

MOOCS, OPENNESS AND CHANGING EDUCATOR PRACTICES: AN ACTIVITY THEORY CASE STUDY

Czerniewicz, L.;Walji, S.;Deacon, A.;Glover, M.;

;

© 2018, CZERNIEWICZ, L.



This work is licensed under the Creative Commons Attribution License (<https://creativecommons.org/licenses/by/4.0/legalcode>), which permits unrestricted use, distribution, and reproduction, provided the original work is properly credited.

Cette œuvre est mise à disposition selon les termes de la licence Creative Commons Attribution (<https://creativecommons.org/licenses/by/4.0/legalcode>), qui permet l'utilisation, la distribution et la reproduction sans restriction, pourvu que le mérite de la création originale soit adéquatement reconnu.

IDRC Grant/ Subvention du CRDI: 107311-001-Research into Open Educational Resources for Development

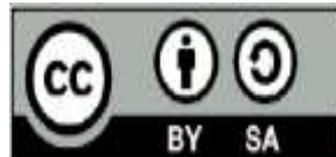
MOOCs, openness and changing educator practices: an Activity Theory case study

Laura Czerniewicz, Sukaina Walji
Andrew Deacon, Michael Glover

18 – 20 Nov, HELTASA, North-West University,
Michael.glover@uct.ac.za / @mjgresearch



Centre for
Innovation in
Learning and
Teaching



MOOC

=

Massive Open Online Course

- 6 week course
- Each week segmented
- Consists of (7-12min) videos, quizzes, articles, case studies, interviews, peer reviews, discussions
- No entry requirements
- Free
- Thousands of participants



UDACITY

Context

- Global South low producers of OER
 - Participate less in open learning and teaching
- Emerging culture of enabling openness at UCT, open agenda
 - Cape Town Open Declaration 2008; Berlin Declaration 2011; Open Scholarship; OERUCT; OpenUCT
- UCT MOOCs project (3 years, 12 MOOCs)
- Grantee of ROER4D Impact Study (Sub-project 10.3)

Links

UCT MOOCs: <http://www.cilt.uct.ac.za/cilt/moocs-project-uct>

ROER4D Sub-project 10.3: <http://roer4d.org/sp10-3-impact-of-oer-in-and-as-moocs-in-south-africa>

UCT MOOCs project



**Medicine and the Arts:
Humanising Healthcare**



What is a Mind?

One of first major MOOC initiatives in Africa

Partnership with FutureLearn and Coursera

12 MOOCs+ over 3 years

Intention for OER outputs of MOOC materials

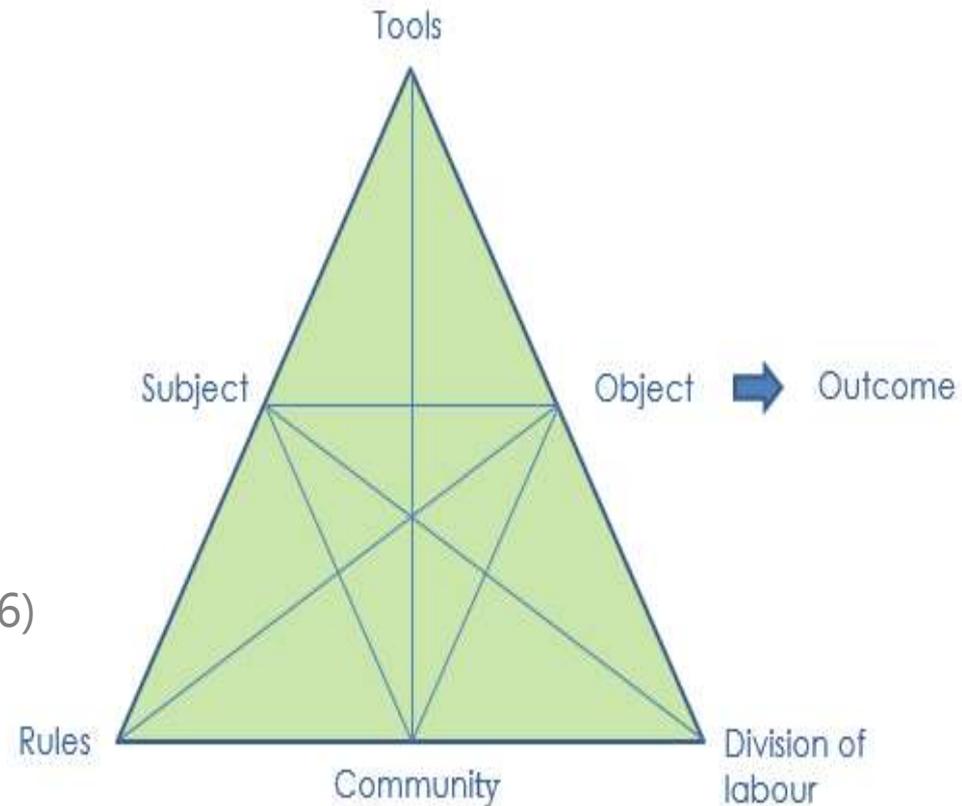
First 2 MOOCs on FutureLearn platform launched and currently re-running.

