

The role of human actors in legitimising informal networked learning of academic digital practice

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Abstract

Ideas from phenomenography inform this study to investigate variation in staff experiences of a decision to introduce digitally shared academic supervision record keeping in a university-based School of Healthcare Sciences in the United Kingdom. At the time, the school's assessment and feedback strategy entitled students to individual formative supervision feedback on all draft essays before submitting them for summative assessment. Prior to the move to a shared digital record, records of supervisory events were stored in individual email inboxes or networked file-store, as well as on paper that was sometimes held in more than one location for the same student. A blogging platform within the university's virtual learning environment was used because, while it allowed students to only view their own records, the whole academic marking team could access any of the students' records.

Lave and Wenger's 'Legitimate Peripheral Participation' provides a theoretical lens for analysis of data collected in interviews with four staff who were selected to represent variations between and within the 'old-timers' and 'new-comers'. The phenomenographic 'outcome space' table is eschewed in favour of a narrative presentation of data that seeks to provide a 'direct encounter' with the phenomena of interest. As such, it represents a case study of informal networked learning, by those on the journey of 'newcomers' from the periphery to full participation and those who guide them. This analysis is challenged by the data, given the varied ways in which staff approached the change to digitally shared supervision record keeping and how the shared records were or were not taken up as a resource to help new staff learn the practice of academic supervision. Staff who had recently moved into academic roles from senior positions in clinical practice experienced dissonance when adjusting to a more permissive information security regime. The study offers insights into the cultural conceptual 'baggage' that can inhibit productive networked learning and the importance of human actors to encourage it and overcome these barriers. The role of students in challenging recalcitrant 'old-timers' into adopting the new digital practice is noted. These actors are held to speak back to theories within networked learning, actor-network theory and Lave and Wenger's communities of practice.

The work was undertaken in part fulfilment of a doctorate in e-Research and Technology-Enhanced Learning at Lancaster University.

Keywords

innovation, organisational change, communities of practice, legitimate peripheral participation, phenomenography, networked learning, digital practice, digital scholarship, informal learning

Introduction

Couros' (2006) vision for expanding professionalism with the 'digital' is catching on (Cooper & Craig, 2013; Costa, 2011; Fullan, 2013; Sheninger, 2014) but how will the 'digital scholar' (Weller, 2011) come about? Fullan advocates 'flipped' pedagogy, where "students will be great technology teachers for the adults" (2013, p. 69). Does this assume too much of students' capabilities and staff receptivity? The digital native/immigrant dichotomy has been debunked (C. Jones, Ramanau, Cross, & Healing, 2010), and New Literacy studies warn that classrooms are not conducive places per se to seismic changes in teachers' mind-sets (Lankshear & Knobel, 2006; Leander, 2006). Such change seems less credible when required "en masse" (Fullan, 2013, p. 68). Directed at higher education, Parchoma's (2006) analysis is quite gloomy about the capacity of traditional institutions to respond to e-learning as 'disruptive technology'. Given the familiar depiction of universities as 'change averse' (eg., Hopkinson & James, 2013) universities' continued survival to date could be surprising.

Goodyear (1999), over a decade ago, saw through such arguments, contesting that universities have made large adjustments; such as in teaching methods deployed and in the embracing of information technology (IT), the latter taking a central place in order to manage the 'numbers game' that learning and teaching in higher education became (Steeles, Goodyear, & Mellar, 1994).

This paper borrows perspectives from phenomenography to interpret one such innovation, the introduction of a system of shared record-keeping for undergraduate academic supervision episodes in one United Kingdom university-based School of Healthcare Sciences. Within this school, the transition from paper-based supervision practices and records to digital communication and storage began just after the turn of the millennium. The move to online submission of summative assignments in 2006 further embedded digital practice within a core academic process. When the school was invited to provide degree-level training abroad in 2008, a method of shared record-keeping was required to assure the quality of supervision through mentorship of overseas tutors by UK-based academics. A blogging platform was selected because the permissions settings allowed students access to just their own record while staff could access all student records.

