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Facebook as an actor - a case of students negotiating their social presence in an online course

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Abstract

This article reports on a study of a higher education online course based on asynchronous communication. The selection of technology for online discussions aimed at creating a sense of togetherness among the teachers and the students. This choice proved to be a source of insights into the differences of agency of a virtual learning environment (VLE) compared to social media when it comes to social presence. We discuss the agency of Fronter, our formal VLE, and Facebook, when it comes to their effect on the relevant social networks at hand. Important issues identified are related to the quality and nature of the professional and social relations between teachers and students as well as their technology practices in the online course. The discussions are based on the concepts of immediacy and intimacy, as these issues kept appearing in the interviews with the students. The article suggests that the differences of materiality between VLEs and social media, exemplified here by Fronter and Facebook, matter in several respects: how social relations are established and sustained, the agency of the technology in respect to social presence and control and how the technologies affect the quality of dialogic pedagogy.

Keywords: educational dialogues, socio-material perspectives, social presence, virtual learning environments, facebook

Introduction

Choosing and adapting technology for use in an online course in higher education entails developing learning and teaching practices where the interplay between technology, students, teachers and academic content needs to be considered. This article reports on a study of experiences from a specific online master's course. Within the sociocultural perspective, which this online course draws on, the dialogic conversation is regarded as a decisive factor in creating insight, understanding and critical reflection (Dysthe, 2013, p. 78). Dialogic pedagogy aims to foster learner agency, in the sense that understanding is based on collaboration that searches for and tests ideas and values against other ideas and values (Flitton & Warwick, 2013; Matusov & Miyazaki, 2014). All forms of education can function dialogically, with the teachers facilitating reflection and multidisciplinary thinking (Dysthe, 2012, p. 46). Student-active forms of learning, projects, group work and formative evaluation are important ways of learning, both in primary school and in higher education (Imsen, 2014).

In the online course of this study, the students were not physically present, but separated in time and space, requiring all the participants to use digital technologies. The focus in this article is how different technologies can influence conditions for dialogic pedagogy. To illuminate this matter, the conversations and meaning making in the online course were studied, and the students and the teachers were interviewed. The preliminary analysis showed that the students had strong feelings about the different technologies, in particular regarding the importance of using the technology for establishing a social presence, i.e. an adequate degree of presence of the other in an interaction and the consequent appreciation of an interpersonal relationship (Short, Williams, & Christie, 1976, p. 65).

There is a substantial amount of research on Facebook and VLEs showing that social media mostly works as an arena for social interaction and peer to peer feedback (see for example Madge, Meek, Wellens, & Hooley, 2009; Maleko, Nandi, Hamilton, D'Souza, & Harland, 2013; Petrovic, Jeremic, Cirovic, Radojicic, & Milenkovic, 2013; Selwyn, 2009; Aaen & Dalsgaard, 2016). Facebook attract more students (Maleko et al., 2013), and is mainly used for exchange of logistical and factual information among students (Selwyn, 2009). It seems like Facebook works like a third space where students blend their personal and social life with academic work (Aaen & Dalsgaard, 2016). On the contrary, VLEs are better for studying (Petrovic et al., 2013) and are viewed as authoritative and valid media of course material (Maleko et al., 2013). However, these studies do not fully address the social awareness of students in online learning. Consequently, we argue that investigating social presence is of outmost importance in researching dialogical learning environments.

Two different technologies were used in the online course, a VLE, Fronter, and Facebook. The experiences of using these systems are compared and contrasted, building an understanding of the relation between technology enabling social presence in online courses and aspects of dialogic pedagogy. In particular, the understanding of how technology can influence students' social presence in dialogic conversations is analysed. Thus, the questions raised are:

- How is social presence established and sustained in the online course?
- How is social presence affected by the different digital technologies used?

- How can the relations between social presence and dialogic learning in the online course be characterised?

The article is structured as follows: First, the theoretical framework is presented, being a socio-material approach to understanding situated social presence and dialogic learning, both mediated and affected by digital technologies. Then the important lessons learnt regarding agency are identified, both from a learning and teaching point of view. Finally, the concepts of immediacy and intimacy are discussed in relation to various conceptions of agency related to dialogic pedagogy.

