Using actor-network theory (ANT) as a lens to explore lecture capture practices in and across spatial (re)configurations [1661]

Karl Luke | Cardiff University
@karl_luke | #altc | #altc1661
Outline

- Theoretical positioning
- Methodology
- Findings
- Discussion
(Re)Considering Spatiality

- Practices emulate from different spatiotemporal configurations, with different goals and ontologies attached (Mol 2002)
  - Practices can expand and flow across spaces, distances and/or time (Fenwick & Edwards 2010, McGregor 2004, Murdoch 1998)
- The materiality of the lecture capture artefact:
  - enrols knowledge and discourses from distant space-times (Burnett 2011)
  - engages in spatiotemporal compression
  - constructs contingent and active spaces

Dissociation
- This means that combustion reactions do not go to completion due to the vibration of recently-formed molecules.
- This causes many of the reactions we have talked about up to this point to become reversible.
ANT 101

• Sociomaterial approaches
• Empirically grounded cases
• *Heterogeneous actors* - objects of all kinds - and seeks to de-centre the human and the social in educational issues
• **Actors / Actants**
  • “entities that do things” (Latour 1992 p.241)

• **Generalised symmetry** (Callon 1986) between humans and non-humans
  • e.g. tools, programmes, documents, objects, machinery and technologies
  • all entities to be given equal analytical consideration; the human is not assumed to have a privileged position

CC BY 2.0 "Lego Weekend, Holt Hall" by Dave Catchpole https://flic.kr/p/abhC1E
Relationality/Associations

• Actors exist within a sociomaterial *assemblage (or network)* of materials
  • linked to perform a particular function (Callon 1986, Latour 2005)

• **Relationalism** between actors form instances of (momentary) stability

CC BY 2.0 "netowrk" by Simon Cockell https://flic.kr/p/5XhZ1u
ANT and Spatiality

• Spatiality involves **different kinds of space, place and time**, resulting from actor interactions and relations (McGregor 2004, Murdoch 1998)

• Space is **contingent, active** and undergoing continual **(re)constitution** (Massey 2005)
Research design

• ‘Follow the actor’ (Latour 2005).
• *Multi-sited ethnography*
• On-screen activities of participants alongside recordings of real-time interactions (Geisler & Slattery 2007)
• Tracing and mapping (*visual network analysis*)
• Multimodal analysis of student produced data (Kress 2014)
Structuring templates

A comparison of the space prior to refurbishment and after completion. Photographs illustrate that the key characteristics associated with the lecture theatre - the fixed tiered seating and front stage area - were maintained.
Lecturing as a network effect

• Discourses and **pedagogical practices** (i.e. didacticism and lecturing) are **relational effects** within the **assemblage** of the lecture environment
  
  - *Didactical configuration for didactical performance* (Drijvers et al 2010)
  
  • Actors amplify, frame and solidify the practice of didactic teaching
Spatiality and the lecture capture artefact

- The computer screen enacts multifunctional spatiality (Decuypere and Simons 2016)
- Lecture capture creates a rich, multimodal learning space by connecting various actors, unconstrained by time or place (Middleton 2015)
- The capture artefact engages in spatiotemporal compression (Nespor 2003)
Spatiotemporal (re)configurations

• Every lecture capture playback will offer a **unique sociomaterial construction**, across spatiotemporal dimensions (Mol & Law 1994, Thompson 2012)
  • Meshing of physical and virtual spaces mediated by a range of actors
• The lecturer is now competing within new actor-network configurations
  • **Displacement** of spatial and regional presence weakens the academic’s position as actors with authority (Mifsud 2014, Sørensen 2009)

“I combine it [watching lecture capture videos] with going to a café, going to a library or to my place to study. What I don’t want it to be is just go to café for study, or just go to the library. I need to change the environment because I get bored.”
Pre-constructed study routines
Multi-spatial practices and stability

• Participants negotiated study practices within the spatiality of familiar environments
• This practice of note-talking can be viewed in terms of a complex sociomaterial arrangement, involving hybrid spaces and many interacting actors

“I had the printed notes from the lectures with me and some question sheets. I had other notes which, like in this book here, are my written notes. I had some old past papers as well...I've got a big desk ... I’ve got a nice office chair. And I also had my rulers and coloured pens and pencil and stuff like that which I just keep sort of on the desk so when, well you can see the notes here, that helps me remember things.”
Negotiating multi-spatial practices

• The **play/pause button** functions as a ‘valve’ and “*configures spaces for pedagogic purposes*” (Thompson 2012 p.101)
  
  • Affords switching between different actors
  • i.e electronic documents, webpages, physical notebooks and handouts
  • Such material practices would fall apart if the button itself was absent

• However...the pause button serves conflicting qualities
  • Not harmonious with study practices (i.e. social networking / checking mobile phone)
I stayed within the lecture video. I pause. Then I look to exams to know if that topic was in the exams... I started looking at each year [past exam papers posted in VLE]... I pause as I don’t like voice or talking if I’m not actually watching. If I’m not paying attention then I’m trying to listen and then if I end up doing something else then I’m not focussed.

• Issues with multitasking?
• Efficient learning requires (momentary) stability and predictability (Thompson 2012)?
• What can we do to support such activities?
Conclusion

• Exploring sociomaterial relations commands attention to how space and time are (re)configured (McGregor 2004, Murdoch 1998, Nespor 1994).

• Individualised study practices materialised within emergent connections
  • ad-hoc use of available objects and artefacts, across various physical and virtual spaces

• Practices are held together by innocuous but powerful actors (i.e. the play/pause button)

• Reveals the messy complexities involved in enacting learning practices
Discussion

• “Matter matters”

• If used pragmatically, ANT can provide nuanced insights for the development and deployment of learning technologies and learning spaces (Johri 2011)

• Visualisation mapping may provide perspectives into opportunities for imagining and enacting alternatives to teaching and learning

• Opens up the opportunity to attend to debates concerning the material organisation of spaces, which can be an important focus for future research


