

ICT-INTEGRATION IN LEARNING ORGANISATIONS: POTENTIALS OF THE 'INTERMEDIATE SPACE' FOR VIRTUAL LEARNING ENVIRONMENTS

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Abstract

This paper explores the concept of 'intermediate space' as a method of understanding the role of learning spaces in the development of technology enhanced educational organisations. Sesink (2002) refers to the English psychoanalyst and paediatrician D. W. Winnicott (1971) and describes intermediate space as a transitional object or phenomena: the potential space, the area of joint cultural experience for learners where personal knowledge, development and social interaction promote a learners' initiative and individual learning. To facilitate such constructivist processes requires an encouraging and protected space — one which promotes active, individual and reflective knowledge construction (Jonassen, 1991). An understanding of the role of 'intermediate space' in educational organisations in both virtual and 'real' architectures can encourage the development of process-related media competences, e.g. the ability for self-organised learning.

Intermediate Room

With the concept of the intermediate space Sesink (2002) refers to the English psychoanalyst and paediatrician D. W. Winnicott (1971) who describes the intermediate area as a space which exists neither only in the imagination nor only in the physical reality. For Winnicott this third area facilitates the experimental meeting of individual imaginations and the real existing world. As an example, he refers to a child submerged in itself whilst playing, operating with real objects which are converted in the service of the child's creative imagination for other purposes; thus the child successively develops trust in its own creativity. For Winnicott, to create space for such an encounter, it requires both protection from external disturbances and room for individual knowledge construction through social interaction. A metaphorical use of the concept of space could be seen as relevant in pedagogical considerations in higher education: giving the learner space in order to facilitate the development of self-determination, autonomy and participation. For Klafki (1996) the goal is to provide breathing space for growth, independence and self-organisation of the learner. The metaphor of space is also

regularly applied to the period of learning: the learner is to be given a space (of time) for learning; time, where one is relieved of other responsibilities, and can concentrate on one's personal learning process without distractions. Social interaction forms around an accepted abstraction of presence in communities based on both synchronous and asynchronous communication.

There is an ongoing debate as to what the terms space and place (Wahlstedt et al. 2008; Whitworth 2008) and presence (Tu 2000) mean when considering virtual learning environments. The construct of intermediate space has value within this debate as a method of conceptualising educational environments; such a construct has the potential to provide a framework within which emerging issues of space, place, presence and particularly the learner as a socially situated individual, can be considered. Rather than focusing on the technological attributes of a virtual environment or the organizational and political issues related to the design of such environments (though these issues are of importance), intermediate space allows for a detailed analysis of the many facets, drivers and influences of a given educational environment, thus leading to a more holistic approach to learning environments and the learner as a social being. It can be argued that understanding the changing nature of educational environments and the role of space for learner's self-organisation allows teaching staff to be more successful in encouraging learner interactions, connections and exploration of individual potentials and boundaries. Additionally, a deeper understanding of such spaces enables the organisation to consider how the architecture of learning environments can be constructed and developed in a form that encourages connectivity, community and self-organisation. This paper considers whether the nature of interaction within a particular attribute of virtual educational spaces i.e. asynchronous discussion boards, can be considered to be within an intermediate space in Winnicott's sense. To explore this, the paper focuses on the effect of virtual seminars on the self-organisation of student groups.

Methods

A comparative analysis of interaction within face-to-face and online learning environments was used to explore this area. The analysis used data from within a postgraduate Research Methods module in the school of Nursing, Midwifery and Social Work at The University of Manchester. Data was collected from two cohorts of students; in the first year there were three face-to-face tutorial group and two online seminar groups. Thirteen audio recordings of face-to-face seminars were made and all of the discussion boards were compiled and downloaded. In the second year there were three face-to-face and three online groups (analytic focus was placed on the online interaction so only the data from the online groups was retrieved). In addition, interviews were carried out with representative samples