In the face of calls for systemic change (eg. Fullan, 2013) it would be easy to view a 'tweak' to record-keeping processes as mere tinkering. For those required to enact this 'tweak', affecting a core aspect of their role, the change takes on different proportions. Attempting to illuminate that difference, the aim of this study is, "not to find the singular essence, but the variation and the architecture of this variation in terms of the different aspects that define the phenomena." (Marton & Booth, 1997, p. 117).

According to Marton, phenomenography seeks to capture 'second-order perspectives', sidestepping the sometimes fraught "distinction between appearance and reality" (Marton, 1981, p. 179). The study therefore investigates staff experiences of engaging with digitally shared academic supervision record keeping (ASRK).

This line of inquiry picks up on Gherardi et al.'s call for further research into "the encounter of newcomers with the practices of communities" (1998, p. 293) through Lave and Wenger's concept of 'legitimate peripheral participation' (1991).

Methods

Semi-structured individual interviews were adopted to facilitate a naturalistic conversation. According to Trigwell (2006, p. 371), the phenomenographic interview should:

"...explore the interviewee's experience of the phenomenon in depth. This normally entails having a list of trigger questions that might, for example, focus on the background to the phenomenon, how the interviewee dealt with it, why he/she did it that way, what she/he was trying to achieve and what the outcome was."

The interview question schedule, appended to this paper, was "designed to encourage respondents to reflect on their own experience" (Entwistle, 1997, p. 129), mindful of "how sequence is consequential for what we say and do." (Silverman, 2013, p. 54) For example, questions about the wider personal implications of using what is essentially a blogging platform, within the university's virtual learning environment, for academic supervision were kept towards the end of the interview as the concepts of record-keeping and blogging are very different.

Four academic members of staff were recruited for interview, selected primarily to capture a variety of lengths of employment as lecturers, but also to gather data from 'old timers' and 'novices':

- Ash - around 20 years of continuous, and continuously enthusiastic, employment in the School.
- Daryl - has been a lecturer for 10 years. 'Technologically reluctant', keen educationalist.
- Cameron - with several years of clinical experience and less than a year in the School's employ, undertaking doctoral studies. Twitter fan.
- Jamie - has many years of clinical experience but, like Cameron, less than a year as a lecturer. No slouch with digital record-keeping within a clinical environment.

The study received Lancaster University ethical approval as 'low risk'. Each participant gave written consent to the interview being recorded on the basis that their identities would be anonymised. Names and any other means of identifying the individuals have been changed. At interview, two digital devices were used to assure

resilience. Once the better quality recording file of the two had been saved onto secure University networked filestore, both 'local' copies were deleted.

This study seeks to remain true to phenomenography's central aim, that of depicting "qualitative variation in the meaning" (Ashwin, Abbas, & McLean, 2014, p. 223), but to do so in a way that will "least hurtfully represent what we find" (Simons, 1996 n.p.). This commitment guided decisions around methods of analysis and reporting, areas within the bounds of variance in accepted practice described by Åkerlind (2012).

Entwhistle (1997) notes that not all so-called phenomenographic studies retain the vivid contextualisation of its pioneers. Phenomenography accepts that 'second order' perspectives are a reasonably authentic source of data (Marton, 1981, p. 178). However, phenomenographic methods, with heavy reliance on coding transcribed interviews, introduces a mediating layer of text that distances the researcher one further qualitative step away from the audio recording, itself still not the actual interview as experienced in that hour shared by the researcher and participant. Readers and analysts of transcripts are attempting to "collaborate with the past", a process fraught with interpretive risk (Inman, 2003). In order to bring the researcher closer to the original interview, made possible by their small numbers, familiarisation (Dahlgren & Fallsberg, 1991) centred initially upon repeated listening to recordings through an MP3 player. The data was secured by the device being kept upon the researcher's person at all times and the recordings deleted once this phase was complete. Verbatim transcriptions were made to further enable familiarisation. A slightly reduced version of the Jeffersonian notation system (Heritage, n.d.) and F4 software promoted good fidelity with the recordings: time-stamped transcripts were imported into ATLAS.ti enabling audio recording playback as the respective piece of transcript was being read for coding. This refreshed the researcher's memory of the context of what was being said and the way it was expressed. In deference to concerns highlighted by Cohen, Manion and Morrison (2011), such as that the "software drives the analysis rather than vice versa" (p545), ATLAS.ti coding and ensuing use enabled greater control over iterative passes over and management of the data. Analysis was not delegated to the software but took place in the researcher's mind, through reviewing and coding the interviews, in the attempt to identify variations in accounts of ASRK and the "logical relations between each of the categories of description" (Ashwin et al., 2014, p. 223). Given the small-scale sample, the usual 'outcome space' with tables depicting categories and relationships is eschewed in favour of a more narrative-style presentation to provide readers with a 'direct encounter' with the phenomena (Simons, 1996).