Theoretical framework

Within the pedagogical context, there is a common understanding of the term 'actor' as a subject with intentions (Nordahl, 2013, p. 102). However, in this article, the role of non-human actors (see for example Latour, 1987) is discussed, such as computers and digital artefacts, and their role in learning dialogues. The relation between digital technology, education and learning is emphasised in a number of studies (Erstad & Hauge, 2011; Krumsvik, 2007). This article is based on a socio-material perspective on learning and social interaction (Fenwick, Edwards, & Sawchuk, 2011; Sørensen, 2009), which means that phenomena are understood as entanglements of material and social entities, and that phenomena are situated and results of performative enactments and doings. In such a perspective, the effects of networks of interactions between human and non-human actors are seen as the most interesting part to study. The concrete practice is thereby understood as an effect of the interplay between material and social elements (Fenwick et al., 2011; Johannesen, 2013). Hence, in this article, both human actors – such as students and teachers – and non-human actors – such as communication technology and didactics – are studied, in addition to how they mutually affect each other and, thereby, the learning conversation.

Dysthe (2012) has presented dialogue-based teaching as closely tied to the concept of learning conversations. Both the notion of conversation and that of dialogue are often used in colloquial language to describe an everyday conversation between two or more individuals, while dialogue is often understood as containing a deeper contextual purpose (Dysthe, 2012, p. 51). Flitton and Warwick (2013) argue that a dialogic approach to teaching and learning would shift the emphasis of lesson communication from the teacher to students, because a dialogic stance aims to foster learner agency, whereby students collaborate with others in seeking understanding, building from their own ideas and allowing other ideas and opinions to mediate and modify their thinking.

Traditionally, a dialogue assumes the physical presence of the actors involved. Technology has changed this and created new opportunities for dialogue. Online learning environments bring about new forms of dialogue, allowing for asynchronous communication as well as peer learning environments. However, new challenges, such as a lack of rapport among teachers and students, may arise. Therefore, the conditions for dialogic pedagogy in an online course are discussed through the introduction of the concept of social presence.

Social presence

Gunavardena and Zittle (1997) discuss social presence in relation to digital learning environments. In that context, they define social presence as the degree to which the participants in digital learning environments create a

sense of other participants being physically present or 'real'. This article seeks to contribute an increased understanding to the field of dialogical pedagogy by discussing social presence as a prerequisite for dialogue, where people intend to explore and develop meaning. This article discusses situations where the participants are not physically present and technology is seen as a significant factor for the experience of the participants in the dialogue.
Several studies show that rich media such as Second Life[i] support the feeling of engagement and immersion, while simpler media such as chat provide better task orientation (Bente, Rüggenberg, Krämer, & Eschenburg, 2008; Tan, Sutanto, & Phang, 2012; Yamada & Akahori, 2007). Furthermore, many studies show that social presence is improved when it is facilitated for increased activity (Fang-Wu & Yi-Shin, 2006; Kim, Kwon, & Cho, 2011). Schrum, English and Galizio (2012) emphasise the purpose of authentic and clear roles in online-based communication. Moreover, Baker (2004) points out the immediate proximity of the teacher or the ability to respond quickly to the students, while Borup, West and Graham (2012) claim that an explicit teacher role is especially important for the students to experience social presence in the use of video lectures. Several studies have suggested a set of factors that are needed to establish social presence in a digital learning environment (Chih-Hsiung, Cherng-Jyh, Blocher, & Junn-Yih, 2012; Dow, 2008; Sherblom, 2010; Sung & Mayer, 2012). These studies focus first and foremost on mechanisms to improve the students' communication, activity, productivity and fulfilment of studies in a digital educational setting. This article looks more closely at aspects within the communication itself and especially how digital learning environments influence the dialogue between teachers and students and between students.

Tu and McIsaac (2002) suggest a conceptual framework that can be used to understand the relation between social presence and online interaction. Two components are seen as important for communication in online learning environments: intimacy and immediacy. 'Intimacy' describes such factors as eye contact, physical proximity and the topic of conversation (Argyle & Dean, 1965). Body language and mimicry are examples of what can contribute to intimacy. Both too much and too little intimacy will influence the dialogue, and the participants will adjust their behaviour to reach a balanced form of intimacy (Short et al., 1976), e.g. the ability to share content only with appropriate audiences within certain areas of life (Ozenc & Farnham, 2011). 'Immediacy' is about the psychological distance between those who communicate (Mehrabian & Wiener, 1968). The experience of immediacy within communication can be improved through the way of speaking and also through nonverbal signs and signals. There are similarities in the understanding of the two components, intimacy and immediacy. In this article, the components of intimacy and immediacy are regarded as a good starting point to describe and understand the agency of various technologies in the negotiation of mounting social presence in learning.

