FACEBOOK, CANVAS AND SOCIAL PRESENCE IN ONLINE DISCUSSIONS

Monica Johannesen, Louise Mifsud, Leikny Øgrim

Oslo and Akershus University College of Applied Sciences (NORWAY)

Abstract

This paper focuses on student discussion fora in a Masters' programme in ICT-Supported Learning. Previous course evaluations have shown that students were not satisfied with the chosen technology (Fronter VLE) and suggested using Facebook instead. In this paper, we raise the following question: How do various digital discussion fora engage students in academic discussions? Data were gathered from two courses with almost identical student cohorts. The data material consists of student evaluation reports and Facebook and Canvas dialogues. In analysing these interactions, we have identified several categories: social issues, academic discussions, practical issues and information flow, teacher information and crossover discussions. Findings addressing the interplay between the social and material in academic discussions are addressed from a sociomaterial perspective. Our conclusions indicate that the sociomaterial nature of the various discussion fora influences the social presence and awareness of the students, which consequently influences the academic discussions.

Keywords: Facebook, canvas, social presence, sociomaterial, dialogic learning.

1   INTRODUCTION

This paper focuses on student discussion fora in a Masters' programme in ICT-Supported Learning. Previous course evaluations had shown that students were not satisfied with the chosen technology (Fronter) and suggested using Facebook. One group of students refused to use Fronter for discussions and used Facebook instead [1, 2], an action that could be described as a student mutiny. In order to meet the students' demand for technologies other than Fronter, two courses were designed using Facebook and Canvas. With this in mind, we have formulated the following research question:

How do various digital discussion fora engage students in academic discussions?

There is a substantial amount of research on social media and virtual learning environments (VLEs) as means of promoting dialogic learning in education. From this research, we learn that social media work well as an arena for social interaction and peer-to-peer feedback [see for example 3 -7]. Social media, such as Facebook, attract more students than traditional VLEs do [4] and are mainly used to exchange logistical and factual information among students [6]. Studies also indicate that Facebook acts as a third type of space in which students blend their personal and social lives with academic work [7]. In contrast, VLEs are reported to be better for studying [5] and are perceived as an authoritative and valid medium for course material [4]. However, these studies do not fully address the social awareness of students in technology-enhanced learning, particularly not the interplay between the social and the material in online discussions. Consequently, we argue that investigating social presence is of the outmost importance in researching technology-enhanced dialogical learning environments.

2   THEORETICAL BACKGROUND

Within the sociocultural perspective, dialogic conversation is regarded as a prerequisite for students to create insight and understanding [8]. In dialogic pedagogy, understanding is based on collaboration, specifically searching and testing ideas and values against, for example, those of peer learners and mentors [9, 10]. From this perspective, student-active forms of learning are important methods both at compulsory school levels and in higher education [11]. Understanding the role of dialogue is crucial to gain insight into students' understanding and in studying student discussions in online fora. In studying a situation in which communication is mediated through digital devices, the relationship between technology, human actors, and learning is essential.

2.1 Sociomaterial approach to social awareness and presence

In this paper, we draw on a sociomaterial perspective on learning and social interaction [12, 13]. Socio-material approaches focus on the relationship between technologies as material tools and social framing [14]. A sociomaterial approach emphasizes the materiality of situations that include both humans and nonhumans. "Nonhumans" are taken to be the objects, artefacts, tools, etc. that are around us. Thus, materiality is intertwined with various aspects of learning [15], which means that phenomena can be understood as entanglements of material and social entities. From this perspective, the effects of networks of interactions between human and non-human actors – in this case, between students, teachers, course materials and communications technology – are seen as interesting [12].

Engagement is closely related to the concept of social presence in relation to the digital learning environment [16]. Social presence is defined as the degree to which the participants in digital learning environments create a sense of other participants being physically present or 'real'. Tu and McIsaac [17] take the concept further, suggesting a conceptual framework that can be used to understand social presence in such interactions, defining intimacy and immediacy as important for communication in online learning environments. Here, we employ these notions of social presence to illustrate and analyse the dialogic dimensions of technology-enhanced learning.