Digital Academic Supervision Record Keeping

Ash has always been keen and quick to see the benefits of technologies to students. The following personal reasons may explain that:

I've got... er, I'm not sure what you label it, learning difficulties, in terms of spelling, um and that, I I was very grateful when computers first came out because most of them had a spellchecking facility on, and it saved that kind of embarrassment really of of that. So that was quite an advantage of computerised system...

I, that time when we had our children, erm, and they were growing up in a digital age so I felt that it was something really important that I understood so I could help support guide and possibly monitor u(h)m what was going on with them.

In contrast, Daryl self identifies as 'old-fashioned':

Daryl: I do use my smartphone a lot at home... But actually, I spend so much time in front of the computer in work that I'd rather not spend that time in front of the computer out of work... I have used (.2) Hotmail... I'd like to still send postcards

Interviewer: (h) yeah

Daryl: postcards are great - aren't they?

Interviewer: Mhm (agreeing)

Daryl: "wish you were here, Love Daryl", that's it(h)!

Interviewer: "food rubbish..."

Daryl: yeah(h) [weather good

Interviewer: [weather worse...

Daryl: And if I really want to speak to somebody or find out what they've been doing I will pick up the phone or go and see them↑(.3) That's my justification for not using modern technology↓

Unsurprisingly therefore, while Ash had given a demonstration of digital ASRK at a national conference, Daryl,

... kind of, just had my head in the sand a little bit... hoping that it would go away, you know? It won't work, we'll be back to the old system soon. And there won't have been any point in trying it

Interviewer: Has that strategy worked for you in other things?

Daryl: (.2) no. [(laughs)] and I always give it a go(h) ...

Daryl: I hate having to learn anything new (.1) technologically. It puts the fear into me. And so, I avoided using ASRK for as long as I possibly could until a student said to me, "If we've got to use it, you've got to use it". And at that point, I thought, "I've got to use it".

Ash was far from immune from this kind of fear, "the devil's in the detail" and the details were in the manual: locating something to "flick through" was a key moment. As was the encounter with reassuring IT staff when personal strategies of "working things out" alone broke down. But reluctance like Daryl's frustrated Ash:

hmm↓ I think (exhales). I I suppose one of the difficulties I have encountered, ... is inconsistencies in practice which is quite difficult when... um... Some... Certainly some lecturers are very reluctant, or were very reluctant to use blogs so you've still got a lot of emails going on, which did cause problems for students in my experience of the modules I was managing etc= I was trying to ensure that all students used the system, and then it was difficult because colleagues maybe weren't, for, for whatever reason. erm, so that that was, that was a bit problematic I think

From experience of demonstrating digital ASRK to students, Ash was certain that this was just like any other skill requiring supported initiation:

you can demonstrate it erm, on a, on a projector, in a, in a lecture theatre, but, to me it's it's it's a skill they need to go away and practice it. And they'll forget that demonstration, in fact, probably they only take in about, I dunno, probably about 20-30% of it↑

Cameron and Jamie are both new to the supervisor role but far from new to record-keeping. Indeed:

Cameron: I think especially coming from a clinical background... I think it's, uh it's sort of drummed into you, that if it's not documented, it's not done.

Neither are they new to digital record-keeping:

Jamie: I'm quite used to using electronic record-keeping, because that's what we've been doing for the last, probably three four years and, even more so now, the paper record keeping is deter=ih i i is becoming less and less... very very minimal erm, paper records now

In spite of this, both floundered. Or perhaps, because of this...

