Proposing Learner E-dentity to social presence in digital spaces for learning

Abstract

Social learning is essential in digital learning spaces. However, it can be hard to know who fellow learners are, due to the limited amount and quality of available cues. This lack of social presence could have negative effects on participation, which is the base for social learning. The aim of this paper is to theoretically explore the implications of an explicit digital student identity. Drawing on literature on participation, presence, interaction, and identity, I propose a student e-dentity with the purpose of enhancing social presence and awareness. The implication of such an e-dentity is a more transparent social environment within digital learning spaces.
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1. Introduction

To understand and value an interaction correctly, it is essential to know with whom one interacts (Ke, Chávez, Causarano and Causarano, 2011). In digital spaces only some cues that allow one to read the other, and construct an image of who she is, are present. In text based discussion forums, for example, cues are limited to such elements as e-mail addresses, signatures and language (Donath, 1999). However, also in more advanced digital spaces many cues are lost, which leads to a decreased social presence, i.e. the degree to which users in a digital space perceive each other as real (Gunawardena and Zittle, 1997). This could serve as a block when it comes to user interactions. In digital learning spaces, interaction between users (learners and teachers) is possible to a various degree. Socio-constructivist learning relies on Vygotsky’s (1978) theories, and holds that learning is constructed socially in the meeting between people. In other words, interaction between users is vital for learning. Interaction can take diverse forms, and meaningful interaction (Woo and Reeves, 2007), i.e. interaction leading to knowledge construction, can be supported on different levels by instructional design and system design. Interaction can be supported by instructional design by for example exercises demanding social collaboration. System design can support interaction by for example offering a space that facilitates and/or invites to interaction. In this paper, I will explore the latter. I have often experienced a lack of social presence within digital spaces for learning, making me feel as if I was all alone within the space, even though I have known others were there at the same time. Similar feelings of lack of social presence has also been described in literature (Kear, 2010). This has made me wonder what is lacking within those digital spaces.

Learning communities rely on participation. Mutual engagement, which is one of the bases for Communities of Practice (Wenger, 2000), evidently requires interaction. Hence, it is vital – ultimately for successful learning – to facilitate interaction in digital spaces. A way to approach this could be to allow for more cues about peers, by the use of expressed identities. Digital identities has been discussed in relation to e-portfolio, with the purpose to facilitate administrative work (Ittelson, 2001), or in order for the learner to promote oneself to possible employers (Bauer, 2009). However, as far of my knowledge, there has been no discussion in literature of digital identities with the purpose of enhancing a feeling of social presence and awareness. Hence, the aim of this paper is to theoretically explore whether an explicit digital student identity could reinforce social presence and awareness, enhance participation, and ultimately strengthen learning. This leads to the following research question:

Q: What would be the implications of an explicit digital learner identity for social presence and awareness in digital learning spaces?

The discussion on identity in this paper concerns the social aspects of “the I”. However, identity in this paper is not related to any administration or verification issues. The paper is organized as follows: In the next section, “Method”, I will describe how the study was performed. Following, in “Social Learning - Theoretical Foundations”, I will unfold the papers theoretical foundations of socio-constructive learning and related terms. The next section, “Digital Identity – Related Research”, shows previous work regarding identity. In “Discussion” the findings derived from literature is developed into a proposal. In the last section, “Concluding remarks and further research”, I conclude the paper and describe further direction of research.
2. Method
This paper is based on a literature study. The main database used was SCOPUS. The search words mainly used were learning (in the forms of e-learning, digital learning and Technology-Enhance Learning) in addition to identity, presence, interaction and participation. Initially, my main interest was on journal articles published in 2010 or later. From chosen articles, from here on referred to as important hits within stated search criteria, I would track articles in the three directions of back, forward and parallel. Back-tracking would refer to checking apparently interesting references of the important hit. Forward-tracking would be exploring those citing the important hit, which was often a manageable count since the important hits would be recent publications. Parallel-tracking would be to check “related articles” provided by databases such as Science Direct. During the tracking, any article could be chosen to be an important hit, and the three directions (or any of them) would be tracked also on this layer. Hence, the search method is multi-layered and uncontrolled to the extent that any tread could go on until my interest would be lost and the web of tracked threads could end up uneven. However, I make no claim of having explored the whole web of threads; there are undoubtedly holes in it. However, I do experience having arrived to certain saturation, where several threads have articles in common. Additionally, related articles of my previous knowledge and by peer-recommendations was incorporated into the study, sometimes as important hits. A limitation of the study model is that there is a risk of getting focus in a certain part of the whole, and get tangled in there. This could lead to that other relevant areas could be involuntarily excluded. This gives the model a deep, rather than broad approach. I have then used the findings in literature to interpretatively value the implications of a digital student identity. This is done by using the theories on social learning, presented in the following section, as a foundational setting, to advocate the shortcomings and needs of digital learning situations related to social issues. Related research on digital identity, in section 4, was used to value how digital identities are used, and how they could be used in order to enhance digital learning situations.

