The Semantic Condition

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The principles of connectivism - autonomy, diversity, openness and connectedness in practice.

- “Our findings suggest that these might all be achievable in a complex learning network, but in a course (as opposed to a network), particularly a massive open online course, they can be compromised.”

Jenny Mackness, Sui Fai John Mak, Roy Williams
http://eprints.port.ac.uk/5605/1/The_Ideals_and_Realilty_of_Participating_in_a_MOOC.pdf

Autonomy

- Factors affecting mental states
  - Empirical, cognitive, psychological

http://halfanhour.blogspot.com/2010/11/model-of-autonomy.html

- Capacity to act on mental states
  - Physical, social, structural, resources

- Scope and range of autonomous behaviour
  - Expression, association, selection, method…

- Effects of autonomous behaviour
  - Impact, improvement

From the study…

Autonomy was equated to flexibility and control over learning and exemplified by the participants' choices of how, and how much, to engage with the course.

- "Thanks to the learner autonomy I thought would be provided in the course, I started following the course. If it would have been a more rigid structure, I would not have done so (due to time/work schedule reasons). "
- "We had a lot of autonomy because we could basically do what we wanted; participate fully for credit, fully for no credit or on the varying scale of 'partial participation'. "

However learners new to the environment and concepts lacked confidence and preferred structure, guidance and even intervention to autonomy.

- Autonomy was less important when I needed full instructions
- I felt like some guidance would have helped. Freedom is great, but this course was all over the place. There was no one place to follow the latest thinking on any one subject.

It was also found that autonomy was equated with lack of assessment and that learner autonomy can be difficult for the course instructors.

- I loved the freedom to work outside assessment guidelines – choose what I wanted to focus on.
- Learner control is not without frustration for the instructor. I recall feeling a bit frustrated that the concept of connectivism that I was trying to communicate - the neural, conceptual, and social/external dimensions of networked learning – was not resonating with participants.

Discussion of Autonomy

- not all CCK08 participants wanted the level of autonomy offered – the ‘expertise divide’
- it does require learners to embrace independent learning.
- autonomy is, paradoxically, jeopardised in the absence of constraints
- ‘An agent's authority over her actions is no guarantee that she has the power to determine how she exercises this authority’. (Buss, 2008)

Diversity

- Composition
  - Many types of entities

http://lemire.me/fr/abstracts/DIVERSITY2008.html

http://www.huffingtonpost.com/stephen-downes/democratizing-education_b_794925.html

- Intention
  - Different goals, desires (Mill)

- Perspective
  - Uniqueness of point of view, language

- Mathematics of diversity
  - Multiple inputs produce mesh networks

- Putnam, Florida, and the rest of it
- Homophily and associationism

http://www.downes.ca/post/53544

http://profesorbaker.wordpress.com/2011/01/30/homophily-and-heterophily-what-fires-together-wires-together-cck11/

- Teaching what we have in common instead of our differences? No

http://secondlanguagewriting.com/explorations/Archives/2007/August/TheDownsideofDiversity.html

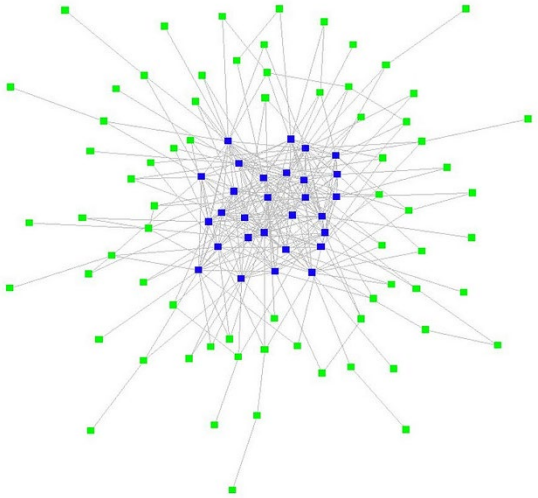
From the Study

- Diversity was ensured by the large numbers enrolled on CCK08 from all over the world.
- Different nationalities, cultures, ages and backgrounds were very much in evidence on the course.
- Diversity was also reflected in the learning preferences, individual needs and choices expressed by interview respondents.