Research design

This study has a case-based design, where experiences from both students and teachers participating in a master programme in ICT-supported learning, utilise various technologies and pedagogical designs in an online educational setting. Some parts of the programme are designed as online courses, while others are facilitated for campus presence. Additional experiences from this programme are presented in (Johannesen & Øgrim, 2015. pp. 141-165). The case studied here is taken from systematic experiences from the implementation of one of these courses.

Case description

The empirical data were gathered in 2013 and 2014 from a course that is completely asynchronous and text based[ii] and where the language of instruction was English. In this course, the students presented each other with texts from the curriculum, and the 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 from their peers. Follow-up discussions between the participants were conducted in the asynchronous discussion forum in the VLE or online communities such as Facebook.

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 the students that were not necessarily well trained in a foreign language.

Fronter was initially prepared as the main channel for the communication and dialogue of the course because it is suitable for an asynchronous approach and because the presentations and corresponding discussions threads are easily found by teachers and students. However, the course description allowed for the students, in cooperation with the teachers, to suggest an alternative technology.

Despite the course being based on the idea of asynchronous dialogues, a first synchronous video lecture was arranged. Among the ten students participating in the first cohort, six chose to follow the lecture together in a physical classroom setting on campus. The teachers were not present in the classroom, but were engaged in the video lecture from their respective offices. During the lecture, one of the students created a group on Facebook aimed at the participants in the course. The teachers were invited into this group. Immediately after the lecture, the students present on campus expressed a wish to replace Fronter with Facebook as a technology for discussion. The teachers accepted this. However, a few hours later, they reneged on their decision and informed the students both through the official channels of email and Fronter and through the Facebook group that the original choice of using Fronter as the main technology for dialogue should remain. A description of why the teachers accepted the students' wishes and why the teachers reneged will be described below.

Data collection and analysis

Research on learning and education can be characterised in terms of a complex reality that must be understood (Fenwick & Edwards, 2010). In this case, there is a need to go beyond traditional ethnographic studies in education and look into a hybridity of classrooms, cultures and online communities. When ICT enters learning and education, new challenges emerge that cannot be addressed simply by saying it is just another tool (Hetland & Mørch, this issue). Instead, the entanglements need to be unpacked and the relations between the actors understood. The case described here is characterised by actors that are both onsite and online. Hine (2015) distinguishes ethnography *for*, *of*, *in* and *through* the Internet. In line with Hine, we adopt an ethnography *for* the Internet, i.e. blended (virtual and physical) worlds, focusing on the embedded, embodied and everyday.

Hence, a triangulated data collection is applied in this study, including group interviews with two teachers and five students from two cohorts, supplemented by analyses of the course-specific online discussions both in the VLE and on Facebook. We decided to include data from both 2013 and 2014,

as there was an atypical situation in the first year related to the teachers' indecisive conclusion on the choice of technology. By this, a richer set of data is available, where both students involved in the dispute and those who were not form the basis for the analysis.

Claiming that all research is 'performative' and produces realities, Law (2004) argues for methods that can mirror that which is complex and unclear to a greater degree. In a socio-material approach, the researcher will choose to focus by following a given network and investigate effects for the different actors' matter of concern (Latour, 1987). Two of the authors of this article are also the educators of the online course in question. How the experimental lessons are transformed into policy and practice by the participatory ethnographers is often unanswered (Hetland & Mørch, this issue). We recognise our agency in the case, both in terms of the indecisive conclusion regarding the choice of technology, which is the core of the article, and our matter of concerns in this respect. Hence, we have separated the analysis to resolve this issue. Furthermore, the two teachers interviewed are also two of the authors of this article. To obtain distance from the data, the interviews of the involved teachers were conducted by the third author. The interview unfolded the teachers' description of the learning situation and pinpointed the negotiation of technology between the teachers and students. Based on this interview, the theme of the student interviews was set. All the authors participated in the student interviews. Five students from two cohorts were interviewed. They were asked about the general use and selection of technology in the master's programme and specifically on their use of Fronter and Facebook, respectively. All the interviews were recorded and transcribed for further analysis.