Question

How do educators' practices change when using (or not using) OER in and as a MOOC?

Conceptual framework

- Activity Theory (Engeström 1987)
 - 'Subjects' (lead educators) strive towards 'object' (developing new interdisciplinary field) in an *activity system*
 - tools, rules, community, division of labour, object
 - Activity systems are object-directed (activity is unit of analysis)
- Context is not just 'out there' (Nardi 1996)
 - Mental processes and acts inextricably entwined with context
- Locate educators' practices and perceptions in context of mediating artefacts



Conceptual framework

- Activity Theory as heuristic to thickly describe changes in educators' practices and perceptions
- Explanatory device to capture change and 'contradictions' as sites of change/adaptation/innovation
- Captures system in which educators strive for/consider their object
- Examine effect of adding two new mediating artefacts:
 - Creative Commons (CC) licenses
 - 'MOOC design'

Methodology

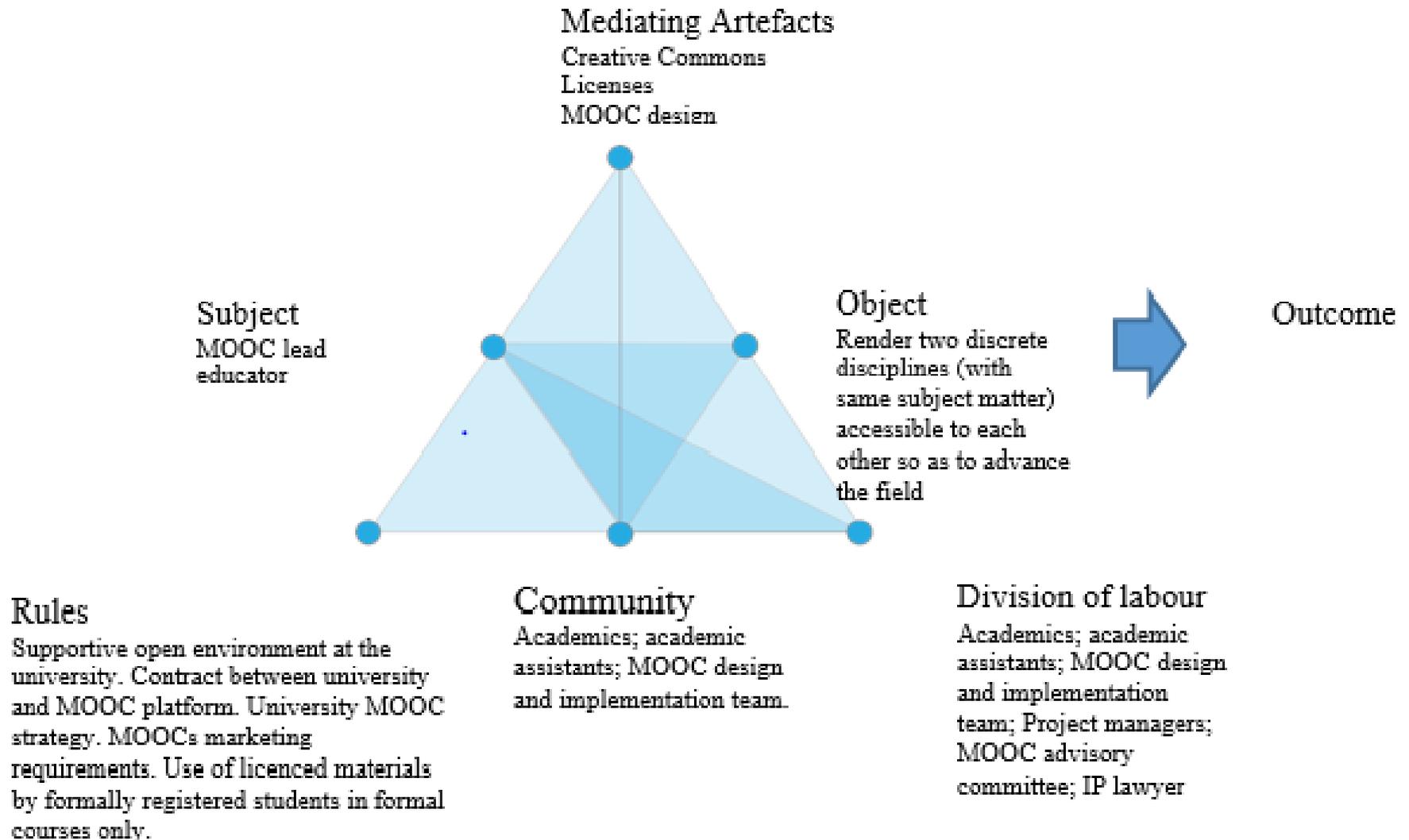
- Case study analysis
- Insert educator 'subjectivity' into analysis, via:
 - open-ended semi-structured interviews
 - post-MOOC reflection focus groups
- Theory framed analysis
- Code according to Activity Theory nodes, openness, emerging themes

