ONLINE DISCUSSION BOARDS – FRIEND OR FOE?

Mark Northover
Centre for Learning Technologies
UNITEC Institute of Technology, Auckland, NEW ZEALAND
mnorthover@unitec.ac.nz

Abstract
This paper summarises some of the important features of online discussion boards, and some reflections from my experience in their use as both a graduate student and a staff developer. As a student of the UNITEC Master of Computing programme for the past three years I have experienced the use of discussion boards by a variety of tutors, and have used these experiences to inform my practice as a staff developer in the use of Blackboard at UNITEC. This paper brings these ideas together in a form that will promote better understanding of how effective learning situations can be developed, delivered and assessed.

Keywords
Discussion boards, online learning, Blackboard, computer-mediated communication, collaborative learning

Introduction

With the increasing use of computer-mediated communication systems (CMC) as tools of the tertiary educator's trade, the effectiveness of these tools must be monitored and maximised. For some years now tutors and students have become increasingly familiar with a broad range of IT-based communication media – email, listservs, IRC, web-boards, video and voice over IP, etc. In many tertiary institutions (including the employer of this author) tutors are encouraged to make use of the online facilities placed at their disposal, without always being equipped to use them well.

While many tutors are content to see their online courses as a means of providing flexible access to content (notes, lectures, assignments, course outlines, etc), many more are extending the potential of the web to provide authentic learning opportunities. Discussion boards are frequently used at UNITEC to provide these opportunities, extending the learning space beyond the class contact hours. The ways that tutors can encourage and support students to make the most of these extended opportunities is the subject of much research and debate. This is a new milieu for us all – tutors and students – and we continue to learn from our experiences.

Why Use CMC?

Online course delivery systems such as Blackboard, WebCT, Course Compass, etc are being increasingly seen as essential and integral components of tertiary education. They are not always promoted for sound pedagogical reasons. I suspect that such systems are often adopted because 'everybody else is', or 'our students expect it' without due consideration to 'how can they improve the learning of my students?' It is important to be sure that the teaching and learning styles are not being driven by the technology – rather, that the technology is seen as providing a better means to achieve the fundamental aim of education – better learning.

One of the main contemporary driving forces behind flexible course delivery is the growing proportion of 'mature' students in our programmes. Increasing numbers of adults, employed in the workforce as parents or as other productive members of society, are returning to part-time study for interest or career advancement. The ability for these adults to maintain contact with fellow students and tutors, without spending large amounts of time on campus, is a prime feature that facilitates their study.

While other means of computer-based communication, mainly email, have been commonly used in flexible delivery, this paper focuses specifically on threaded discussion boards. There are clearly pros and cons in the use of discussion boards as opposed to other forms of communication (both traditional and online), summarised in the following table:

Purpose	Pros of discussion boards (db)	Cons of discussion boards
Tutor-Student communication	• questions and answers are available to others • ensures all information is equally shared • permanent record of all postings	• dependent on accessing db to read postings • email tends to be more readily accessed
Student-Student communication	• group db gives a convenient place for collaborative work • students learn from each other • accessible at any time • threads of discussion are clear • contributions can be composed and well-considered before posting	• as above • language confidence can be a barrier to willingness of contributions • 'lurking' can be difficult to discourage if participation is required
'Personal' contributions, eg personal diary/journal	• group of one can provide a personal db to be used as a journal • some WCMS can provide an anonymous forum for contributions	• 'class' discussions are a public forum for all members of the course
Assessment	• clear archive of all contributions for assessing • discussion can be closed at the final date	• requirements for assessment must be clearly stated • can be difficult to determine 'original' thought

Table 1: Advantages and Disadvantages of Discussion Boards

The benefits of collaborative 'student-student' online communication are an important aspect of discussion activities. Oliver states:

> *Creating collaborative and cooperative settings for learners provides many advantages for the designer and the learners. As learners collaborate they articulate their ideas and thinking and this contributes in large ways to developing their understanding (Oliver, 2000)*

However, it must also be recognised that for many students (as well as many tutors) the online environment is a new and unfamiliar one, in which students must learn to take more responsibility for their learning:

> *They will require scaffolding to move from the beliefs they already hold about learning, to think differently about their role as a student and the discipline and approach to study that this may require. (Lefoe, Gunn & Hedberg, 2002)*

Making Discussion Boards work

A discussion board activity can be seen by the tutor as taking the place of a face-to-face, classroom discussion. While this may sometimes be the case, it can also be much more, depending on the structure and purpose of the activity. Anecdotally, there are many and varied reports of the productive activity of discussion boards. There are a number of aspects that contribute to their usefulness to students:

- Value – make the discussion as inherently valuable to the students' purpose (ie meeting learning outcomes) as possible;
- Challenge – a discussion that becomes boring or predictable will cease to be of interest;

- Non-threatening – the discussion environment must be a 'safe' one (see comments on group dynamics later);
- Feedback – students must have confirmation from the tutor that they are 'on the right track';
- Encouragement – most students will respond better with an actively encouraging environment. The tutor has a prime responsibility here, but this will often also come from fellow students;
- Authentic – realistic and meaningful tasks increase the value to the students (Herrington & Oliver, 2000); building knowledge which is practical, contextualised and relevant (McLoughlin & Luca, 2001).