Findings

The description of the data from the study was organised according to the matter of concern of the two main groups of human actors, namely teachers and students.

Teachers' point of view

In 2013, the teachers perceived the discussion in the classroom after the lecture as a strong argument from a consistent group of students. The students argued that they wanted to use a technology they were familiar with from their everyday life, that Fronter is old fashioned and that they themselves would never have argued if their own students had suggested a technology different from what teachers had decided on. The students present claimed that a unified group of students agreed on using Facebook. When the teachers questioned the person-oriented organisation of discussion threads on Facebook, the students replied that 'it will work out with discipline'. They argued that if only the participants agreed on the rules of conversational structures and followed these, it would not be a problem. However, two observations formed the basis for the teachers to revert to the original decision accepting Fronter as a discussion arena: First, the structure of Facebook is fundamentally person oriented. It is not – as far as the teachers knew – possible to structure discussions by topic. Second, not all students were members of that group, and individuals not enrolled as students of the master programme were invited as members. The teachers noticed that they had little control of the technology in use and consequently overturned the decision.

The teachers claimed that the verbal immediacy of the teachers, in particular the process of taking notice of and commenting on every single student, can be better on Fronter than on Facebook, since the discussions on Fronter are organised hierarchically by subject. It is, therefore, easier for the teachers to

ensure that the students are participating. Accordingly, it is more likely that the students get teachers' comments on their contributions. In that way, the teachers' opportunity for social presence is better on Fronter than on Facebook.

In hindsight, the teachers expressed that they had exercised poor judgement in this situation. They should have evaluated the two discussion forums beforehand based on the intention of the course design and should not have accepted the students' pressure to make a hasty decision. In addition, the teachers had not investigated whether all students agreed to the change in technology before they decided on doing so, something that turned out not to be the case.

Later in the course period, the teachers experienced that the discussions on Fronter, which took place in English, were brief and formal in this course period. The students submitted their mandatory presentations and comments, while more lively discussions took place in the Facebook group in the Norwegian language. The discussions on Fronter were noticeably scarcer and very formal, compared to online discussions in previous years. This was the fact the following year too, when the students again created their own group on Facebook.

The teachers' matters of concern were tied to their need for having an overview of the progress of the students. This was mainly about monitoring and knowing when to do interventions in their professional development, e.g. assessing their understanding and use of central concepts, and how they managed to connect their group assignments and cases with the learning goals and literature in the course. The teachers found the formal virtual learning environment, Fronter, to support and sustain this matter of concern over time. They found it useful that the discussions are first organised by topic, and then by time. In that way it is straightforward to assess how far and how deep the discussions have been. It is also clear for both teachers and students where to find the task assignments, where to submit the reports, be aware of the deadlines etc. They argued that from an institutional perspective, issues of authentication and authorisation are also important.

Students' viewpoint

Students are supposed to learn different technologies during their studies. In general, the students of the master program use many types of technology, which in most cases are chosen by themselves. In recent times, they have tended to choose Facebook, as this is where they are most active, and everyone is familiar with its basic functions.

Whatever the choice of technology, the students said that they used Facebook as a common meeting place outside of their studies. They said that a 'background conversation' took place, even though some courses may have required the use of certain technologies such as wikis and Etherpad.[iii] 'Facebook always lies beneath', one student pointed out, and continued: 'This does something to the use of the other technologies too'.

The students argued that they need a synchronous dialogue that they did not get through technologies such as wikis. 'On Facebook I always receive a response after 5–10 min. I do not have the patience to wait for half a day, which I need to do in a wiki', one student said. They stated that they have high demands for immediate gratification. Because of such a perspective, many other technologies became secondary for them.

Despite the teachers' arguments about Fronter being well-suited for factual discussions, the students chose Facebook as their primary discussion arena.

Some students stated that, when posts were presented on Fronter, the topic had already been discussed on Facebook; only the worked-through results were posted on Fronter. The students regarded Fronter as mostly formal and experienced the threshold for posting there as high: 'I must be factual and professional, must show that I am well-informed', one student opined. The informants all agreed that this was not related to whether the language for discussion was Norwegian or English. On the contrary, the English language was seen as valuable in a sense, as one informants claimed: 'It influences the way we think. We can be liberated from many emotions and be scholars. It becomes in a more formal manner. And Facebook becomes something informal on the side'.