3. Social Learning - Theoretical Foundations
The fundamental theoretical approach on which this paper relies is social-constructivist, based on Vygotsky’s theories on learning, which in short means that learning is constructed in the space between people (Vygotsky and Cole, 1978). Knowledge is built socially and only as a second step it is internalized. An important concept of Vygotsky’s theories is the “zone of proximal development”, which refers to the distance between learners departure knowledge state and where the learners knowledge can be after the interaction with another or others (ibid.). Hence, the aim of an effective learning situation would be to arrive as close as possible to the far boundary of the zone of proximal development. Consequently, it is vital in a learning space that social interaction and participation is facilitated. However, quality of interaction is of superior value to quantity of interaction in order to reach social learning (Garrison and Cleveland-Innes, 2005). Of main interest in learning situations is meaningful interaction (Woo and Reeves, 2007), i.e. interaction that leads to knowledge-construction. However, in a study based on a mixed approach of qualitative and quantitative method, it is concluded that a major part of available study time was spent on social (only) interaction rather than knowledge-constructive interaction (Shane, 2006). The reason was that the social only phase preceded and served as grounds for the knowledge-constructive interaction phase. Hence, to shorten the introductive socialization phase would be valuable for learning.
Learning communities builds on participation. The work regarding Communities of Practice (Wenger, 2000) also has a socio-constructive approach. In Communities of Practice it is essential that the members of the learning community are mutually engaged, and that they participate and share knowledge and work together towards a common goal. The theoretical framework of Communities of Inquiry describes three essential parts in order to arrive to successful learning, namely Social Presence, Cognitive Presence and Teaching Presence (Garrison, 2007). The three parts work in synergy. While Communities of Practice and Communities of Inquiry have much in common in regard to learning approach, they depart from different settings and perspectives. Communities of Practice is descriptive and departs from practice within organizations. Communities of Inquiry has its setting in Higher Education and is prescriptive. However, participation is at base for both views of learning communities. Hrastinski (2008) defines online learner participation as:

 [...] a process of learning by taking part and maintaining relations with others. It is a complex process comprising doing, communicating, thinking, feeling and belonging, which occurs both online and offline. (p. 1761)

Important to note in the definition is that thinking, feeling and belonging are ways of actively participating, equally active as doing or communicating. Negative effects on engagement and participation can come of low social presence (Kear, 2010). Social presence is the degree to which users in a digital space perceive each other as real (Gunawardena and Zittle, 1997). Social presence, as concerning social interaction without learning purpose, is a natural first step, but is not enough to lead to learning without cognitive and teacher presence (Garrison and Cleveland-Innes, 2005). Hence, however not independently a key to success, social presence is a crucial part to attend to, when designing digital learning spaces.