In certain circumstances a discussion board can generate its own value to the student. With a sufficiently self-motivated student cohort, and the right levels of facilitation by the tutor, a discussion can provide a fertile medium for the sharing and development of ideas. Full participation by all students may or may not be considered important, and there are techniques for encouraging this. Ellis (2001) reports a variety of responses of students in their willingness to participate, ranging from essentially assessment-focussed, to valuing the discussion as a collaborative environment where 'if you are willing to help other people then they will help you'.

In general, however, participation will only be genuine and willing when students believe in the worth of their efforts. This worth may translate into grades – suggested by other authors (Salmon, 2000, p93) as the most likely means of getting full participation. I also believe that students will recognise an activity that genuinely enhances their learning. Either way, the discussion will only be supported productively by students who have bought into its worth and validity.

It is also crucial that students see learning as a collaborative activity. If students believe that assessment is competitive – that only a certain percentage can pass, or that grades must fit a normal distribution – then sharing of ideas will be reluctant and minimal. It is necessary for all class members to recognise that the collective content of a discussion forum is to the benefit of all. It is the responsibility of the tutor to ensure that students buy into the worth and purpose of the discussion board, and to encourage enthusiastic involvement in its activities. When done well, the main challenge can be in limiting the flow of postings and keeping the content on-task.

The Role of the Tutor

The online presence and facilitation/moderation role of the tutor is one of the keys (though not necessarily the most important) to the success of a discussion activity. A tutor cannot expect a discussion to proceed productively without any input or effort on their part. This is directly analogous to a face-to-face tutor setting a starter question for a class, then sitting back quietly, expecting the ensuing discussion to stay on track. This will not happen in a traditional classroom, and it is unlikely to work in a corresponding online forum.

The use of tutor-mediated discussion boards can go a long way towards meeting the defined goals of Laurillard's conversational framework for teaching. Students have a common space for reflecting and comparing their concepts and understanding with each other, as well as receiving feedback as required from the tutor.

> *The written form of computer conferencing offers a better opportunity for reflection on participants' contributions, and improves on print by being interactive and adaptive and allowing students to express their viewpoint. The success is totally dependent on being a good moderator, however, and this is as time-consuming as any other form of face-to-face tutoring.* (Laurillard, 1993, p.171)

Palloff & Pratt (2001) make a strong case for the importance of group dynamics in the success or failure of a discussion activity. They claim that in the online classroom, a tutor's understanding of group dynamics becomes much more important than in face-to-face classes. They cite McClure (1998) in defining six issues that concern students in an online classroom – safety, affiliation, dependence, independence, intimacy and risk-taking. McClure defines these issues as follows:

- safety – students need to feel safe in their shared environment, both by password access and by the set of agreed guidelines for contributing;
- affiliation – students need to feel that belong a larger group working together to achieve a common goal;
- dependence – students need to feel that they can depend on one another to complete tasks and provide feedback in a timely manner;
- independence – students need to be free to express their own independent thoughts, and not be pressured to express the same opinions as others;
- intimacy – the relative anonymity of the online classroom can lead to more intimate thoughts being shared than might occur in a face-to-face group;
- risk-taking – and the sharing of controversial ideas can increase as the class progresses, again from the relative anonymity of the online classroom.

It is the responsibility of online tutors to be aware of these issues and to create a group dynamic that best supports students in these areas.

Students in an online forum are no different from traditional students – they need to know that the tutor is there to guide and support them. The tutor must continue to have a clear and evident presence by responding strategically where needed. Rieber (2001) maintains that there will always be a need for 'a more capable other' to help at 'just the right moment' and in 'just the right way' during a course of learning. He states:

> *… the idea of considering the teacher as the facilitator or manager of learning elevates the importance of the teacher. Guiding, shaping and managing the learning experience is far more demanding than that of dispensing information. It is far more satisfying as well.*

There are a number of reasons why intervention by the tutor might be appropriate:

- when questions are asked – sometimes these are best left for fellow students to answer, but at other times the tutor should provide help and information;
- if comments become inappropriate - it might be necessary for the tutor to remind students of accepted standards and protocols;
- if discussions go off-task – the tutor's role is to keep the discussion focussing on the purpose of the activity;
- to challenge and extend the discussion – the students must be pushed to extend their current bounds of knowledge and understanding for the maximum advantage to be gained from the exercise;
- to discourage lurking – if certain students are not participating, a direct email is a means of determining whether the student might have trouble accessing the course, and a way of providing a gentle nudge to get started. Even mature students will be encouraged by knowing that someone is taking notice, and does want them to get involved.