Nevertheless, some students did not want to use Facebook as the main technology for the discussions in the course. They regarded their Facebook account as private and wished to keep it that way. 'I don't want everyone to know that I had a great time at a party yesterday', one of the informants expressed.

The students' matters of concern were diverse. For the purpose of the discussion in this article, we focus on matters that are related to students' social need for interaction with peer students, matters of expectations about opportunities to self-organise their group work and matters of how they wanted to integrate the online course with their everyday media practices. The students preferred and insisted on using Facebook in the online course. The use of Facebook built a sense of intimacy and immediacy in respect to the other students, so the students were aware of the online presence of others, and they got immediate feedback to their online posts from peers. Such immediacy included short comments and likes, an informal way to create intimacy and togetherness in the course.

Supplementary data from the observation of online dialogues

The online dialogues studied showed that most students were engaged in the Facebook discussions. However, there was a discrepancy in the amount of posts within the groups. During the first cohort, most of the posts were published by one person, and in the second cohort, approximately half of the students were in the most active group.

The content of the posts was mostly about organising the time schedule for individual contributions and collaborative work. There were significantly fewer posts aiming at discussing particular topics of the course. Yet, the sharing of relevant articles and publications was to be found.

When studying posts and discussions published on Fronter, these entail only submissions and task-required peer feedback.

Emotional expressions were more frequently used in the Facebook discussions compared to the Fronter discussions. 'Likes' and 'smilies' were often used on Facebook, while on Fronter, such emoticons were only used a couple of times.

Social presence on Fronter vs. Facebook – a question of formality and intimacy?

In the beginning of this article, we asked three questions related to social presence, the agency of the technology and the conditions for dialogic pedagogy. From the analysis of data, two emerging themes were identified. We will now address the initial questions according to these themes.

A matter of control

Despite the course being delivered as fully online, some of the students of the 2013 cohort chose to meet physically for the first and only lecture in real time. According to Tu and McIsaac (2002), this physical closeness might create intimacy between them, which provided an anchor and a certain group strength when trying to change the teachers' choice of technology. When the teachers were called to the physical classroom, however, the videoconference was completed, and as a result, the online students were not part of the continuing discussion and were left out of any social attendance. When the students present on campus claimed that the whole group of students stood behind the Facebook proposal, they made the impression of excessive psychological immediacy within the group, through the consensus in case. Consequently, the student group acted with a strong negotiating power, claiming that there was one unified matter of concern amongst the students, which later appeared not to be true. In addition, the students' group exposed their strong ties to Facebook as a technology for interaction and dialogue.

When one student alone created a Facebook group, this could be interpreted either as a measure to increase the psychological immediacy within the group or as an attempt to strengthen the control of the course at the expense of the teachers. A protected Facebook group for the students could contribute to strengthening the social presence of the students through intimacy and immediacy. At the same time, the teachers lost some of their control and authority by not having the ownership of the Facebook group and not being able to decide who could become a member. The fact that people not enrolled in the course were invited into the group impaired the professional foundation and thereby reduced both immediacy and intimacy within the group. This could eventually have negative consequences for the relation between the students and teachers. In this setting, we can see that the students use Facebook as a non-human allied in forming an arena for instant social interaction as well as a place for continuing discussion of the dispute. On the other hand, Fronter was a non-human allied in designing a system for the control of deliveries and feedback.

The engagement shown by some of the students present can be understood as a wish to strengthen the physical immediacy within the student group. The teachers' decision to stay with the technology chosen initially could also be seen as a rejection of the students' choice, something that could negatively influence the foundation of social presence necessary for the dialogues in the course. Simultaneously, the teachers' decision could consolidate the student view of the teachers as 'the common enemy', something that could have a positive influence on the internal intimacy of the student group and maybe also the social and academic dialogues between the students. The perspectives reported here show an increasing conflict among engaged actors strengthened by emerging social technologies.

The interview data revealed that the negotiation of technology was not settled at the beginning of the course. Quite to the contrary, the negotiations continued throughout the course period, and in addition to teachers and students, the technologies of Fronter and Facebook were actors with strong matters of concern. This finding is also present in the analysis of the dialogues on Facebook, where the debate continued and hints regarding the dispute were given whenever possible.

'Being on FB'

Generally, the language on Facebook is informal, and the dialogue is characterised by quick answers and comments on questions and suggestions. Several interviewed students expressed that they used Facebook very often and that the notion of 'being on Facebook' had associations of social presence

through an almost physical, and at least psychological, immediacy. Formal and professional conversations could often be spiced up with more personal approaches, the students claimed. In that sense, the students' expectations of the possibilities of social technology make Facebook a strong actor in the network.

