Managing & Learning in Massive(ly) Open Online Courses

George Siemens
October 21, 2010
“If you don’t like change, you’re going to like irrelevance even less”

General Eric Shinseki
Chief of Staff, US Army
Traditional Course

Faculty-provided resources & activities are centre of learning & social interactions

Content & Interaction

Spaces of Learning

Accessible domain of knowledge

Classroom
Field
Lab
Work setting

Textbook
Syllabus
Videos
Lectures
Demonstrations
Readings
Activities
Guest speakers
What is an open course?
Based on connectivist theory of learning

Knowledge is networked
Learning is pruning/growing connections
Orienting oneself to complexity
Control shift
Scaling social dimension of learning
Connectivist Course

Learner-produced artifacts re-centre learning & social interactions

Content & Interaction
- Textbook
- Syllabus
- Videos
- Lectures
- Demonstrations
- The Daily
- Guest speakers
- Learner-organized
  - Course
  - Blog
  - Readings
  - Activities

Spaces of Learning
- Classroom
- Lab
- Work setting
- Field
- Multi-language
- Virtual Worlds
- Elluminate
- Moodle
- Global
- Twitter
- Blogs
- Facebook
- Wikis

Accessible domain of knowledge
Open teaching & learning
Open Access Presentation: Managing and Learning in a MOOC

Stephen and I will be presenting on Managing and Learning in a MOOC as part of Athabasca University's Open Access Week. We'll be talking about the MOOC model, participation patterns, literacies, and the technical aspects of running open courses. The session will be held here in elluminate. Conversions to different time zones is available.

Facilitator Posts

To view the entire blog post, click on the title of the post, and you'll be taken to the blog post itself. Alternatively, click on [Link] to proceed to the post without your click being counted.

Discussion Posts

Each week, PLENK moves to a new weekly discussion forum. You can see them all here.

Delicious Links

Participants' Blogs

Twitter Posts
Weltanschauung: Changing views, changing systems

George Siemens on Nov 24th 2009

Originally, this week was to be a conference week with the representation from U of M’s business faculty. However, things haven’t quite materialized 😞. Our topic, stays the same – weltanschauung: changing views, changing systems.

The last several decades have brought about significant change in the information cycle (creation, validation, sharing, repurposing) and in how people interact with each other. Each era creates institutions that reflect the information-based needs they face (McNeely & Wolverton). Libraries in Alexandria, the Academy in Greece, churches in the middle ages, and schools/universities (~800 years ago). If we want to understand the institutions a society will create, we must first understand the nature and attributes of information of that era. And that’s what we’ve been doing so far in CCK09.

The readings this week provide an opportunity to think about systemic change in education:

New structures and spaces of learning: The systemic impact of connective knowledge, connectivism, and networked learning

Higher Education, Globalization, and the Knowledge Economy (.pdf)

Week 11 Discussion Forum
Welcome to the Connectivism and Connective Knowledge Online Course support wiki.

Conference tags: CCK08

This page is also available in: Spanish, Portuguese, Italian, Hungarian, Chinese (Simplified Character Version), and German easier.

This course also has a FaceBook group at CCK08

Contents

1. Please enter your email address here if you'd like to be involved (either for free participation or to enrol)
2. Course blog is available here
3. Course Details
4. Weekly Activities
5. Learner Assignments and Evaluation
6. Course Links
7. Pre-week 1
8. Week 1: What is Connectivism? (September 8-14)
9. Week 2: Rethinking epistemology: Connective knowledge (September 15-21)
10. Week 3: Properties of Networks (September 22-28)
11. Week 4: History of networked learning (September 29-October 5)
12. Week 5: Connectives and Collectives: Distinctions between networks and groups (October 6-12)
13. Week 6: Complexity, Chaos and Randomness (October 13-19)
14. Week 7: Instructional design and connectivism (October 20-26)
15. Week 8: Power, control, validity, and authority in distributed environments (October 27-November 2)
17. Week 10: Openness: social change and future directions (November 10-16)
19. Week 12: The Future of Connectivism and Directions in Research (November 24-30)
## Discussion: LMS

### General forums

<table>
<thead>
<tr>
<th>Forum</th>
<th>Description</th>
<th>Discussions</th>
<th>Subscribed</th>
<th>RSS</th>
</tr>
</thead>
</table>
| **Introductions**       | Introduce yourself to other participants in the course. Let us know:  
  - Where you’re from  
  - Why you're interested in this course  
  - What has to happen in order for you to consider this course a success  
  - Random information about yourself - your work, your experience with networked... | 500         | Yes        |     |
| **General Forum**       | General chat and information leading up to the launch of the course in early September, 2008                                                                                                                | 122         | Yes        |     |
| Registered students     |                                                                                                                                                                                                             | 1           | Yes        |     |
| **Week 1: What is connectivism** | This week, we take a slightly different direction by focusing on knowledge itself. This topic may not be of interest to all participants, but it is one that forms the basis for subsequent clarifications and discussions on connectivism. We'll use this forum to tackle topics related to knowledge... | 11          | Yes        |     |
| **Week 2: Rethinking Knowledge** |                                                                                                                                                                                                         | 25          | Yes        |     |
Live Sessions
Exclusively use open educational resources
(no pay wall readings)
Openness produces more of itself
Learner Artifact

