

Classroom Habit(us): Digital Learning Tools in a Blended Learning Program

Valeria Borsotti
IT University of Copenhagen
Rued Langgaards Vej 7, 2300
Copenhagen, Denmark
+45-72185229
vbor@itu.dk

Emilie Møllenbach
IT University of Copenhagen
Rued Langgaards Vej 7, 2300
Copenhagen, Denmark
+45-22542274,
emilie@itu.dk

ABSTRACT

In this exploratory case study we map the educational practice of teachers and students in a professional master of Interaction Design. Through a grounded analysis of the context we describe and reflect on: 1) the use of digital learning tools in a blended learning environment, 2) co-presence as an educational parameter. We use the concept of *habitus* (Bourdieu, 1977) to engage with the empirical context, and we adopt the Reggio Emilia perspective of viewing space, both physical and social, as *the third teacher* (Edwards et al, 1998). This investigation has led to insights into the existing practice of educators and students, as well as the identification of emerging themes for future research.

CCS Concepts

K.3.0 Computers and Education: Education, Learning, Design Research Methods, Schools/Educational Setting

Keywords

Digital Learning Tools; Moodle; Blended Learning Environments; Social Learning; Co-presence

1. INTRODUCTION

In this study we have explored the educational practice of teachers and students in a professional master of Interaction Design. Through a grounded analysis of the context we describe and reflect on: **1) the use of digital learning tools in a blended learning environment, 2) co-presence as an educational parameter.** This investigation has led to insights into the existing practice of educators and students, as well as the identification of emerging themes for future research.

The themes presented constitute our current position and we consider these the central contribution to the ongoing discourse of HCI and the evolution of technological practices in education. There is a significant amount of research on MOOCs (Cusumano, 2014; Daniel, 2012), flipped classrooms (Bergman, 2013; Herreid, 2013) and digital literacy (Buckingham, 2010; Gilster, 1997). However, we are investigating the integration of various digital tools into an existing educational practice. We use the concepts of *habitus* (Bourdieu, 1977) and *the third teacher* (Edwards et al, 1998) to engage with the empirical context.

We are hoping that this position might frame a discussion that includes, but is not restricted to: **1) the influence of habitus on the learning experience of students and pedagogy of**

teachers when engaging with digital tools and practices; 2) The appropriation of the physical and virtual space in co-presence and in blended contexts.

1.1 The Interaction Design Master Program

The Interaction Design Master Program at the IT University of Copenhagen is a two-year part-time master program designed for students with full time professional jobs. In order to accommodate the busy schedule of the students, the program has recently being redesigned with a blended structure. Each of the six courses in the program¹ takes place over the course of six weeks, with two face-to-face weekend seminars and four weeks in-between the seminars. Teachers were given the freedom to choose how to structure the learning activities – and whether or not to produce digital lectures to share with students. Our study examined the first edition of this new blended structure, which mixed intensive face-to-face sessions with longer durations of group-work and self-study. This structure is an interesting educational premise and the findings indicate that the distribution of activities call for the introduction of new digital practices.

2. RESEARCH METHOD

We were initially approached by the Head of the study line, who was interested in gaining insight into the existing practice of the educators and the student experience, with the intent of subsequently introducing the use of innovative digital tools to support the new educational format. As such, the study functioned as a base-line pilot study focused on existing and emerging digital practices.

We have used the exploratory case study approach (Yin, 2014) in order to map current practices and investigate students and educators' perceptions. Over the course of a month, we collected qualitative data by interviewing six teachers and five of the 41 students enrolled in the master. To supplement this data we have conducted informal observations of classroom activities, group exercises and a teachers' meeting. The observations have helped us contextualize our research and redefine the interview protocols. We have analyzed data using the grounded theory approach (Glaser and Strauss 1967). Insights from the qualitative study

¹ The program is structured around 4 compulsory subjects (Interaction Design - theory and methods, Strategic Innovation, Service design - theory and praxis, Usability and User experience and two electives) and 2 electives.

have been summarized in a brief report that we have shared with the teachers and students in the master.

3. ANALYTICAL FRAMEWORK

Much of human behavior is based on habit and routine. In trying to understand how digital tools are adopted and appropriated by teachers and students, we adopted a socio-anthropological perspective, using Bourdieu's concept of culturally conditioned agency, the *habitus*. As Bourdieu explains: "With the notion of habitus you can refer to something that is close to what is suggested by the idea of habit, while differing in one important respect. The habitus, as the word implies, is that which one has acquired, but which has become durably incorporated in the body in the form of permanent disposition" (Bourdieu 1993: 86). The habitus is a series of 'dispositions', which in turn generate practices that become regular "without in any way being the product of obedience to rules" (Bourdieu 1977: 72).

In trying to understand the role played by co-presence in learning, we were inspired by the concept of third teacher. Early childhood educators in the Reggio Emilia Approach have long stressed the fundamental role of both physical and social space in learning processes, defining the learning environment as the third teacher (Edwards et al 1998). An increasing number of designers, architects and educators are embracing this perspective to reframe the ways we design educational activities, curriculums and the classroom (CBS 2012, OWP/P Architects et al 2010).

