Teachers’ narrative ecologies of professional development with digital technologies

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What, how and why?

Narrative ecology approach developed out of researching teachers’ professional identities with digital technologies.

• What, conceptually is narrative ecology
• Methodological concerns: epistemological and ontological
• Pedagogical and technological concerns
• What does narrative ecology look like in practice and how can it ‘talk back’ to techno-centric initiatives?
Conceptually, what is narrative ecology?

*Redwood Rings in Muir Woods*

By Kristen Ortwerth-Jewell, Flickr [https://www.flickr.com/photos/kro-media/](https://www.flickr.com/photos/kro-media/)
The Sedgwick Museum of Earth Sciences, Cambridge. ‘In the end then, the narrative and the paradigmatic come to live side by side’ (Bruner, 1986, p.43).
From objects of natural sciences to subjects of social sciences

Bruner’s modes of thought (1990):

• Paradigmatic cognition – involving the categorisation of events, things e.g. schematic knowledge that establishes connections between categories and concepts (door, window, room)

• Narrative cognition – ‘deals with the vicissitudes of human intentions’ (Bruner, 1986, p.16). And starts from the premise that human action is ‘the outcome of interaction between a person’s previous learning and experiences’ (Goodson, 2010, p.8).
Tools of the social sciences

“The most important species in an ecosystem are called keystone species, which exert some kind of controlling influence over the system.” (Zhao & Frank, 2003)
How can we research others’ professional identities if we acknowledge they are in a constant state of becoming?

The tree imposes the verb “to be,” but the fabric of the rhizome is the conjunction, “and….and….and…” This conjunction carries enough force to shake and uproot the verb “to be.” Where are you going? Where are you coming from? What are you heading for? These are totally useless questions.

(Deleuze and Guattari, 1988, p. 26)
Intentionality

Have you heard the one about the ornithologist and meteorologist who went for a walk in the woods? (Bonnie Nardi, 1986)
Presumptions and dangers - all insiders?

• It is presumptuous and dangerous precisely because we are never analyzing and interpreting the unmediated or primordial; our listening presence as a researcher is as much an act of moulding as being moulded in the moment, however much we vacillate on our capacity as researchers to ‘bracket out’ our own preconceptions (Marton, 1997; Schostak, 2006).

• It seems too often research seeks prematurely to identify patterns of human activity as proxies for some deeper truth or understanding, and, in the process, potentially ignores or is not sensitised to the existence of plural perspectives and contextual equivocality (Sanger, 1996).
Wertsch (1985) highlights Vygotsky’s perspective on language as a bridge between the inter-psychological and intra-psychological worlds of the individual. Accordingly, the inter-psychological and intra-psychological are inseparable and only through understanding the ‘ties as well as the genetic transitions’ between these can one ‘hope to build an adequate account of higher mental functioning’ (Wertsch, 1985: 94).
What does it take for a teacher to become at one with pedagogy and technology like an accomplished musician is at one with their music and their instrument?

Geoff Simkins: Jazz Saxophonist
Didactic Analysis

Loveless and Williams state (2013, p.158); ‘being ready, willing and able to teach, calls for a reading of the world in which content, context and tools can be orchestrated with skill and purpose.’ The European tradition (Klafki, 1958 and 2000,np) of didactic analysis requires the teacher not just to understand the what (content) and the how (pedagogy) but also the why ‘with its attendant past and the anticipated future’. The pedagogical appropriation of new technologies is a complex process, predicated on a number of contextual and autobiographical factors.

Klafki (1958) pedagogy as 'a selection made in a particular human, historical situation and with specific groups of children in mind.'

Also Selwyn and Facer's call for more 'state-of-the-actual' analysis of TEL (2013)
Narrative ecology framework for Analysis

KEY - Presence of Mediating Factors
1. Primary mediating factors
2. Secondary/Latent mediating factors

OBJECT
Development of pedagogical practice

KEYSTONE
Language Action Pedagogic Form
1. Attitudes values & beliefs
2. Affordances of e-learning tools
3. Policy/ Cultural discourse
4. Subject knowledge
5. Learners' needs

MARIO
Contextual

MICRO ECOLOGY
Reflection in/on action
Prior experience of learning tools

SUBJECT
Student teacher

MACRO
Theory

KEY - Effect of Mediating Factors
Resonance
Dissonance
iPads in Education; from technological to pedagogical tool

• What are the perceived enablers and constraints on the pedagogical appropriation of mobile technologies in the case study contexts?
• How are pedagogical practices adapted through the use of mobile technologies?
• How do practitioners perceive the significance of any adaptations to their pedagogical practice?
• What is the perceived usefulness of the narrative ecology framework for developing pedagogical practice with new technologies (iPads)?
2 Phases

1. Mobile learning symposium (University)
2. In context narrative interviews (School/University)

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Talking back through narrative portrayal

**Narrative case: Sam**
Sam is a Science teacher in a large secondary school in England (11-16 year olds). At the time of this research she was in her seventh year as a qualified teacher and as well as her role in the science department she had a role as a ‘digital leader’, providing support to other colleagues with the integration of digital technologies into their pedagogical practice. The school has recently adopted a 1:1 iPad policy providing all students with iPads through a scheme in which parents can purchase an iPad for their child at various subsidised levels depending on financial circumstances. There are also options provided for those families just above the Free School Meal entitlement threshold who are unable to afford to buy a device. The school looked into various strategies such as Bring Your Own Device (BYOD) before adopting their approach and Sam was involved in this process from early on.
Story the data

Using the data extracts handout can/how would you locate them in a narrative ecology?
Discussion

Questions?
Thank you for listening!

Handout:


Forthcoming publications, see ResearchGate profile at: https://www.researchgate.net/profile/Keith_Turvey