Methodology

- Interviews *before* MOOC, immediately *after*, 6 months *later*
- Interviewees: MOOC lead educator, assistant and lead mentor, MOOC design team
- *Longitudinal* (change over time)
- For this analysis we examine one MOOC at two time intervals (before and immediately after)

Activity System 1

Figure 1: MOOC 2A (before MOOC is live)



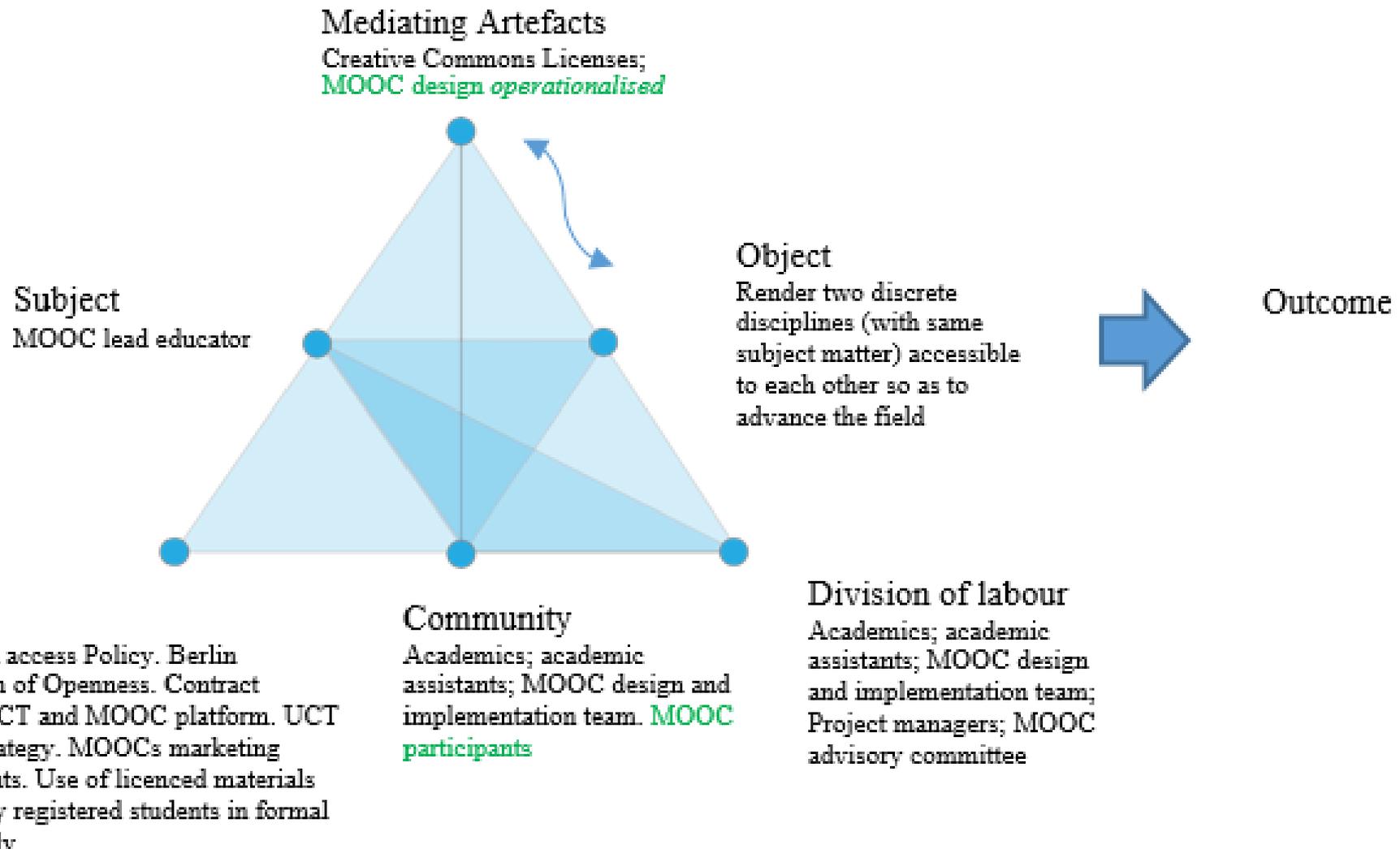
Object

Lead educator's object

“my pedagogical goal always is how do I speak to two different audiences at the same time. How do I make [field y] accessible to the [practitioners of field z], and how do I make [field z] accessible to [practitioners of field y]. I think that this MOOC is trying to do the same thing” (NT1).

Activity System 2

Figure 2: MOOC 2B (After MOOC is live)



Activity Systems 1 & 2

Two significant differences between the first and second activity systems

- 1) MOOC and its OER components are operationalised, i.e., the course has gone live and has run its six week duration
- 2) Thousands of new participants (MOOC learners) have entered the community node of the activity system

This is what has changed at the system level

Findings

Mediating artefact node dynamically influences subject (lead educator)'s striving toward object; we found that the educator:

- 1) Engaged with the role of OER and openness in MOOCs
- 2) Perceived affordances of the MOOC design
- 3) Reflected on educational practices in different contexts
- 4) Contradiction, MOOC design and object

Affordances of the MOOC 1

Reduces barriers, access, reach

- “reduces geographic and economic impediments to access” (NT1)
- University access for those who cannot study (NT1)
- Accommodate those who wish to study-part and work (BE1)