Most of the interviewed students expressed that Facebook was a common meeting point outside of their studies. Facebook discussions may thus strengthen the intimacy part of the relations between the students. As dialogues on Facebook can be characterised by short response times, this can manufacture the feeling of physical immediacy. The use of emoticons also contributes to immediacy, and several students said that the threshold to express themselves was lower on Facebook than on Fronter.

Nevertheless, there was no common agreement among the interviewed students to utilise Facebook as the official technology for the course. Some of them experienced Facebook as mainly private, creating too much intimacy, something that according to Short et al. (1976) can create a lack of balanced intimacy and, thereby, disturb the experience of social presence. Hence, the students' matters of concern are diverse and should be considered.

An online course limits the participants from experiencing the body language of the involved others, which can contribute to the understanding of reactions and emotions. This can, to a certain degree, be replaced by so-called emoticons. Such emotional expressions can be considered to be replacement phenomena for physical presence, and as such, it is not surprising that the students are more present in the more private and intimate Facebook setting than in the more formal and substantive Fronter. Such findings have support in Dysthe (2012, p. 53) who refers to Løvlie and Habermas' argumentation for a factual understanding of dialogue, where substantive argumentation takes precedence over an emotionally oriented argumentation. Such an understanding has a breakthrough in pedagogy, Dysthe claims. This can explain the fact that students did not wish to present unfinished arguments and opinions in the formal discussion forum of the course. Conversely, they wished to work through their arguments in an intimate context before these arguments were presented in the formal forum of Fronter.

Concluding remarks

Based on the analysis of empirical data, this article has identified the relation between social presence and dialogic pedagogy as particularly interesting and discussed how and why matters of concern differ for teachers and students. There are specific effects of the two software systems that we used in the online course. These are associated with social presence, such as intimacy and immediacy, which in turn went well with students' media practices on Facebook and the way Facebook met their social needs. The use of Facebook was in conflict with other effects associated with teachers' need for monitoring and control.

The students, when using Facebook, experienced social presence in an online community to a considerable extent. However, the analyses show that some students dominated, and most students were merely audiences for, the dialogue. Facebook dialogues could also have the disadvantage of becoming too intimate, significantly private, informal and unclear. Based on this, not all students wished for such technology to be the official technology in their studies. VLEs as official channels for a discussion forum, however, facilitate a more formal factual learning conversation. The learning language in the current course being English strengthened this.

The discussion on Facebook was lively, informal and in the Norwegian language. Even so, not everyone participated eagerly. As insight into the online dialogues has shown, the discussions were dominated by a few students. Maybe the teachers' rejection worked as a consolidation for the students' social presence in their own student-driven discussion forum. Simultaneously, the dialogue on Fronter was in English and nearly absent. Fronter worked mostly as a place to formally submit assignments. Nevertheless, the formal requirements for everyone to contribute on Fronter led to all students being equally visible. No single person dominated, as in the Facebook discussions.

The agency of Facebook cannot be properly explained through the notion of dialogue as presented by Dysthe (2012) and Flitton and Warwick (2013), as these approaches do not discuss technology as an actor that plays a role in pedagogical dialogues. Rather, an understanding is needed of the entanglement of technology and dialogic pedagogy and how this in turn creates new forms of online teaching and learning. The case studied in this article points out the necessity of technologies that facilitate informal learning conversations between the students and thereby build social presence. However, the quality and nature of these conversations need to be considered. Therefore, it is of interest to further investigate what specific features of technology are more suitable for dialogic pedagogy. It will also be interesting to investigate the relationship between technology, pedagogical design and social presence more closely.

More than ten years after Norway's Quality Reform, there are still great expectations for the potential of technology to offer better-quality education (Fossland, Ramberg, & Gjerdrum, 2013; NOU 2014:5). However, student-active learning is anticipated to be implemented in higher education, while the resources remain the same. It is, therefore, interesting to explore new and effective methods for student-active learning where digitally supported communication and dialogue constitute the backbone.

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[i] Second Life is an Internet-based virtual 3D world.
[ii] Understood as multimodal texts, including websites, video, sound and images.
[iii] Etherpad is a technology for co-writing.