However, it is also essential that the tutor does not dominate the discussion. A successful discussion will be one in which most of the contributions (reflecting the levels of thinking) have come from the students themselves.
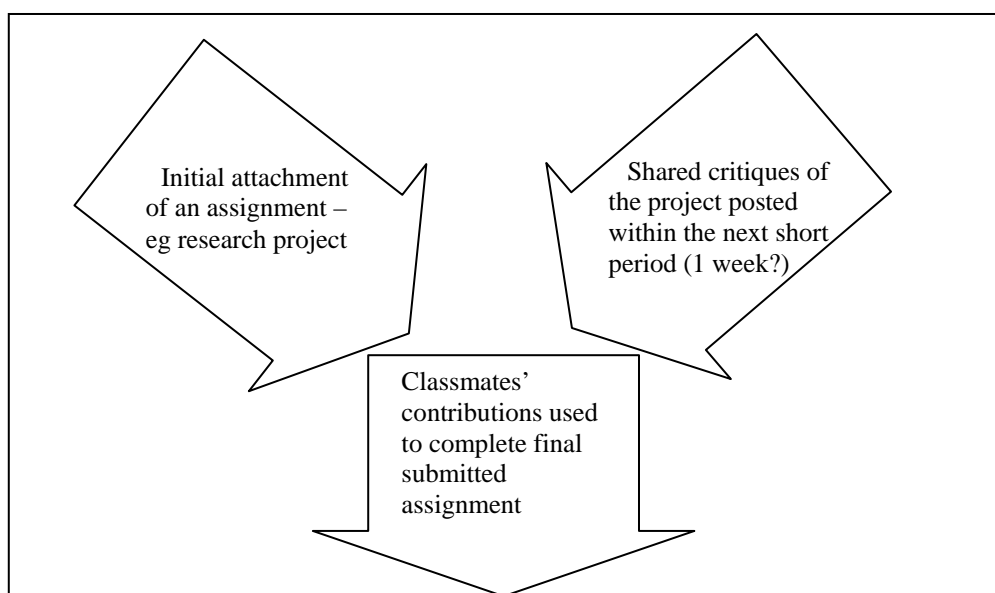
Creating a multi-staged Discussion

A discussion board activity will have greater impact and worth if it can encourage a deeper level of learning and understanding. A discussion that consists of a single activity only – discussing or debating a single concept – may have a limited impact. If the activity can build through two or three parts of the discussion, it can lead to a more purposeful outcome (eg as mentioned in Baskin, 2001, p270). This process develops a reflective cycle (Baskin, 2001) or experiential cycle (Kolb, cited in Baskin, 2001), which encourages students to participate in the accumulated learning of the group.

An example of a multi-staged discussion would involve students posting an initial assignment to the discussion board as an attachment. This assignment is read and analysed by a given number of classmates who post critiques in response. These critiques are then used to compose a final version of the assignment. There would be clear timelines imposed for each section of the activity, and each student would be expected to critique a specific number of others' assignments. The extra benefit provided by this activity comes from applying thoughts and ideas to a variety of other students' work, and comparing the knowledge constructs of others to their own views and understanding. Laurillard (2002) quotes studies at the Open University that confirm the value placed by students for these discursive and reflective activities in the following ways (p.148):

- *students have access to an expert whom they can question to clarify the expert's description;*
- *students can articulate and re-articulate their descriptions of the topic in response to others' ideas and comments;*
- *students can reflect on the discussion to clarify their own understanding.*

This process is well served by the use of discussion boards, as the process of comparing ideas is open and transparent to all others in the class. The use of email as a medium for this activity would be less effective, as students can only participate in their own feedback, and not be spectators in others' discussions.

Figure 1 - multi-stage discussion activity

Another example of a multi-part discussion is a tiered discussion topic. Students are asked to share ideas and arguments on a sequence of two or three scaffolding aspects of the same topic. Each discussion forum has its own focus, and each student would be expected to post a certain number of contributions (say two or three) to each forum. The expectation is that the argument becomes progressively more informed. Depending on the nature of the topic, and the degree of research implied by the postings, references may or may not be expected.