- “in general, that you can learn a lot of different subjects. You can increase your knowledge about something without having to commit three years to a degree to learn about it” (BE1)

Affordances of the MOOC 1

MOOC as flipped-classroom-and-multimodal-textbook

- MOOC as “supplemental” (NT1)
- “readings and additional materials” can be “immediately accessible” for the interested learner:
“you can build all that sort of stuff in [i.e. links to articles, videos, case studies, interviews, learning objects]”(NT1)
- “You can see little case studies...read selected publications”, the lead educator reasoned, “and you could never do that as a mere human being” (NT1)

Affordances of the MOOC 1

Teaching efficiencies

- “The things that can be done en masse in a lecture theatre can be better done en masse online, and then the sort of thing that can't be done en masse or online... can be done person to person. It frees up for that sort of tutorial teaching where you really can monitor the individual” (NT1)
- “I've got to repeat the same lecture to 300 more students because we can't fit 600 into one lecture theatre. There's no reason why that whole lecture couldn't be done as a MOOC, for example” (NT1)

Instructivist transmission pedagogy , flipped classroom aspect

No reference to interactive, engagement aspect

Affordances of the MOOC 1

Design

- “I like the fact that people can just use it however they like” (NT1)
- “you can do it at your own pace” (BE1)
- “You can sort of guide them through the complexity so that it's not completely overwhelming” (NT1)
- “you have a platform from which you can gradually seduce people into learning the technical complexities” (NT1)