3 RESEARCH DESIGN

This study uses a case-based design to study online communication practices among students and teachers participating in a master's programme in ICT-supported learning. The two cases studied made use of Canvas and Facebook to support discussion and collaborative student work. The aim of the research is to illustrate how these two tools engage students in different ways and might be regarded as a series of nested case studies with interesting and overlapping units of analysis within the realm of quantitative research [18, p. 298]

3.1 Case descriptions

The course employing Facebook for communication and dialogue, Introduction to Technology-Enhanced Learning, was partly campus-based. One important aim was to establish a community of learning among the students and faculty. Lectures and dialogues were streamed and recorded in order to accommodate part-time students who could not follow the course in real time and students who were geographically removed. Another important aim of this particular course was to establish a community of learning among the students and faculty. Subsequently, the mechanisms of social interaction were viewed as an important part of the course design, in addition to the practical arrangements. Based on previous experiences from other course deliveries that implied that Facebook worked well in establishing social presence in online dialogues [2], Facebook was implemented to build an active learning community.

In the course employing Canvas, E-assessment, the students presented one another with texts from the curriculum, and these presentations formed a starting point for online discussions among the students. To ensure active discussions, every student had to comment on at least two presentations by their peers. Follow-up discussions between the participants were conducted in the asynchronous discussion forum in Canvas. Later in the course, students were supposed to collaborate in performing two practical tasks and in sharing information and experiences. The course was conducted completely online, and the participants never met physically. In addition, the dialogue in the course was always asynchronous; thus, the participants were never online simultaneously. Finally, the language of instruction and dialogue was English, a setting that created an additional challenge for students who were not well-trained in English.

3.2 Data collection and analysis

Fenwick and Edwards [19] state that research on learning and education can be characterised in terms of a complex reality that must be understood. In technology-enhanced learning, new challenges emerge that cannot be addressed simply by stating that technology is just another tool. There is a need to go beyond traditional ethnographic studies in education and look into a hybridity of classrooms, cultures and online communities [20]. Instead, the entanglements of social and material entities must be unpacked, and the relationships between these must be investigated. The cases described here are characterised by actors that are both on campus and online, and both using

technology for communication. Hine [21] distinguishes ethnography *for*, *of, in* and *through* the Internet. In line with Hine, we adopt an ethnography *for* the Internet, i.e., one that considers blended (virtual and physical) worlds, focusing on the embedded, the embodied and the everyday.

Data were gathered in the autumn of 2016 from two courses with almost identical student cohorts. Triangulated data collection is applied in this study, including data from the course evaluation reports from the two courses, which was mostly reported by the same cohorts and supplemented by analyses of the course-specific online discussions both in the VLE (Canvas) and on Facebook. The data material consists of twelve student evaluation reports, 100 pages of Facebook dialogue (representing all entries) and extracts of Canvas dialogues, focusing on dialogues at the beginning of the course period (mandatory, 28 responses), in the middle of the course (elective, 11 entries) and at the end of the semester, relatively close to the exam. Student evaluations, in the form of a survey, were administered at the end of each of the courses.

Law [22] argues for methods that can represent complexity in an attempt to increase clarification, highlight the 'performative' focus of the research and produce realities. From a socio-material perspective, the researcher concentrates on following a given network, such as the two courses described in this paper, and investigating effects on matters of concern for the various actors involved [23], such as, in the case of this paper, the students' engagement in academic discussions. The discussions were downloaded and analysed, making use of document analysis [24] to identify categories of social presence. The discussions were read carefully, and each post was given a descriptive token based on the content of the discussion post, such as discussing social issues. Discussions in Norwegian were translated by the authors.

3.3 Ethical considerations

At the beginning of the semester, the students were informed that their online dialogues would be studied, and all students were asked to sign a letter of consent, on a voluntary basis. All students signed the consent form. The students were informed that only their dialogues and discussions would be studied and that personal information would not be utilised.

The authors of this article were also the educators of the courses in question. We recognise our agency in the case. Therefore, to obtain distance from the data, we separated the analysis of the dialogues in the two courses by letting the uninvolved teachers analyse the involved teachers' material.

Another issue that might constitute bias in this study is language use in the two courses. While the Facebook course is taught in Norwegian (the mother tongue for most of the students), the Canvas course is taught in English. In analysing our data material, we have taken into account that English language use may be difficult for many students, both socially and academically.