4. Digital Identity – Related Research

Social presence can be reinforced by system design, for example by enabling user profiles, since they can offer a feeling of knowing each other better (Kear, 2010). Drawing on previous research, Kear (2010) describes that beneficial parts of user profiles could be photos, name, interests, résumés and location. In her study based on interviews, Kear (ibid.) finds that a problem concerning social presence specified by learners is the need to get to know something about each other. This illustrates the frustration triggered by impersonality in digital learning spaces. In the same study, students reported appreciating an existing history function, allowing them to check who had read posts and when. This might seem intrusive on integrity, but allows for an awareness of peers’ actions, valuable for feeling accompanied through the learning experience. Furthermore, it reveals reading peers, i.e. “silent” but yet active social participation (Hrastinski, 2009). Awareness about peers’ activities is a social aspect which is only partly covered by interactions. Transparency in a learning situation can enhance awareness and means that users can have “...insight in to each other’s activities and resources” (Dalsgaard and Paulsen, 2009, p. 2). Once peers become visible, they become potential partners and resources (ibid.). Hence, transparency is a social attribute with the potential to contribute to a more open and inviting digital learning space.

In relation to Communities of Practice, Wenger (2000) deals with identity as something in between individual and community; someone’s identity is influenced by both. This could be described by that both our inner self and our context/culture influences how we experience and present ourselves.
Additionally, identities are continuously changing, and learning in itself is one thing that influences this change (ibid.). In digital spaces, it is essential to know the identity of those with whom we interact, to be able to judge the validity, and to properly understand the interaction (Donath, 1999). Equally important is it for the trust in the other (ibid.). In a recent study (Ke, Chávez, Causarano and Causarano, 2011), identity presence in online discussion is shown to have a correlation to knowledge-constructing interaction rather than of only social interaction (interaction without purpose of learning about the study object). Hence, knowing more about the other allows trust, understanding and judgement of validity which in turn offers fertile ground for learning. However, there are reasons to evaluate to what extent to make individuals explicit. In a study on design of online communities (Yuqing Ren, Kraut and Kiesler, 2007), it is argued that personal knowledge of each other could increase off-topic interactions. The study builds on social theory and is in contradiction to the studies earlier in the paragraph. However, since learning communities (mostly) start out with a common goal (of learning), it is defendable that knowing more about each other in order to promote interaction could yet be profitable.

Identity has been discussed in literature regarding e-portfolios. While reminding that the initial purpose of e-portfolios is tools for learning (opposed to pure assessment), a social portfolio is recently proposed (Garrett, 2011). The design model for the social portfolio includes ease of use, social learning and ownership as predictions of user satisfaction. The approach also increases social learning (ibid.). E-portfolios are also mentioned to enhance self-awareness, but the social portfolio also contributes to the awareness of peers. In a short communication, Ittelson (2001) requested a student e-identity. The e-identity would, according to Ittelson be an administrative tool for educational institutions and an extended e-portfolio. The purpose was mainly assessment, and an identified problem was security and safety issues. Bauer (2009) refers to Ittelson (2001) regarding student e-identity in his reflections on the use of e-portfolios. His experiences of an Open Source e-portfolio software is at base for his view that e-portfolios are a good way of building digital student identities. He does, however picture e-portfolios as only one part of three needed to create the digital student identity. The other two parts are Personal Learning Environment and Social Network. The main objective for a digital student identity is, according to Bauer (2009), self-promotion, for example towards potential employers. Ravent (2007) also connects e-portfolios with digital identity, and ask weather “...ePortfolio being the mere projection of one’s identity?” (p. 228). He points to software developers challenges of single log in to connected systems, those user owned and those organization owned, and the demand of users to plug their e-portfolios to their existing social networks (ibid.). While pictured as in favour of the learner, there are also obvious administrative purposes. Those purposes are even more obvious in a recent publication by Ravent and colleagues (Ates, Ravet, Ahmat and Fayolle, 2011). In a position paper published in 2009 (Ravet), he lifts the importance of interoperability of e-portfolios, as well as the essentiality of them being student owned. Evidently, digital identity and e-portfolios are closely related.