Activity Systems 1 & 2

Two significant differences between the first and second activity systems

- 1) MOOC and its OER components are operationalised, i.e., the course has gone live and has run its six week duration
- 2) Thousands of new participants (MOOC learners) have entered the community node of the activity system

Affordances of the MOOC 2

Reach, scope, access

- “you can teach a much larger number of people...you can teach them remotely” (NT2)
- “the geographical spread was remarkable, so that is the obvious advantage. *It is the whole reason of MOOCs* and that’s just manifestly patently obviously unequivocally a good thing” (NT2)

Perceives an ‘open’ aspect of the MOOC as central

Affordances of the MOOC 2

MOOC affordances and pedagogical aim

- “the reason you teach, is that you try and actually get information into people’s heads, so the more people that get that information, the better” (NT2)
- “The more you have something worthwhile to say, the more people who hear you saying it, the better. So you influence the field more, you get known better. There is no disadvantage” (NT2)

Teaching generally, influence the field

Affordances of the MOOC 2

MOOC affordances and pedagogical aim

- “By reducing the barriers to accessibility...you have a greater chance of being able to get your point across and *get yourself known*... in an obscure university and in an obscure country teaching to an obscure little group of students, you got less chance of *getting ahead*” (NT2)
- “UCT as much as we are proud of it, it is really not the centre of the academic world, so if you can have the things you saying over here *broadcast democratically on an even sort of playing field* with your colleagues at Yale and Cambridge, we have more to gain” (NT2)

Affordances of the MOOC 2

Interaction and engagement

- “I hadn’t realised that there was that much inter-action between the institution and the learners....you can interact with them in a kind of a normal to and fro that you expect would be not possible in a remote format dealing with that many students” (NT2)
- “[T]here are more things available [in the MOOC] than I had realised...I saw that they really do have a very lively personal interaction with students” (NT2)

indicative of shifting from an instructivist view of the MOOC towards seeing it as enabling a more interactive and engaged pedagogy

Affordances of the MOOC 2

- “there would be a lot of discussions, and then people would go research whatever was discussed. They would research what was presented, or go find extra links. Like, a lot of the people shared other links, other articles” (BE2)
- “a springboard for further discussion and engagement” (BE2)

Co-learning, learners can switch to fellow teacher

Affordances of the MOOC 2

Teaching efficiencies

- “Now that I know how much more you can do with that format, I think unequivocally I think that we should be using it. I would love to use it for UCT teaching alone, when it comes to large classes”
- MS: “I teach more or less the same thing every year to the first year students, more or less the same thing to the Honours students every year and if you consider all the add-ons, especially with the larger classes, *all the things that you can do with the MOOCs that you can't do with a large sea of faces sitting there*, why go through it every year the same old course to the same old mass of people. You know to do it once on a MOOCs and then you can at least run it for five years until the field has moved on sufficiently for you to need to update the lectures”

Perceived role of openness 1

Reach, access

- “if people then video what you are saying and then they distribute that or use it, it’s just more bang for your buck” (NT1)
- “I think that there’s just been a dawning realisation that...the ownership of this intellectual property is like antithetical to what we are trying to do. We are not trying to own ideas, we are trying to disseminate ideas” (NT1)
- “once the material is there, once it's open access, you can multiply that effect. I mean why would one want to hold onto knowledge? The whole thing is to... professors must profess” (NT1)

Perceived role of openness 1

Concerns about 'openness'

- “[Y]ou give a lecture and you give permission for it to be filmed. It's all over the place. You can't then regulate or control how people are going to use it. So taking little bits and pieces out of context and using it for all sorts of purposes, good and bad, you've got no control over it anyway. So I don't think that the MOOCs change that” (NT1)
- “[O]nce it [a piece of writing] is in print, technically you don't have control over it. *Even if in law you do*, but from an ethical point of view you don't” (NT1)

Perceived role of openness 2

- “you don’t want to limit the number of people who are allowed to hear your pearls, so the more available and accessible and permanently available and propagatable...the better. It does not require more effort from me” (NT2)
- “There are things that I am actually planning to do now, because of the MOOCs experience I had, which is to replace many of those sorts of things with on my own professional society, I belong to something called the [xyz] Society. I want to put stuff on their website of this kind to relieve myself of travel obligations” (NT2)