4 FINDINGS AND ANALYSIS

Both courses started with a discussion of the expectations regarding the discussion fora. In analysing the interaction during the initial discussions and the contentious discussions throughout the course, we have identified several categories of dialogic conversation. The categories we focus on are social issues, academic discussions, practical issues and information flow relating to study, teacher information and crossover discussions. The identified categories form the structure of the findings and analysis, presented below.

4.1 Social issues

Discussions on Facebook, initially primarily took up social issues, such as investing in a coffee-machine, while social issues appeared only twice in Canvas and were well-woven into academic discussions: "My time is up for today. I will come back later. Just a quick "well done", before I have to go shopping for taco :-)". However, discussions of social issues were repeated almost weekly in Facebook, for instance, the following: "(I) start the week-end now. Thanks for awesome presentations! Good repetition of course materials." Social issues also focused on more personal factors, such as getting to know one another: "Nice getting to know you! I look forward to working with you!" and encouraging exclamations of "hurrah" when the exam-date was close. Interestingly, the Facebook discussion about coffee was initiated by the teacher and focused on student expectations. It included posts such as "I believe a good cup of coffee gives clear brains and a splendid basis for good

cooperation (said by a coffee addict.) Would anyone like to pool in on a coffee machine?" The discussion was pulled back on track by the teacher and continued as an academic discussion:

> I think this is a channel for all participants in the course. This is a meeting spot for both campus and remote students. We should define a common digital form for academic discussions.

Here, we see that it is a student who is encouraging the other students to use the fora as a "common" digital meeting place for academic discussions. From a dialogic learning perspective, we see that the discussion around investing in a coffee machine and the relative merits of coffee with regard to academic discussions facilitated a high level of social presence. This highly social discussion eventually evolved into an academic discussion. However, Canvas appeared to suppress social discussions, except when such discussions were legitimate. The legitimacy of a social post was put forward in the form of an "excuse", an explanation of the impossibility of continuing to participate in the academic discussion. These posts were also well-integrated into the rest of the discussion. From a sociomaterial perspective, our findings indicate that Facebook, as a platform that students join voluntarily, invites the sharing of private information. In Canvas, an academic platform, it appears that personal discussions have no legitimacy unless they are an excuse for a lack of further participation.

4.2   Academic discussions

Discussions in Canvas were mainly of an academic nature, involving issues pertaining to the course. One student highlighted that Canvas worked well for academic conversations because it arranged for academics to interact with one another "Really, Canvas worked as a support for academic discussion because it brought together the circle of academicians to interact with one another."

On Facebook, we also saw traces of academic discussions, for instance, discussions of the meanings of several concepts.

> To my understanding, cooperative learning is the same as 'traditional groupwork/ cooperation', while collaborative learning is 'mediated group work' or 'electronic cooperation'. I guess there are better expressions, but I think I would choose words like this.

Here, students discuss the differences between cooperative and collaborative learning, terms that are essential parts of the course. The discussions of concepts were mainly related to the exam, such as defining social media and VLEs. These discussions were student-initiated and were not obligatory, as opposed to the course applying Canvas. Interestingly, the students themselves commented the fact that they were using Facebook for academic discussions when they were focused on the exam "Somewhat fascinated - we have a proper academic discussion now".

The student cohorts were almost identical. There are indications that Facebook met the social needs for both courses. On the one hand, Canvas appears to be viewed as a trustworthy arena for academics. As one student pointed out, «And Canvas seems to be trustworthy». On the other hand, our analysis reveals that the obligatory nature of the discussions in Canvas was not conducive to social presence. Student participation in the discussions in Canvas was not limited to the mandatory discussions. One such example is a discussion of the various tools used for assessment, to which all students contributed, some with more than one post, resulting in 23 individual discussion posts.

From a sociomaterial perspective, student engagement in various fora can be understood in terms of negotiating power, where setting up discussions as obligatory is a material actor with less influential power as compared to the inscribed social nature of Facebook technology. These observations were supported by the student evaluations at the end of the course. Students are mainly positive about the use of Facebook for discussions due to the immediate nature of Facebook as a "push" and "informal" technology.

