OER in Africa could enhance the potential for fundamental changes to post-colonial power and wealth imbalances.

- May have a positive effect on the OER movement:

  - significant wider use in the developing world could promote acceptance of OER by even the most traditional institutions and could help break down barriers to knowledge sharing, promoting a truly democratic sense of access and ownership.

  - this could lead to significant changes in the global imbalances in economics, education and the applications of technologies and science.

(18) FLOSS & OER

- Areas for Synergy:

  - developing a knowledge-sharing culture – comparisons with the FLOSS communities;

  - governance and management schemes for OER organization, including IPR and licensing issues;

  - OER storage/portal mechanisms, tagging and metadata systems;

  - classification methodologies, interoperability and searchability;

  - implications of a collaborative development approach for human resources capacity building, productivity and workflow planning.

(19) FLOSS/OER$_2$

- It was suggested that in fully "open" situations, where learners may be both users and contributors to OER production, the benefits and commonalities are greatest, and issues of scalability and sustainability are easily handled.

Conclusion

- the community's "strength in diversity" was evident throughout the discussion – diversity in terms of the members, their perspectives, interests, activities, offerings and contributions.

- The dynamic list of questions is a reasonable reflection of the research needs of the OER movement, and they were raised by people with a need for answers, or a desire to solve these issues.

- Rather than a final product, the agenda may therefore be defined as an ongoing process of communication and networking, to facilitate self-organizing, community-guided research and action, drawing on collective knowledge, guided by collective wisdom, and powered by the energy and enthusiasm in the community.

Formal Activities

- Articulate a formal research agenda via a formal process.

- Conduct reviews of OER, FLOSS and Open Content research, with a synthesis indicating similarities, differences and mutual learning opportunities.

- Conduct a workshop for OER and FLOSS experts to brainstorm current and future learning opportunities, and publish the proceedings.

- Convene a joint discussion between the IIEP FLOSS and OER communities, and write up a report. This may include a discussion of the proposed OER, FLOSS and Open Content research reviews and inspire the DIY OER Portal design and development process.

- Explore the DIY OER Portal idea further (done :-)

- Identify champions to sustain the OER research community (perhaps) via the portal, wiki and discussion lists.

Informal Activities

- Community support and active participation in the formal activities.

- "Just-do-it" and share the experience.

    – to enhance global OER practice.

- Continue to question, discuss and sow the seeds of action :-)

Invitation

- Join the discussions via e-mail:

  – virtual.university@iiep.unesco.org

- Read the report:

  – http://oerwiki.iiep-
    unesco.org/index.php?title=OER_research_agenda

Thank you :-)

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and convenors at UNESCO-IIEP

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Workshop 1

1. Think of 1 – 5 really important research questions, and write them down.

2. Read the handout which lists all the questions by category

    i.   Select a category of most importance

    ii. Select or add a question of most importance.

- Discuss --> http://oerwiki.iiep-unesco.org/index.php?title=OER_research_agenda

    – --> click on "Research Agenda Comments

Provocative statements

- All research on the past is relevant, the future will be different.

- All OERs from the "developed" world are irrelevant for the rest of the world. Localisation is always needed.

- Other free/open initiatives have all the answers.

- The non-commercial license debate is irrelevant:

    - talk only about free/libre learning resources – free licenses.

Workshop 2

- 10 -15: Groups: form, appoint scribe/rapporteur and time keeper.

- 15-20: In group: introduce yourselves with name, institution and one word which describes how you are feeling in these closing stages of the conference :-).

- 20-30: In pairs: tell your partner about a positive OER experience, jointly identify the most positive factor that contributed to this aspect that contributed to its success. Each person has 5 minutes to tell their story.

  – Record: (1) a descriptive title for the story, (2) the name of the story teller, and (3) the most positive factor.

- 30-35: In group: each pair to report back on the two most positive aspects identified: for both stories: the story title, and the factor.

- 35-40: Everyone together: Rapporteurs: for everyone briefly describe the most positive factors emerging.

- 40-45: Sum up and ask: how many of these factors will be relevant in future?

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