Jamie: I think, for me, erm, this has probably been the most difficult thing for me to get to grips with is that the role of academic supervision, and also maintaining those records. I think record-keeping, from a clinical perspective is ingrained into you and, that's a really important, um, part of your role, and something that I do or have done a lot with, um, sort of more junior members of staff, monitoring their record-keeping, those sorts of things so, coming in here, it was something that I really, um, worried about, quite a lot, "how do I keep those records, how do I keep them safe? Where do I keep them?"

This substantiated Ash's suspicion that supervision did not receive much attention during "teacher training". Both newcomers had attended a computer room training session as part of induction to the school, where shared ASRK was explained alongside hands-on practice of the system. Jamie, with all their experience, seemed quite embarrassed at how impossible it had seemed to learn to use digital ASRK compared with how easy they now found it.

Jamie: [er, no, [it was completely ridiculous

Interviewer: [right (.2) ok↑ (laughs)

Jamie: but yes (laughs) but that's just how, y'know, I (.2) um (.1) I think that's that was coloured by my own perception of using technology cus I think, you know, you think, "I cant use it, I dont use techn"=but of course, you do, use it, and you can use it all the time...

But the passage of time between the classroom training and using the system in earnest, the knowledge and skills gained soon evaporated and both fell back on their own initiative to develop confidence with the system, including accessing the assistance of co-located peers:

Cameron: as I sat with a colleague one day=is maybe my first one that I was giving the feedback on because my confidence wasnt great and they said to me, um, yeah, I said, am I doing this, I'm doing this right I'm doing that. Un, I ah suppose that was their opinion, and they said to me, "or yeah, it's a good system, I'm alright with this. Y'know, I'm quite confident with it already", un, they d-double-checked un....

Mentors like Ash were quick to see the potential of shared ASRK in general, adding a new level of safety to the supervision process and this was emphasised to newcomers:

Ash: when we're talking about supervision of work, supervision and marking to me are probably the most important things about our job in terms of students. So I, I've kind of showed them [the digital ASRK], got them working on it. And there hasn't been one person that I've mentored who has had a problem with it in the first place and who hasn't been positive about it I won't supervise students any other way than [the digital ASRK] now purely because it's safe. um, hopefully I will win the lottery next week and then I won't be here again and someone will have to pick up my work. So I I will not use individual emails for supervision and things like that, purely because of that. um, so they've had access to all my supervision.

Even Daryl, once entirely dismissive, now appreciated that:

for new members of staff, who've come and joined a new module, you can advise them to go back and look at students work, and look at the feedback they've had. And, I think that's really beneficial actually in all honesty.

However, neither newcomers' mentors had provided this kind of induction to and legitimation of the use of digital ASRK as a learning tool. Jamie felt inhibited from accessing, what was to their mind, private records:

because you wouldnt go and look up other patient records if you were not involved in their care, because, that would not be accepted practice

Although clinical mentors would direct novices towards relevant patient case records they "would discourage from generally looking at records" (Jamie). Jamie therefore sought permission from academic staff to review the previous feedback they had given, all the while worrying that students should also be approached as it was also their work.

For Cameron, prior entries by experienced staff into the shared digital ASRK had been useful to guide the way an entry should be structured and worded, but it was only during the interview that it dawned on them to delve deeper, to learn from previous supervision practice as reified within annotated draft work:

Cameron: I dont feel inhibited because I dont think it's, for me it doesnt feel like ah, y'know, you're going through someone's knicker drawer essentially iss iss iss is just - that's a poorly word(h)ed sortuv-uh

Interviewer: not at all it's fascinating

Cameron: y'know it's um, yeah, I I think it's fine I think it's open, I'm happy to, to look ar it. But it's more from the fact maybe, I didnt feel that intuition, to go in there, if you like and see how it was done... but I think I will now. Yea(h)h!