5. Discussion

Drawing on the previous section, it is essential for learning to facilitate and invite to knowledge-constructing user-interaction. However, when interaction happens face-to-face there are many cues that we are experts in reading: a twitch, a nod, a yarn or “that look” etc. This has been practised since the beginning of mankind. However, when we move interaction into digital space, we are all
I find it surprising that no-one has of yet taken the term of e-dentity, offered and left hanging by Ittelson (2001), and turned it into something real. Literature regarding use of e-portfolios have referred to Ittelson’s e-dentity when advocating the usefulness of e-portfolios when building a student identity online (Bauer, 2009). However, the purpose has been self promotion, making one’s identity visible to other outside of the learning situation such as for example potential employers. Other purposes of digital identities related to e-portfolios (Ravet, 2009) have been, in accordance with Ittelson (2001), of administrative reasons. However, a danger with the identity track is when it starts including control, as is approached by Ravent and colleagues (Ates, Ravet, Ahmat and Fayolle, 2011). Administrative and control issues comes with inherent security risks, and one might also expect problems with user acceptance. However, a useful contribution from research on an administrative kind of identity, also valid for my approach, is interoperability and user-owned identities (Ravet, 2009).

To compensate for the lack of cues in digital spaces for learning, I propose a universal learner identity that can be migrated into various digital learning spaces: the learner e-dentity. The e-dentity that I propose is not just an e-portfolio, but rather a next step of self representation. It should be the representation of “the I” in digital learning spaces – the electronic I. This e-dentity contains personal information, such as name, image, areas of interests or whatever the learner wishes to put forward in order to tell others who she is. Additionally, the e-dentity also contains the student’s portfolio, and previous knowledge. There are also meta-data connected to the e-dentity, showing where the learner is within the digital space. This is to create awareness and transparency (Dalsgaard and Paulsen, 2009) to allow students to feel accompanied through the learning experience. Functions such as micro blogging/status line are also part of the student e-dentity, in order to be more alive and increase transparency. The e-dentity must be student owned, and under complete control of the owner. An important reason to this is that identity is ever changing (Wenger, 2000). Hence, the e-dentity must be just as changeable. Since the student is the owner of her e-dentity, she can choose to which systems to plug the e-dentity, which functions that should be activated and how she wishes to use those functions. The e-dentity can be migrated and is universal / platform independent, so that the student can really build up her digital identity. In this way the student will not need to create an account and start over every time she changes system. Much of this is in accordance with Bauer’s (2009) description of an ideal e-portfolio; the additions not described by Bauer are the meta-data regarding student actions and the interaction functions such as the micro-blogging. Furthermore, the purpose of the e-dentity is another, namely to enhance social presence and awareness. Although, many functions might be in common with the e-portfolio, the use is different. Additionally, due to the widespread misconception of e-portfolios main purpose being assessment, I strongly suggest that
e-dentity is a better suited label for the digital student identity. Also, the traditional use of portfolios, for example among artists, has been to showcase one’s abilities. To express one’s identity is something different and should not be confused by terminology shortcomings.

An expressed student identity can only advance the learning situation to a certain extent. Thoughtful instructional design and additional aspects of system design are still crucial in order for the e-dentity to be able to contribute its potential. Teachers are also users in a digital learning space, and teacher e-dentity could also be of value if compared to the above. Not to forget, the e-dentity first of all facilitates social presence. However, following the framework of Communities of Inquiry (Garrison, 2007), also cognitive presence could be facilitated by the e-dentity since it makes such aspects as previous knowledge explicit. Knowing about peers’ previous knowledge could invite elaborate, subject specific discussions. Offering explicit identities could actually decrease the only social interaction with the purpose of getting a better picture of each other, and allow learners to more directly advance to knowledge constructing interaction.

6. Concluding remarks and future research

In this paper I have proposed a possible approach to enhance social presence and awareness in digital learning spaces. The proposition is a learner e-dentity, which makes student identities explicit in digital spaces. The implications of learner e-dentities would be a more transparent social environment within digital learning spaces. Cues available in physical spaces are lost in digital spaces. However, explicit learner identities could compensate this loss by offering more, however other, cues. As a first step, the validity of such an e-dentity has here been shown built on literature. However, design of the e-dentity and practical implementation are subject to future research. Student acceptance, practical use validity and practical feasibility are parts of that future work.
References