4.3   Practical issues and information flow relating to studies

From the data, we find that one type of topic that was taken up in the discussion posts was practical issues. This mainly occurred in the Facebook discussions and concentrated on, for example, what kind of documents were to be handed in (pdf, doc, etc.), the times for the student sessions, how to use zotero/endnote and tips on various ICT tools and software programs. Within the Facebook discussions, these kind of contributions dominated during certain periods. These kind of statements can be regarded as relatively neutral, and as such, they are easy to post. Furthermore, there are

indications that Facebook was seen as the right place to obtain answers to such questions: "Absolutely. The tool is absolutely the best and easiest to communicate with fellow students and provides contact with lecturers in a less formal way. I guess there is a lower threshold for asking 'stupid' questions." The students suggested setting up a Facebook group that functioned as a repository for frequently asked questions (FAQ) for off-campus students. "I recommend a Facebook group containing FAQ as a link between students who are present/not present physically on campus. In addition, I see Facebook as a link between the weekly lectures."

We did not see many examples of discussions that focused on practical issues in Canvas. At one point, around the middle of the semester, the subject of turn-taking and respect for the individual students' progress was taken up. "I hope we can respect each other by waiting for the one who is assigned to comment before joining the discussion." That post resulted in several affirming comments, guiding the group towards a common understanding of how to communicate in an asynchronous forum. Interestingly, the students took up some practical issues regarding the course running in Canvas or on Facebook. The students discussed why a specific folder in Canvas was closed and who would contact the teacher about re-opening the folder. Teacher contact was, interestingly, initiated via email.

Posts dealing with practical information were common in the Facebook forum. These posts ranged from statements of coordination, such as "Student C and I plan to work together on the next task" and "Today we start the seminar at 13:45", to acknowledgements of students not presently co-located, such as "Greetings from the physical classroom", to the documentation of school trips and student presentations. One student expressed that even though it was somewhat chaotic, there might be interesting information in the Facebook thread: "Yet, you could find things there [on Facebook] that you might not have found yourself. It's a good source." However, these threads were difficult to follow.

> [Facebook is…] a bit untidy due to the chronological order of the posts, and all kinds of posts are stacked together. You log on to continue where you left off what you were engaged in the last time, and then, there is a lot new stuff that appears as 'interference'.

In contrast, students report that they prefer the structure of Canvas. "I like the structure of Canvas. It is easy to find previously presented articles and discussions. In addition, I get a message in my mailbox every time there is something happening." The tidiness of Canvas was underlined, particularly how this kind of system brings the student into what can be described as a study mode.

> It [Canvas] is tidy and offers a good overview, and it is focused on the course itself, so when you are in there, you are really getting into ´student mode´. You don't get the same feeling in, for instance, Facebook.

Our findings indicate that Facebook is regarded as the best way to communicate, with its low threshold for raising what the students termed "stupid" questions. The number of questions raised on Facebook as compared with Canvas corroborates this. This can be understood in terms of perceived intimacy and immediacy. Thus, there is a high level of social presence on Facebook. From a sociomaterial perspective, we can see that the materiality of Facebook allows for these kinds of topics. The materiality of Canvas brings students into a "serious" mode of discussion. However, students experienced a lack of turn-taking and respect for co-students' study situations while waiting to post their own obligatory entries in the discussion forum. Based on these experiments, they attempted to make sense of the system for discussion, which was founded on turn-taking and time, as supported by the case-oriented threads in Canvas. Discussions on Facebook are organised around the person who posts a discussion, rather than topic-wise, which indicates that a focus on turn-taking is highly unlikely on Facebook.

The data regarding information flow indicate much same thing. Students enjoy the immediacy and informality of Facebook to a certain extent but at the cost of chaos. In this sense, it seems that the materiality of Facebook serves the immediacy of studying well, while it can be described as contra-productive to the process of reflective learning. Looking into previous discussions that are documented on Facebook threads does not work well. One the one hand, the dialogic nature of Facebook is supportive when one is engaged in a more-or-less synchronous way, but not as a stand-alone product. On the other hand, the materiality of Canvas engages the students in a well-structured study mode and offers an easy way of looking into the past. However, the asynchronous method of debating may require some rules and regulations.