from both years of students, and quantitative data was obtained using WebStats software, which outlined the patterns of online interaction. All students and staff involved in the project gave full written consent and were exposed to the same instructions and learning resources. The analysis explores the ways in which topics are negotiated in online discussion environments by concentrating on one of the distinctive characteristics of face-to-face educational dialogue; namely, 'introductory discussions'. The analysis here uses Sacks's concept of false-firsts (Sacks 2000) to describe the ways in which preliminary issues are dealt with in face-to-face seminars, and proceeds to examine how these occur in online environments. It is demonstrated that this distinctive feature of traditional learning forums is negotiated in very different ways in online learning environments and that the nature of a virtual learning environment promotes a more direct and self-organised engagement with the subject matter.

A central impetus for the following discussion comes from observations of two key characteristics of face to face seminars: firstly, the dialogue in these traditional discussion environments is negotiated — the order, length, and frequency of the conversational turns of participants are negotiated *in situ* by the participants with reference to normative organisational practices (i.e. the intersubjective sense of how discussions ought to proceed in the context of the power relations, institutional politics, personality types and individual discussion preferences that constitute the peculiarities of particular discussion environment). It has been shown that one of the characteristics of the negotiated feature of this talk is that the topics under discussion are in constant flux, changing as each member of the discussion brings their own interpretation and discussion agenda to bear on the turn and topic negotiation process (Campbell et al., 2008).

Secondly, and related to this, particular organisational practices are often used by tutors to place formal restrictions on dialogue practices which place boundaries on when specific topics can be discussed. One common practice is to demarcate certain sections of talk that are used to deal with organisational matters — such as homework, passing on information, the absences of participants, or course organisation — thus leaving clear sections of dialogue that can be used to pursue the designated educational issues (Stokoe, 2000). The pragmatic feature of this practice is to limit the amounts of interruption to the talk. The ability to make such impositions arises through inter-subjective orientation to mutually recognisable appropriate actions; status positions or power positions confer the right or mandate to define the limits of discussions, but they only do so because people treat them as doing so by acting towards them in an appropriate manner.

In concentrating to organisational issues, we intend to draw a distinction between practical educational matters (such as the setting of homework, dealing with queries, chatting about work practices) and actual discussions of educational

materials. It must be noted from the outset that to make clear distinctions between organisational and educational issues can be problematic as the two are both inexorably intertwined (Yonge & Stables, 1998) and contextually contingent (Stokoe, 2000). It should be recognised therefore that within seminar discussions, the status of particular issues as either relevant, academic, practical or whatever is a matter of interactive negotiation within the particular seminar in which a wide range of factors will play a part — including the culture of teaching within the institution and the power relations of the seminar.

Face-to-Face Seminar Dialogue and False First Topics

The term false-first has been used in Conversation Analysis to describe discrete sections of talk that precede topic relevant discussion sections. These false-firsts segments function as normative procedural approaches to coming round to particular context relevant talk (Sacks, 2000). Stokoe uses the term in relation to discourse within face-to-face university seminars to describe the opening sections of talk within face-to-face seminars in which peripheral issues are discussed. She suggests that within seminar dialogue participants often engage in such preliminary talk in order to deal with organisational issue such as discussing homework, passing on information, the absences of participants, or organising the session. An example of this kind of discussion is provided in Figure 1 in which a tutor from one of the face-to-face seminars negotiates with students over who is going to chair the seminar.

Figure 1: Face to Face Dialogue

- 1 (S1) Ri:ght. (.) Oh Ka:y (.) Who's chair toda:y?
- 2 Pause (5.5)
- 3 (T) You were and I took over last week [dint I]
- 3 (S2) [I
know]hah[ahaha]hahahahaha
- 4 (T) (Laughin) [Sorry] hahahahn 5
hnhnhnhn
- 6 Pause (2.5)
- 7 (T) I'll let you av another go hnhnhnhahahahahahahahaha
- 8 (S2) [oh chears] hmhm
- 9 Pause (1.5)
- 10 (S2) Well I'll star:t then
- 11 (T) Go on.