4. RESULTS AND DISCUSSION

4.1 A 'Traditional' Approach to Digital Tools During the Online Weeks

All courses in the master featured a mix of face-to-face lectures, group-work activities (including fieldwork and prototyping exercises) and self-study activities. Group activities took place both in class and during the online weeks. Lectures took place almost exclusively in class, with the exception of a weekly webinar developed by one of the teachers. Interestingly, educators and students adopted almost the same types of digital tools both during the face-to-face classes and the online weeks in-between.

Moodle has been used for submitting assignments, managing schedules, posting syllabi and as a communication platform between teachers and students. Software such as Axure, Adobe CS, MS Office, Wordpress and similar have been used to complete assignments. Skype was used for supervision and sometimes meetings. Students used Facebook, Dropbox, Google Docs and Google Drive extensively to coordinate and complete group-work, exchange ideas and practical information. These platforms were the tools of choice for intra-group communication and in some cases for teacher-to-class interaction. One of the educators has defined this approach as 'too traditional.' Pre-existing practices seem to inform what was used throughout the courses. A teacher explained: "*The fastest and easiest way to handle discussions is in Facebook groups because everybody is there, they've got an app on their phone and that's also what they are using while they are working. My personal opinion is to choose whatever is chosen beforehand by the people.*" Another teacher mentioned the idea of using Slack to facilitate a better interaction and discussions across groups in the class, but ended up not adopting it: "*I felt like it was more effort if I used it since we have limited time for the course*". A combination of previous familiarity, ready availability and ease of use seems to be the main drivers behind the choice of tools across the courses.

4.2 Low Participation and 'Missing Out' with Web-conferencing Tools

The weekly webinar developed by one of the educators, whom we will name Karl, has been the only instance of lecture that was delivered digitally during the online period. Despite the fact that neither the webinar nor the face-to-face classes in Karl's course had mandatory attendance, about 30-35% of students participate in the webinar on average, and nearly 100% participated in the physical class. When asked why she only attended the webinar once, a student explained that she was not able to focus properly while at home in the evening: "*it was like two world clashing*", she explained. Karl defined the experience of making the webinar as 'uncomfortable':

"The feeling that you are sitting at home talking to your monitor...I am missing out. When I teach up here [at the university] I am looking at people's eyes...do I loose them? Do they follow me? Do they want to interrupt me? What's happening in the room? You get this...you get this feeling of being together, and it's very different."

The classroom as we know it seems hard to replace when it comes to performing and experiencing lectures. During the online weeks of the master the habitus of face-to-face classroom interaction has led to a traditional and limited choice of digital activities. When we asked the educators whether they would eventually consider making online lectures in the future, they replied with interest but reported to be unsure of the different available options. They also stressed the need for professional training in order to become comfortable with the medium. The habitus of the classroom gives raise to feelings of uneasiness while experimenting with web conferencing tools and new forms of interactions. A teacher reported feeling "weird" while teaching remotely via video in a different course, because of the lack of a visible audience. Another expresses his frustration while taking an online e-learning course during his PhD studies because of the lack of real social interaction with his classmates: "*I didn't meet anyone, all the students were just avatars to me*".

4.3 The Third Teacher

Physical co-presence in a shared place has been a fundamental part of how we have been socialized in the classroom. This dimension is so far missing in the digital. The classroom habitus is inscribed in our body and mind, creating a strong preference for analog contexts particularly when it comes to lectures. All the teachers agree that the face-to-face seminars are fundamental in order to "get the pulse" or "a feeling for" the class, "attune to the needs of students", hear them verbalize new knowledge and correct wrong assumptions, have a lively space for discussion. All the students interviewed also perceive class interaction as fundamental and hard to replace with online teaching activities. One student explains: "*To be honest I think that having the classes, all in all is the best thing! I feel very privileged to just sit there (...) I love being able to sit face to face with my teacher and asking questions or you know like, have a cup of coffee in the break and so on. That is for me like 50% of studying.*" The habitus also informs how students interact with their peers in the learning environment. All the students interviewed report a strong preference for brainstorming sessions and prototyping sessions face-to-face, possibly sketching on paper or on a whiteboard in order to visualize each other ideas and perspectives, and for aligning expectations. The students all agree that face-to-face meetings cannot be replaced with digital ones when it comes to

conflict resolution during group work, networking and socialization with classmates.

5. CONCLUSIONS AND EMERGING POINTS FOR FUTURE DISCUSSION

The course distribution meant that students were left to self-study or conduct peer-to-peer study sessions over a four weeks period. These 'in-between' times hold great potential for innovation and design of digital learning materials. So far mainly communication (Facebook, email, Skype etc.), scaffolding (Moodle) and organizing (Dropbox, Google Drive etc.) were used to facilitate learning processes in the in-between time, this is what we deem 'traditional' tools. Only one educator chose to develop a webinar, which was received with mixed results. It is this observation that leads us to infer that the main challenge in introducing new digital learning tools lies not in the development of the tools themselves, but in the appropriation. This opens up for further investigation into the habitus of educators and how they appropriate and perceive digital tools.

The students and teachers interviewed agree that co-presence in a shared space is the preferred context for learning. Teachers talk of 'tuning into' multiple students in the shared space, something they find impossible to do online. A question for future research is whether this attachment to the physical space is simply habitual or indeed necessary, and whether digital learning environments can in fact mimic or better support a collective tuning into one another.

6. ACKNOWLEDGMENTS

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