4.4   Teacher information

Another category that emerged from our data is teacher information, where teachers posted information to the class indicating that, for example, certain assignments had been graded. Other examples of teacher information include discussions and questions directed towards the teacher, such as questions about privacy and copyright-related issues, after having a related lecture. In the Facebook discussion forum, a student reflected on the issue of having teachers (academic staff) engaged in the discussion: "I believe we benefit from having a group that the teachers are also members of." The information obtained from the teachers themselves was mostly informative or summative in both discussion fora. Informative posts, such as "Information is now posted [...] on how to follow streamed lectures synchronously or watch video recordings afterwards via Adobe connect" were typical. When it comes to guiding academic student discussions, posts from teachers were mostly presented as confirming, correcting and summative in relation to what the students had presented in their discussions.

As the data indicate, the teachers also acted differently in the two discussion fora in question. The students experienced that questions posted to Facebook at the end of a lecture were answered in a quick and informal manner by the teacher. In contrast, the teacher posts in Canvas are characterised by being academic in nature and directly related to the dialogue in the discussion forum. While posts on Facebook were often quite prompt, the feedback in Canvas was given in a regular and planned way. Again, we see the immediacy of Facebook, where responses were instantaneous, rapid and informal, while Canvas encourages planning and reflectivity. From a sociomaterial perspective, we can see that the entanglement of the social and the material brings about different dialogic learning environments.

4.5   Crossover discussions

An interesting finding that emerged was the use of the Facebook discussion not only for the course that it was intended for use in but also for discussions pertaining to the other course. Examples of this include questions related to the syllabus and curriculum:

> Hello, I know this is not the group for the [Canvas course], but have any of you found the list showing what article to present? I have looked everywhere but cannot find any overview. Maybe, you clever guys have a better overview than I do?

Here, we see that the nature of the discussion relates directly to the other course and is not social in nature but a search for information. Other questions focused on, for example, finding the specific link for the course applying Canvas "Can anyone help me in finding the Canvas link? Cannot find my way…"

The above examples confirm and sum up the findings regarding the other categories presented in this paper. The immediacy and intimacy of Facebook contribute to a high degree of social presence. Accepting that Facebook has a high degree of social presence makes Facebook superior to Canvas when urgent matters must be addressed. The students know that posting the same questions in Canvas will result in many days' delay before obtaining an answer. They would probably also have considered where to post questions, even considering creating a new discussion thread that would allow for such questions and practical issues to be addressed.

5   DISCUSSION AND CONCLUSION

When attempting to understand and analyse how various digital discussion fora engage students in academic discussions, viewing posts in the two platforms chronologically illustrates student engagement. Our findings indicate that at the beginning of the semester, the students start discussions on Facebook primarily as a way to have social interaction. One month into the semester, the discussions were still largely social, but some discussions of the use of different software programs also came up. Halfway through the semester, we see that the focus is information flow. During the final months of the semester, in the run-up to the exam, the discussions take an academic turn, perhaps due to the looming exam. In contrast, the Canvas discussions are academic from day one. The findings in this study indicate that this is mostly due to the sociomaterial differences between these two fora, which create huge differences in the levels of social presence in these technology-enhanced environments. However, the fact that the Facebook discussions were presented in the students' mother tongue, while the Canvas discussions were presented in the students' second language (English), must also be taken into consideration.

Facebook, first and foremost, provided immediacy, while Canvas provided order and reliability. The data in our findings indicate that Facebooks worked very well during the course, while Canvas was the better option when students needed to look back on, reflect on and make use of discussions initiated during the term for exam purposes. To a certain extent, both platforms serve key dimensions of dialogic learning – sharing and reflection.

Another important issue in studying the engagement of students in academic discussions is who initiates the discussions and why the discussions are initiated. The findings of this study indicate that discussions that begin as academic may turn into everyday chats about coffee machines and pending exams. For the sake of social presence, these chats are important. From an academic perspective, such dialogues may seem counter-productive. Consequently, the monitoring role of the teachers can be seen as important.

Based on the research presented in this paper, we state that the sociomaterial nature of the discussion fora influences the social presence and awareness of the students, which consequently impacts the kind of learning dialogues that these various fora invite. Hence, we suggest that both sociomateriality and social presence should be taken into consideration when designing discussion fora for technology-enhanced learning environments.

REFERENCES

[1]   M. Johannesen and L. Øgrim, "Sosial tilstedeværelse i digitale læringsomgivelser," in *Samtalens didaktiske muligheter*, H. Christensen and R. S. Stokke, Eds., ed Oslo: Gyldendal akademisk, 2015.