- little support for the hugely diverse group of participants, some of whom did not necessarily have all the skills or disposition needed to learn successfully, or to become autonomous learners
- CCK08 was designed on the principles of an open network, with minimum instructor intervention. The complex diversity and minimal moderation were difficult to reconcile
- in a MOOC diversity needs to be managed, which paradoxically, adds another layer of constraint on autonomy.

Openness

- Open education
  - Open content, teaching, assessment
  - Stages of openness and terminal path



http://www.downes.ca/presentation/271

http://www.flickr.com/photos/ross/2916958593/

- Open networks
  - Clustering instead of grouping

- Flow
  - Input, output, feedback
  - plasticity

- CCK08 was an open course: there were no entry requirements and
- it was free to any interested non-credit participant. Credit participants paid a fee.
- Numbers were not limited.

- assumption in the course was that participants would be willing or ready to give and receive information, knowledge, opinions and ideas; in other words to share freely.
- ‘Openness’ within the Open Source (OS) community is usually interpreted similarly: i.e. ‘free’, as in beer; ‘free’ as in liberty, or speech; and there is an additional sense of ‘free’ as in transparent, and therefore shared.

In CCK08 active participation and interaction was only sustained by a small percentage (14%) of the total number of participants. The remaining 86% had probably either dropped out of the course or were ‘lurking’. There are at least two possible explanations:

i) they were getting a free ride (free as in ‘beer’), or

ii) they were demonstrating ‘novice’ behaviour; many novices ‘lurk’ until they feel confident enough to expose their views in ‘public’ forums.

The differences in the responses of interview respondents suggested that there was no common understanding of openness as a characteristic of connectivism.

Open Educational Resources

- OERs enable people to pursue their own personal interests in their own way
- But, more importantly, OERs become the *medium of communication*
- We need to view OERs, not as resources created by publishers at great cost, but as created by learners to interact with each other
- The role of professionals and publishers becomes the production of ‘seed OERs’

Interactivity

- Influence vs emergence
  - Thought-bubbles – “we perceive wholes where there are only holes”

http://www.downes.ca/post/55001

http://connect.downes.ca/post/44222

- ‘Scope’ vs ‘Level’
  - http://www.downes.ca/post/42066

- Ontology of emergence
  - Ontological (real) vs perceptual (recognized)

- Connection to complexity & chaos

As commented by one of the instructors, ‘My main goal was to connect with other learners’. The other instructor puts it slightly differently:

- I don't consider either 'making connections' or 'theoretical conceptual framework' to be the essence of connectivism. As I have stated many times, knowledge is pattern recognition; learning is becoming able to recognize patterns. (CI)

In other words, connectivity is not an end, but a means: this shifts the gist of learning theory away from connectivity per se to pattern recognition.

Wide range of possible connections. As one participant noted,

- I connected through e-mail ….. a few times – back and forth (that was very good)……I connected to the course learners by texting on these live and audio/text streams. I responded to blogs – at least twenty posts in different CCK08 blogs from other students. I responded to many of the introductions in the Forum …..These nodes of connectivism were meaningful places for me, even if temporary connections only. (NCP)

Whilst connectedness was afforded by technology, it did not necessarily ensure interaction. As Siemens (2009c) says, 'The question for me is not 'how are people connected?' but rather 'what are the implications of people being connected in a certain way?' … Frequency of contact isn't that important to me'. There were some significant barriers to interaction and connectedness:

- Interaction was key to the experience for me…[I] would like to add that the two barriers to participation on the forums IMHO were X's appalling behaviour and XX's patronising and 'teachery' posts and actions ….. (who knows how many timid people or those whose first language is not English we lost). (NCP)

Other barriers to connectedness and interactivity:

- were the quality of personal connections (‘I was fed up with tittle tattle, bad behaviour, trolling … so did not need the connection socially’)
- levels of expertise. The expertise divide is critical in all online learning and can effectively undermine openness, connectedness and interactivity, e.g. ‘The reason I stopped is because I cannot understand the issues being discussed anymore’

- The more open the course, the more this becomes a dilemma for the course designers. These quotes reveal that the dynamics of connectivism are perceived as both enablers and inhibitors for learning in a massive open online course designed on the basis of these principles alone.

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