Reflection on educational practices 1

- “you can't as easily monitor... the student” (NT1)
- “[What] I did learn is talking... is trying to convey – this I've never done before – trying to convey really complicated material in seven minute chunks. That's something. And it can be done.” (NT1)

Reflection on educational practices 2

- "I am sure all concerned would rather just watch it on the computer. Why come to campus at 8 am to sit in a class of 300 plus students listening to some dot down there lecturing with not great acoustics and not great technology" (NT2)

Three goals at once:

- 1) teach UCT students more effectively
- 2) Promote and influence field
- 3) Even the playing field

Reflection on educational practices 2

MOOC design mediation

"[Y]ou cannot waffle and fudge to an audience that big, that diverse...in such a short space of time. You have to be succinct, to the point, which means you have to have clarity of thought, which means you have to know what you are trying to say, which means you have to know your field. There is a lot that you can disguise or camouflage with waffle" (NT2)

Contradictions 1

Primary contradiction

Mediating artefact (MOOC design) and object

Non-enrolled learners can't access copyright material

"When I want to use my material and I have to get permission from the publisher it irritates me... it was my article, why do I have to get permission to use it?" (NT1)

"it would be nice to include more things [in the MOOC] but then we're constrained by... licensing or copyright issues" (BE1)

Contradictions 2

Object and MOOC design

Afterlife reusability

“now we looking into editing, seeing what we can edit out. It is possible not to re-do some of those things. I would like to use them and that’s an impediment” (NT2)

Concluding remarks

Activity theory useful conceptual framework for tracking educator practices in “authentic contexts” (Porter 2013)

AT enabled thick description of educator’s changing perceptions of

- Affordances of the MOOC
- The role of Openness

Allows us to track educators’ reconceptualisation of face-to-face teaching and intent to change practices

Locate contradictions as sites of potential change/innovation

Changed practice: Lead educator has put in proposal for another MOOC

References

- Barab, S. A., Barnett, M., Yamagata-Lynch, L., Squire, K., & Keating, T. (2002). Using activity theory to understand the systemic tensions characterizing a technology-rich introductory astronomy course. *Mind, Culture, and Activity*, 9(2), 76-107.
- Beetham, H., Falconer, I., McGill, L., & Littlejohn, A. (2012). JISC open practices: Briefing paper.
- Dippe, G. (2006). The missing teacher: Contradictions and conflicts in the experience of online learners. In Fifth International Conference on Networked Learning 2006 (pp. 8-pages).
- Engeström Y 1987. Learning by expanding: An activity-theoretic approach to developmental research. Helsinki: Orienta-Konsultit Oy.
- Hardman, J. (2005). An exploratory case study of computer use in a primary school mathematics classroom: new technology, new pedagogy?: research: information and communication technologies. *Perspectives in Education: Research on ICTs and Education in South Africa: Special Issue 4*, 23, p-99.
- Murphy, E., & Manzanares, M. A. R. (2008). Contradictions between the virtual and physical high school classroom: A third-generation Activity Theory perspective. *British Journal of Educational Technology*, 39(6), 1061-1072.
- Murphy, E. & Rodriguez-Manzanares, M. (2014). Activity Theory perspectives on technology in higher education. Hershey, Pennsylvania: IGI Global.
- Nardi, B. A. (1996). Studying context: A comparison of activity theory, situated action models, and distributed cognition. *Context and consciousness: Activity theory and human-computer interaction*, 69-102.
- Nelson, C. P., & Kim, M. K. (2001). Contradictions, Appropriation, and Transformation: An Activity Theory Approach to L2 Writing and Classroom Practices. *Texas papers in foreign language education*, 6(1), 37-62
- Peruski, L., & Mishra, P. (2004). Webs of Activity in Online Course Design and Teaching. *ALT-J: Research in Learning Technology*, 12(1), 37-49.
- Porter, D. A. (2013). Exploring the practices of educators using open educational resources (OER) in the British Columbia higher education system (Doctoral dissertation, Education: Faculty of Education).