Chapter overview

My thesis is about the co-evolution of the Internet and the educational system. It studies the co-construction of ‘personal information management’ as accounting practice in the ‘public cloud’, ‘digital educational governance’ and in ‘learning management systems’.

The project is based on a two week ethnography at a secondary school, studying the role of the Learning Management System (LMS) was in the co-ordination of care, and the valuation of ‘good pedagogues’, in a Norwegian secondary school.

I study the LMS as a hybrid system, or a boundary object. One that brings together computers, pedagogues, students, administrators, IT-personnel, School-owners and (other) bureaucrats.

Background

The LMS is as much a historical-conceptual construct as a technical object. That is, I approach my investigation of the LMS from the vantage point of Actor-Network Theory (ANT). I use the idea in my analysis as my investigation concerns itself with boundary work in the integration of IT-systems in the cloud.

This approach builds on an investigation I did a year prior to the ethnographic study, which resulted in an essay written for an Innovation studies course. I was already familiar with the LMS as a controversial and ‘fluid’ technology, and especially the issue of the ‘non-user’ within the context of pedagogic practice. I did not apply the concept of the non-user per se, as I was more concerned with applying the ‘technological innovation systems’ (TIS) approach. Yet, the issue of the non-user was one that was not resolved. The non-users were in many ways the students, and there were a clear separation of tasks in the work of the teacher.

-In student politics I was concerned with; the way that students were ...

-The reason I chose the TIS perspective was that I was interested in the theoretical issue of institutionalization, and I was looking for a way to approach the issue from a feminist-marxist perspective..

-It is perhaps necessary to address the non-user if we are to concern ourselves with the materialities of learning as a negotiation between different materialities. Could this be important to substantiate Sørensen’s account of the way pedagogical research and work is separated? What was the relationship between the LMS and the market forces behind the new technologies?

An LMS, or online learning platform, is a function that organizes and provide access to online learning services for students, teachers and administrators (educational organizations can develop such systems within themselves and it should not therefore in of itself be characterized as a service). It is a broad term, that is used to describe a wide range of applications.

The LMS here therefore approached as an actor-network composed of a range of other actor-networks. In addition to binding together the above mentioned expert cultures, these computer systems draw together other system-categories; like ...

Crucially, the question of how these various actors are tied together is not at once clear. Neither does it ever become entirely clear. For one thing..

I expand upon Francis Lee’s idea of ‘mass-individualization’ as technopedagogy, and theorizes how the concept of ‘augmented reality’ (another term adopted from the vocabulary of the Internet) could be applied to the investigation of ‘personal information management’ infrastructures.

Ending up asking how infrastructures of scaling in ‘local’ learning milieus mediates risk-management practice in the distributed spaces of cloud-based technologies.

In the first chapter I start off by discussing the idea of computers caring for learning. It is an idea that emerges through a grounded approach in which my post-human approach was put to the test in the setting of educational ethnography. I try to observe position of the computer in relation to the teacher, assuming that the teacher play the role of the orchestrator of different ‘materialities of learning’. This idea works as a provocation, and it is therefore also challenged.

Early on in my research I played around with the idea of the computer increasingly assuming the role of wearable augmentations; actively producing ‘ideas of informed bodies’. It rested on the idea of the computer having one design, in which teachers and students was working to positioned themselves against. The idea seemed to have great potential when combined with the idea of the mobile-learning paradigm. The paradigmatic shift towards mobile education had been predicted to transform the idea of education for quite a while, and much of the literature on high-tech education technology (or simply EdTech) was concerned with how education research could adopt to this new epistemic reality.

This approach questions how a technology is attached to the body of the subjects, and the assumption that it is.

The idea was sensitive to the coherence of the idea of the so-called affordance of these technologies.

-This was closer to an investigation of the social construction of technology. I claim that it has been particularly hard for researchers of education to avoid such an human centered idea of learning.

-To figure out my position as an STS researcher I had to distance myself from education research

-The teacher did perhaps not orchestrate the materialities of learning? Or, to put it differently, the orchestration of ‘learning environments’ was perhaps more historically contingent.

-Acting as an ethnographer of the classroom it was easy to confuse my role with that of an ethnography of teaching, or of pedagogy. I was therefore drawn towards the idea of seeing one pedagogy, and not the role of the virtual environment in ordering these pedagogies, or materialities of learning.

I reacted to the extent to which my own observations were not observations of pedagogic activities. This was especially so because I was observing the school in a period in which they were preparing for the holiday and performing a range of end-of-semester activities. Similarly, as I returned to the school after the holiday the circulation of people and objects changed again.

\*This could be referred to as calculative pace.

Coming into the classroom I discover that the computer does not have one design. Rather it is used flexibly, and the idea of ‘flexible standards’ was much more suitable. There were indeed a sort of design in the new cloud based system, yet it was just as much dependent upon the design of the strategy of the municipality; the ‘ICT in education’ policy.

\*A transition towards a digital ontology (from paper knowledge).

The availability of the device in pedagogic work was dependent upon an infrastructure that was both technical, political-economic, and administrative. These were important questions that interacted with the role the teacher played in the implementation of these programs.

\*A program is not simply code, but a service on which to run code. It runs upon an operating system.

**The idea of infrastructure as a service** ; IaaS and trails of strength

The trail of strength; the significance of the lack bandwidth ‘strength’ was striking. Much of the infrastructure was not running in the way the service was supposed too because of this. Understanding how to relate to these technologies as not experimental in the sense that I found Sørensen’s study to be, but in a different way, was difficult.

The relationship between the subject-specific programs that often were discussed among teachers, and the administrative programs discussed among administrators were both dependent upon a much broader set of networks..

\*\*What issues does it mediate; controcersies does it intervene into and not. i.e. the size and temporality of groups.