Discussion

This section takes up the ‘lens’ of ‘legitimate peripheral participation’ to briefly discuss the relationships within the data above. In Gherardi et al.’s study, novices learned through an old-timer’s notebook which bore traces of the work they were learning (1998, p. 291). Gherardi et al. further note that an electronic system would have hidden these traces from view. But with this case of digital ASRK, automation potentially provided novices with direct access to authentic fully-formed entries created by experienced staff. Novices’ participation in this practice was in no way peripheral: some of the new-comers’ trepidation was attributable to being required to enter straight into supervision and ASRK with little preparation. With access to previous supervision records, their movement from the periphery was led through their own tentative initiative, which seems to resonate more with the concept of networked learning than ideas belonging to communities of practice (Chris Jones & Esnault, 2004). Infrastructure at the meso-level brought access to the shared record, however human agency was essential to unlock the potential of this for learning by new-comers. These were by no means new-comers to digital record-keeping, but the values brought across from other contexts distanced them from exploiting a ready resource for learning.

Mentors played a key role in opening up this potential resource, whether that was to extend a newcomer’s limited perception of what could be learned through shared ASRK in terms of how to do supervision, or helping to overcome reticence due to a strong ethic of privacy carried over from clinical practice. This sheds some light on the “ways in which the learning of experienced workers differs from that of newcomers”, i.e. complete novices (Fuller, Hodkinson, Hodkinson, & Unwin, 2005, p. 52). The ‘old timer’ participants actively encouraged new staff, ‘promoting connections’ to digital ASRK for growing into the role of supervisor, legitimising such use by them and both of the study’s ‘newcomer’ participants would have benefitted from that.

For the digitally recalcitrant ‘old timer’ Daryl, the overwhelming logic, especially the safety factor, of the shared record was not enough to induce participation, even of the most ‘peripheral’ kind. Staff could remain in their ‘silos of practice’ (Dinsmore, Cabanis-Brewin, Delisle, & Rowe, 2006), in spite of the opinions of their peers. It was a student who embarrassed Daryl into using the system, and it is unclear how theories of ‘legitimate peripheral participation’ would account for the significance of this type of influence. Furthermore, while Jones and Esnault (2004) profiled the online ‘animator’ role as vital to productive networked learning, in this case there were many animators who varied in their status and presence vis-a-vis the ‘learner’. Although Actor Network Theory has alerted us to the significance of non-human actors (Fox, 2002), this case highlights very human facets of learning in networks. As Chris Jones notes, “the tradition of networked learning emphasises the human element and argues that online materials are not sufficient in isolation.” (2015, p. 235)

Conclusion

Learning technology has, to put it mildly, a patchy track record of adoption. Technology evangelists may despair as another latest technological ‘irresistible force’ crumples against the ‘immovable object’ of Luddite academia (Cuban, 2001). This study supports the view that results would be less disappointing if more attention was “paid to textual practice around learning and less upon the technologies and their applications” (Lea & Jones, 2011, p. 377). We have known for a long time that ‘bolt-on’ is likely to ‘shiver-loose’ (McNaught & Kennedy, 2000). Zagal and Bruckman (2010) ponder just how to support Legitimate Peripheral Participation with wikis, while the nurse educators in this study, even the most technologically averse, became firm advocates of a system that firmly supported their needs for safety, and the personal and professional development of junior staff. This study notes the importance of human agency in overcoming conceptual barriers to productive networked learning, including through something akin to Fullan’s ‘flipped’ pedagogy (Fullan, 2013).

Further research may investigate how the move from email to blogs for academic supervision record keeping became something of a ‘bridgehead’ (Bonamy, Charlier, & Saunders, 2001) for extending participants’ digital practice in general.

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Appendix: Interview questions

- 1 Please could you briefly describe yourself and your role within the school?
- 2 How do you see academic supervision record keeping within the role or roles you have described?
- 3 Can you say how you dealt with it prior to academic supervision record keeping going into blogs?
- 4 What can you remember about the change between the two systems?
- 5 What helped or hindered you in the move between the two systems?
- 6 What essentially changed for you, if anything, as a result of moving academic supervision record keeping into blogs / ASRK?
- 7 From one angle, all we are talking about here is quite a small change in the way that one aspect, amongst many, of your role, changed: the way that academic supervision records are handled – so are there any wider effects of this change from your perspective? Try to think about this from different levels, personal through to that of the school.
- 8 Would you say that the change has been popular or unpopular amongst staff?
- 9 There is new strategy, but if ASRK ceased today, what would you miss?
- 10 Will there be any legacy?
- 11 What is your own experience of blogs apart from the academic supervision blogs?