Some of the false-first topics that are dealt with in face-to-face seminars arise specifically because the seminar *is* face to face. For example, reporting on the presence or absence of students within a specific class is necessary because of the accountability of all parties to be present within the seminar at the specified time. Such an issue may be less likely to arise online because participants co-operate in the seminar at different times and places. However, other topics that usually function as false-first type issues may be potentially generic: discussions about how to organise activities or informal talk about the experience of doing work (how hard or difficult certain activities have been) constitute interactional work which, while perhaps not representing the key function of traditional seminars, nonetheless may be regarded as forming an important aspect of virtual discussion environments. Due to the flexibility asynchronous settings provide, learners attending online groups need to use other strategies to integrate (and bind) fellow group members. These could be coordinating the collaborative work or preliminary talk which is not dealing with organisational matters but rather provides social bindings; such strategies contribute to the coherence of the group

and individual participants' motivation (Zentgraf et al., 2006). Such hypothesising illustrates that there are outstanding questions about the differences between the organisational relevancies within the two learning environments.

Examining the Dialogue in Postings

As we have seen, in face-to-face seminars topic relevant discussions are often postponed until certain business at hand matters have been dealt with. By looking at the preliminary postings within discussion boards we can gain a sense of whether a similar approach is used in online discussions. The data from the second year of the course demonstrate that, with very few exceptions, students' immediately engaged with work tasks with no preliminary remarks at all (only 6 out of 113 preliminary postings did not adhere to this pattern). Within the preliminary postings that did deal with other issues there were three issues that were raised. The first is demonstrated in Figure 2 where a student used the beginning part of the posting to voice concern about the process of participating in online discussions ("am I doing this right?") and to solicit for comments on the work ("constructive criticism most welcome!"). The contingent issue here then is how to use discussion boards appropriately. Although it was raised at other places within the discussion, this issue was not raised by any other student as a preliminary topic.

Figure 2: Am I Doing This Right?

<p>C12qual</p> <p>am I doing this right? I'm feeling a bit unsure and</p> <p>all at sea with this at the moment - constructive criticism</p> <p>most welcome! Exercise 1 2 – the theoretical perspectives adopted in the</p>
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A second issue to be raised in the preliminary postings is shown in Figures 2 and 3

Figure 3: Hard Work

<p>e12quant</p> <p>Phew!! That was hard work! I'm again very tentative about much of this. I'm not sure if I've understood/applied the terms correctly.</p>

Finally, Figures 3, 4 and 5 show students talking about being the first to post to the board.

Figure 3: Beaten You All

c13qual

Guess I've beaten you all to this one. I think this has been discussed in a round about way through the previous two activities but here is a little more to deal with some of the finer points - I hope! (...)

Figure 4: Friday Night

c41qual

Hi all, I know this is really sad to post things on a Friday evening when I should be out enjoying myself in other pursuits other than academic!!! However, I'm not sure when I'll be able to post some of these activites in the next week to I'll be 'sad' for tonight!!!

Figure 5: First to Post

c51qual

Hi everybody. I felt a sense of relief when I got to this stage of the programme but now I find myself posting first to this topic with feelings of anxiety because there seems to be a lot of stuff to take into account, which I'm not sure I fully understand - Well, here goes

These preliminary postings demonstrate that, in the case of these tutorials, there were no organisational issues that needed to be dealt with to prevent students from proceeding with the tasks at hand. Although there were subsidiary topics that were addressed by preliminary postings, these were not contingent matters, were not exclusively confined to preliminary postings, and concerned in the main emotions i.e. relief, anxiety etc. It could be argued that members of the seminar groups brought their personalities to bear through expression of emotion and individual perception however raising such matters in these postings did not prohibit the

discussion of the prescribed topic of the seminar. In all of the above cases the students were able to integrate this subsidiary matter into their engagement with the set work.