[2]   M. Johannesen, O. Smørdal, and L. Øgrim, "Facebook as an acgtor - A case of students negotating their social presence in a na online course " *Seminar.net International Journal of Media Technology and Lifelong Learning,* vol. 12, 2016.

[3]   C. Madge, J. Meek, J. Wellens, and T. Hooley, "Madge, C., Meek, J., Wellens, J. & Hooley, T. (2009). Facebook, social integration and informal learning at university: 'It is more for socialising and talking to friends about work than for actually doing work'." *Learning, Media and Technology,* vol. 34, pp. 141-155, 2009.

[4]   M. Maleko, D. Nandi, M. Hamilton, D. D'Souza, and J. Harland, "Facebook versus Blackboard for supporting the learning of programming in a fully online course: The changing face of computing education," presented at the Learning and Teaching in Computing and Engineering (LaTiCE), 2013.

[5]   N. Petrovic, V. Jeremic, M. Cirovic, Z. Radojicic, and N. Milenkovic, "Facebook vs. Moodle: What do students really think?" presented at the International Conference on Information Communication Technologies in Education (ICICTE) 2013.

[6]   N. Selwyn, "Faceworking: Exploring students' education-related use of Facebook," *Learning, Media and Technology,* vol. 34, pp. 157-174, 2009.

[7]   J. Aaen and C. Dalsgaard, "Student Facebook groups as a third space: Between social life and schoolwork," *Learning, Media and Technology,* vol. 41, pp. 160-186, 2016.

[8]   O. Dysthe, "Teoretiske perspektiver på dialog og dialogbasert undervisning," in *Dialogbasert undervisning,* Dysthe, Berhard, and Esbjør, Eds., ed Bergen: Fagbokforlaget, 2012.

[9]   L. Flitton and P. Warwick, "From classroom analysis to whole-school professional development: Promoting talk as a tool for learning across school departments," *Professional Development in Education,* vol. 39, pp. 99-121, 2013.

[10]   E. Matusov and K. Miyazaki, "Dialogue on dialogic pedagogy," *Dialogic Pedagogy: an International Online Journal,* vol. 2, 2014.

[11]   G. Imsen, *Elevens verden: innføring i pedagogisk psykologi*, 5. utg. ed. Oslo: Universitetsforl., 2014.

[12]   T. Fenwick, R. Edwards, and P. H. Sawchuk, *Emerging Approaches to Educational Research: Tracing the sociomaterial*. London: Routledge, 2011.

[13]   E. Sørensen, *The Materiality of Learning. Technology and Knowledge in Educational Practice*. New York: Cambridge University Press, 2009.

[14] M. Johannesen, O. Erstad, and L. Habib, "Virtual learning environments as sociomaterial agents in the network of teaching practice," *Computers and Education,* vol. 59, pp. 785-792, 2012.

[15] W. J. Orlikowski, "Sociomaterial practices: Exploring technology at work," *Organization Studies,* vol. 28, pp. 1435-1448, 2007.

[16] C. N. Gunavardena and F. J. Zittle, "Social presence as a predictor of satisfaction within a computer-mediated conferencing environment," *America Journal of Distance Education,* vol. 11, pp. 8-26, 1997.

[17] C.-H. Tu and M. McIsaac, "The relationship of social presence and interaction in online classes," *The American Journal of Distance Education,* vol. 16, pp. 131-150, 2002.

[18] M. Patton, Quinn, *Qualitative Research & Evaluation Methods*. London: Sage Publication, 2002.

[19] T. Fenwick and R. Edwards, *Actor-network Theory in Education*. London: Routledge, 2010.

[20] P. Hetland and A. Mørch, "Ethnography for investigating the Internet," *Seminar.net International Journal of Media Technology and Lifelong Learning,* vol. 12, 2016.

[21] C. Hine, *Ethnography for the Internet: Embedded, Embodied and Everyday*, 2015.

[22] J. Law, *After Method: Mess in Social Science Research*. London: Routledge, 2004.

[23] B. Latour, *Science in Action*. Cambridge, MA: Harvard University Press, 1987.

[24] G. A. Bowen, "Document analysis as a qualitative research method," *Qualitative Research Journal,* vol. 2, pp. 27-40, 2009.