- Discussion
- Interaction
- Amplification
- Curation
Content and Information

Who?: anyone, everyone

Tension point #1: Finding quality content

Big vat of distributed content

Connections and Conversations

Conversation

Educators
Learners

Tension point #2: Creating pathway through content

Connections

Educators
Learners

Tension point #3: Fostering connections between teachers and learners

Recognition and Accreditation

Who?: experts, peers, educational institutions

Through interaction with:
- Peers
- Experts
- Network

Reputation: sustained participation in a learning network

Tension point #4: Determining competence

University/college/corp role:
- Mediate content
- Foster and guide connection forming
- Support accreditation

Models of content & people discovery and rating:
- eBay?
- Amazon?
- eHarmony?
Criticality of creation
Participation in MOOCs: Sandbox for developing new literacies
The diagram illustrates the process of learning and interaction. It includes the following components:

- **Aggregation**: Integrated services (iGoogle), gRSShopper.
- **Creation**: Creation of an artifact, which can be individual or collaborative.
- **Interaction**: Asynchronous interaction, synchronous interaction, and quasi-synchronous interaction.
- **Curation**: The Daily, Moodle, course resources, readings, interaction around learner artifacts.
- **Learner** interacts with **Creation**, which leads to the creation of an artifact.
- **Artifact** can be individual or collaborative.
- **Interaction** is facilitated through asynchronous, synchronous, and quasi-synchronous methods.
- **Educator** is connected to **Curation**, suggesting guidance or support in the learning process.
A networked course does not have a centre
Paths & structure do not exist a priori
Fragmentation produces confusion
Abundance requires new methods for coping
Knowledge coherence through social sensemaking & wayfinding
Sub-networks/Groups
Learner-created (&owned) spaces
Technological systems for aggregation
Experiences of learners second time?
Patterns of participation
Table 1

Nationality \((N = 81)\)

<table>
<thead>
<tr>
<th>Country</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>14</td>
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<tr>
<td>Italy</td>
<td>8</td>
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<tr>
<td>Australia</td>
<td>7</td>
</tr>
<tr>
<td>UK</td>
<td>4</td>
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<td>Argentina</td>
<td>3</td>
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<tr>
<td>The Netherlands</td>
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<tr>
<td>Venezuela</td>
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<td>Spain</td>
<td>3</td>
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<tr>
<td>New Zealand</td>
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<td>Other</td>
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</tbody>
</table>

Table 2

Mother Tongue \((N = 83)\)

<table>
<thead>
<tr>
<th>Language</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
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<tr>
<td>Italian</td>
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<tr>
<td>Spanish</td>
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<td>3</td>
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<tr>
<td>German</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Antonio Fini, 2009

Figure 11. Frequency of high relevance (N = 83).

Source: Antonio Fini, 2009
Connectivism & Connective Knowledge 2008
Moodle Forum Analysis

Week ➔

![Graph showing the analysis of Moodle Forum participation and posts over weeks, with data points for participants and posts marked for each week. The graph indicates fluctuations in participation and posts throughout the weeks.]
Connectivism & Connective Knowledge 2009
Moodle Forum Analysis

Week →

1. 122
2. 71
3. 50
4. 40
5. 37
6. 20
7. 19
8. 23
9. 17
10. 61
11. 27
12. 5
13. 5
14. 17

Participants
Posts

Week:
1. 399
2. 257
3. 180
4. 178
5. 228
6. 78
7. 38
8. 71
9. 61
10. 137
11. 49
Personal Learning Environments & Networks 2010

Week →

- Participants (Moodle)
- Posts (Moodle)
- Blog Posts
- Tweets
- Elluminate

Week 1: 206, 129, 95, 50, 36
Week 2: 437, 470, 159, 121, 202
Week 3: 482, 126, 64, 105, 88
Week 4: 381, 99, 80
Week 5: 299
Bounded spaces & openness
TLSTN

Description:
This group supports the Teaching and Learning in Social and Technological Networks course

Brief description:

Tags: tlstn

Owner: George Siemens
Group members: 33

Website:
Information and social relation splicing
Welcome George Siemens

To add an Activity Tab for a group or collection, go to My Account -> Configure your tab.
Where next?
A model of:
- design
- pedagogy
- delivery
- assessment
is emerging
One-click open course
Forum for inter-institutional collaboration
Learning Analytics

Because it (information, interaction) is **explicit**, it can be measured, mined for patterns, used for personalization/adaptation.
https://tekri.athabascau.ca/analytics/

www.elearnspace.org/blog

Twitter/Facebook/Quora: gsiemens