Where tutors' posts occupied a preliminary position within a discussion board, they used their opening remarks to outline the purpose of the discussion board by providing instructions for the methods of participation. Where they occurred then, tutors postings in preliminary positions dealt with basic organisational issues of the seminar in a similar way to how opening dialogue might in face-to-face seminars. However, because of the pre-specification of this information (all instructions were part of the online unit within the VLE), even these comments were actually unnecessary to the progression of topic relevant discussions within the seminar.

Frequencies of Opening Postings

Each of the three groups in the second year of the course involved a far greater instance of preliminary postings by the students than by the tutors (Table 1). For example, only 3 of the 46 preliminary posts from group B came from a tutor. These figures demonstrate the minimal extent to which tutor were involved in acting as mediators of student discussions.

Table 1: Initial Postings in Year Two

Group	Number of Initial Postings	Number of Initial Postings by a tutor	Number of initial Postings by a student
A	39	1	38
B	46	3	43
C	28	3	25
All Groups	113	7	106

However, within the first year of the course, one of the groups displayed a discernibly different pattern of usage. In this group one of the tutors played a dominant role throughout the seminars, and provided nearly two thirds of all of the preliminary postings of the group (Table 2).

Table 2: Initial Postings in Year One

Group	Number of Initial Postings	Number of Initial Postings by a tutor	Number of initial Postings by a student
A	33	20	13
B	34	4	30
Both Groups	67	24	43

There is an increasingly popular view within the education community that creating independent learners who can function with minimal dependence on tutors is to be regarded as a key goal within pedagogic practice (Mezirow, 1983). This analysis displays the potentially facilitating nature of online asynchronous discussion boards as environments in which work can be self organized by students, and tasks addressed immediately by students, without engaging in preliminary discussions about other business, and in which there is no need for negotiations from tutors to make this come about. The analysis implies that asynchronous discussion forums may be particularly appropriate environments to pursue constructivist objectives.

The point then is not that there is necessarily one clear discernable pattern of organisation within virtual seminars, but merely that such learning environments can display patterns of organisation which are distinct from those generally found in traditional face-to-face learning environments. To the extent that online discussion groups entail integration of group-binding talk in immediate participation from students without preliminary tutor direction or instruction within the discussion group, asynchronous discussion environments appear to provide more autonomy and space for learner's self-organisation. Preliminary directions from the tutor are not dominating learner's interactions, they exist as part of the deliberate design of the online programme, which, in Winnicott's terms, could be seen as the good enough environment. Therefore from this analysis, online discussion environments can be said to provide an intermediate space where students can, independent of the tutor and the physical environment, engage as a group in the educational experience at hand.

Conclusion

Winnicott's intermediate space is a facilitating environment for self-organised learning processes. The intermediate space is a transitional phenomenon, which

depends upon individuals' experiences in connecting and separating inner world and outer reality. Thus the intermediate space provides breathing space or free space for individual growth, creativity, autonomy and self-organisation of the learner. In the online discussions that are the focus of this paper, the virtual environment facilitates students' immediate engagement and exploration of the subject matter to hand. The postponing effect of preliminary talk experienced in face to face seminars is significantly reduced, whilst (social binding) emotional issues are integrated into posts on educational matters. This could be interpreted in the following way: online collaboration per se is more effective than face to face interaction, because the technical architecture focuses social interaction in an educational setting. Good enough (not perfect, but adequate) virtual environments create space for learner's autonomy, enable self-organisation, facilitate social interactions which accompany the discussion of educational materials and can reduce reliance on tutors as organisers or leaders. If social interaction is embedded within educational matters, this provides continued motivation and creates social bindings whereby learners are encouraged to communicate and reflect on the educational experience at hand as human beings with social needs. This encounter with both individual and object worlds (here: set work, fellow group members and the virtual environment) could be described as an intermediate space, a space, 'where cultural experience is located' (Winnicott, 1971, p. 118) and where online socialisation, information exchange and knowledge construction (Salmon, 2000), rather than being stages of interaction are formed reciprocal.

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