Barriers to Participation

There are four major barriers to students' participation in discussion activities:

- lack of convenient access to technology and low technological literacy;
- student immaturity and genuine eagerness to learn;
- language confidence – ESL students are likely to have an extra disadvantage;

- learning style – both individual learning preference and the experience of previous education systems.

It is within the capacity of the tutor to have an effect on some of these possible barriers, more than on others.

Generally, it is not the responsibility of the tutor to provide access to the technology. Most tertiary institutions provide on-campus student computer labs, which can be used over extended hours. However, as long as technology expectations have been made known to students before enrolling, it is their responsibility to ensure they maintain adequate access. The onus is on the tutor or the institution to provide an accessible framework that requires the least learning curve – no special plug-ins required for browsers and a simple and intuitive portal and user interface. Some access difficulties could also be overcome with greater use of common baseline documents, such as pdf files.

It is the opinion and experience of this author to suggest that more mature students studying at a post-graduate level perceive more intrinsic value in the learning available from discussion board activities. At the under-graduate level of study it is more likely that the motivation of an assessment component will be needed to encourage greater participation. However, as stated previously, there must still be a clear purpose to the activity, which must be defendable in terms of its demonstrable link to the stated learning outcomes of the course.

Increasing numbers of students from non-English speaking backgrounds can present significant challenges to participation in online discussions. In some cases, participation will be reluctant, as the student struggles with the levels of language expected. In other cases however, the discussion board can open up communication for students who would not be heard in a face-to-face class. The forum allows students to compose a contribution over time, check and revise it, before posting it. These students need to be encouraged and supported in the initial stages of discussion activities. Suggested strategies for reducing the effect of language difficulties include the following:

- provide an initial (ice-breaker) activity simply to introduce members of the class to each other, possibly with pictures to help identification. A non-assessed activity may help to break down the reluctance, and increase the confidence of posting. This can be a useful activity for all student groups, not just those with language issues;
- create an initial activity that allows students to post anonymously if they wish, allowing a gradual, non-threatening introduction to the concept of online discussions. This activity should be seen to lead onto an assessable discussion in which students cannot be anonymous;
- create small groups of similar language levels. In these groups students can practice their writing and produce a group response to a question that can then be posted onto the whole class forum.

Perhaps the most challenging barrier for tutors is the effect of learning styles on participation. Students whose early education has been in very instructivist environments might find this sharing, collaborative approach to learning quite unfamiliar. Introducing group activities and assignments can help to break down the isolationist attitude to learning. Activities such as the multi-stage discussion described above will demonstrate the extra power of the collaborative approach.

Chase, Macfadyen, Reeder & Roche (2002) suggest that the use of CMC provides its own cultural dimension, imposing a dominant 'cyberculture'. They conclude that the superimposition of the cyberculture over other cultural differences presents distinctive challenges, as well as significant opportunities. A skilled online tutor will endeavour to minimise these challenges and replace them with opportunities by encouraging full participation in the available learning opportunities.

Assessing Discussion Board Activities

The decision of whether or not to assess an online discussion must be made with regard to its value in achieving the learning outcome it addresses. Assessment criteria must be clear and unequivocal, and must be well understood by students before the activity begins. The assessment criteria must encourage and

reward the constructive development of the anticipated learning for the whole group – rewarding both quantity, but most-importantly the quality of the material contributed to the discussion.

It is perhaps simplest to consider three aspects of the discussion that should be taken into account for assessment:

- quantity – students must be aware of the minimum expected postings within a certain period;
- quality – there must be some indication of the expected contents of a posting. Some discussions will focus on the sharing of opinions, while others will involved levels of informal or formal research, requiring varying degrees of referencing, etc. There should be clear expectation that postings should show levels of individual and original thought. It must be clear to students that a posting such as 'I agree' will not constitute one of the expected quantity. The cognitive levels outlined in Bloom's taxonomy will be helpful here;
- timeliness – if discussion postings are to contribute to the overall learning of the class, they must be available at reasonable times during the period of the discussion. All of the expected postings appearing on the last night before the due date will not aid the purpose of the discussion for the rest of the participants.

Conclusion

The overall effectiveness of online discussion board activities is largely dependent on their planning and implementation. As with any learning activity, the concept of alignment is very important (Biggs, 1999) – does the activity clearly align with the intended learning outcomes, and do the assessment criteria support the learning outcomes as defined in the activity.

The tutor is also a key ingredient in the success or failure of online discussions. The enthusiasm, encouragement and support of students during the discussion is no less important in the online environment than in a traditional face-to-face classroom and the discussions held in that forum. Students will get value from a discussion in proportion to their input, but the tutor will be instrumental in the overall input and value for the class as a whole.

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