INTRODUCTION

To collaborate is defined in the Wordsmyth (2002) dictionary as “to cooperate or work with someone else, especially on an artistic or intellectual project.” The widespread adoption of the Internet and increasing sophistication of online communication tools have led to the emergence of collaboration in virtual teams in which members work with each other without the constraint of being physically together (Townsend, DeMarie & Hendrickson, 1996). Unlike traditional face-to-face teams, members of virtual teams may be geographically distributed, work in different time zones, and may never even meet face-to-face. Virtual teams therefore rely heavily on asynchronous (e.g., discussion boards, e-mail), and to some extent synchronous (e.g., videoconferencing, online chat, telephone) collaboration tools to support the interaction.

In the educational scene, many academic institutions are turning to the use of virtual teams to meet the growing demand for online education (Zhang & Nunamaker, 2003). Distance learners, who have limited face-to-face interaction opportunities, are organised into virtual teams to collaborate, solve problems, and conduct projects in much the same way as virtual teams in corporate organisations do. Apart from overcoming the barriers of space and time, virtual teams afford an environment conducive to peer-learning (Bailey & Luetkehans, 1998).

Although the dynamics of traditional face-to-face teams in the educational setting has been well studied (Slavin, 1989), the use of virtual teams raises new issues in relation to how the physical, temporal, and social separation of students affects the learning process. This article reports on the experiences of using virtual teams in an online university.

BACKGROUND: UNIVERSITAS 21 GLOBAL (U21G), ONLINE UNIVERSITY

Universitas 21 Global (U21G) is a pioneering online university formed from a joint venture between Universitas 21 (U21) and Thomson Learning. U21 is a network of 17 international universities that includes the National University of Singapore, Edinburgh University, McGill University, the University of Hong Kong, Melbourne University, and the University of Virginia. In August 2003, U21G launched its first academic programme, the MBA, which is delivered entirely online. There are neither physical classrooms nor the need for students to have face-to-face contact with other students or with their instructors. Instead, students are given access to a range of Web-based collaboration tools that include discussion forums, e-mail, and online chat that enable them to interact amongst themselves and their instructors. Given that U21G students may reside across the globe and study in different time zones, the learning approach is predominantly asynchronous to provide maximum flexibility. The global student base also affords a high level of cultural diversity.

Class sizes typically vary between 10 and 30 students. Students work in virtual teams, each comprising four or five members, on team assignments.
that usually revolve around the analysis of business cases. Since the team assignments contribute between 30% and 60% to a student’s final mark, there is a strong incentive for students to participate to their fullest. The formation of teams is freely determined by the instructor. In fact, instructors at U21G are required to complete an online faculty training program that puts them through a similar kind of learning experience as a student would go through. This ensures that instructors are familiar with the learning opportunities afforded by the U21G pedagogy and are also sensitive to the type of problems a potential student may face.

While U21G’s experience with virtual teams has generally been positive, there had been a number of teams in which dysfunctional collaborative behaviours were observed. This resulted in the poor quality of the work produced or the inability to complete the assignment on time. The following part of this article identifies four underlying reasons why these virtual teams were not as effective as they should be.

**Observed Patterns of Dysfunctional Collaboration in Virtual Teams**

**Dysfunctional Online Collaboration**

**Lack of Coordination**

Some teams suffered from a general lack of coordination. They took a long time before getting started and generally experienced difficulties in meeting assignment deadlines. Members in such teams did not appear to have clearly assigned roles and responsibilities. Furthermore, the interaction between team members was observed to be ad hoc and irregular. One symptom of such teams is the uneven spread of effort throughout the time for which they had been given to complete the assignments.

Conversely, the more organised teams tended to reaffirm the overall goals and deliverables for the assignment early in the project lifecycle, identify the tasks needed to be completed, and divide responsibilities amongst themselves. Organized teams also tended to have an individual who assumed the role of an editor to assemble the documents produced by individual team members into a coherent whole. In some cases, the editor doubled as a project manager, reminding individual members of when their individual deadlines were due.

**Minimal Social Exchanges**

In teams that performed poorly, social exchanges amongst team members were observed to be minimal. Social exchanges, which include “idle banter” and “small-talk,” are sine qua non to healthy, thriving teams. Kerr and Murthy (1994) suggest that the use of technology tools for collaboration tends to increase an individual’s attention to the task, resulting in teams that tend to have fewer distractions and diversions than face-to-face teams. Furthermore, Warkentin, Sayeed, and Hightower (1997) explain that the difficulty in exchanging information has led virtual teams to lean towards task-oriented rather than social-emotional information. This slows the development of relational links among members.

Conversely, healthy teams were observed to be socially bonded through discussion threads and e-mail exchanges that transcend the scope of the assignments. They freely shared their academic and professional aspirations, and discussed cross-cultural culinary delights and vacation points. The use of emoticons, such as a colon followed by a right parenthesis, was also observed to be used rather liberally.

**Lack of Deep and Active Discussion**

Some teams appeared to adopt a ‘get-it-over-with’ mentality. Such teams were more pre-occupied with getting to the end of the assignment than relishing in the fullness of the educational insights that the assignment potentially had to offer. Hence, they did not fully benefit from a pedagogical standpoint. In such teams, the majority of the interaction was related to the division and completion of work activities rather than deep and active discussion about the problem at hand. Desanctis, Fayard, Roach, and Jiang (2003) describe deep discussion as one which involves challenging assumptions, reflecting the issue at hand and debating one’s position. Deep discussions require students to critically analyse a problem and defend the appropriateness of potential solutions. Two possible reasons why these teams failed to engage in deep discussion include the fear of upsetting team harmony and not wishing to prolong the completion of a team assignment under the already time-pressuring conditions. Cultural factors