An Ad-Hoc Collaborative Exercise between US and Australian Students Using ThinkTank: E-Graffiti or Meaningful Exchange?

David A. Banks
Central Connecticut State University, New Britain, CT, USA
traveldab@gmail.com

Christopher J. Stewart
University of South Australia, Adelaide, Australia
chris.stewart@unisa.edu.au

Michael S. Gendron
Central Connecticut State University, New Britain, CT, USA
gendronm@ccsu.edu

Abstract

This paper outlines an ad-hoc collaborative exercise arranged between a group of undergraduate students studying an introductory MIS course in the USA and a group of Australian masters students studying a Collaborative Information Systems (CIS) course. As part of a visit to the US the first author, who normally taught the Australian CIS course, taught the introductory MIS course and the timing of the evening course coincidently crossed over with the Australian morning session. The availability of a collaborative tool (ThinkTank) at the US hosting institution suggested the possibility of a collaborative exercise within the Web 2.0 space that would support the content, to varying degrees, of the two courses. Although the focus of the meeting was defined the outcome more closely resembled e-graffiti than an organized discussion. The rather hastily arranged exercise met with mixed responses from both sets of students and this paper considers the benefits and problems of arranging such ad-hoc exercises.

Keywords: collaboration, students, ThinkTank, USA, Australia

Introduction

Traditional business models have typically built upon the idea of competition as a key strategy but increasingly the growth of global communication systems has led to a position where collaborative activities can also be seen as having a potential benefit for the parties involved. The availability of a growing range of collaborative tools within the Web 2.0 environment has led many large organisations to utilize global communication systems to build new alliances that help them to share ideas, skills and resources and create new market opportunities. Transparent supply chains allow both internal and external integration using shared data throughout the supply chain and offer opportunities for improved flow of materials, improved stock management, enhanced decision support and so on.

What is emerging is a dynamic business environment in which the various players can act in ways that involve them both collaborating and competing at various times with other players in their field, an idea characterised by Ray Noorda, founder of Novell, as 'co-opetition'. Gnyawali and Park (2009) describe co-opetition as the simultaneous cooperation and competition between firms and report that learning to work with rivals is becoming increasingly important to realize new business opportunities.

Collaboration, however, is not an easy task and can potentially produce disruptive effects both within and between organizations. Within an organization collaboration may mean that more individuals within the organization need to be drawn into discussion and decision making and this may start to challenge power structures. Between organizations the need to make previously hidden data available to a wider range of organizations that may once have been direct competitors clearly poses risk and trust becomes a highly significant issue. Equally, ensuring that multiple information systems, possibly using different architectures, can be aligned and support secure data flow between systems becomes a significant concern. In the case of global collaboration, differences in human language and culture begin to take an increasingly important role as various communication channels, from email to video conferencing, are introduced to support collaborative ventures. All of these issues provide both opportunities and threats for organizations and for individuals.

Within the classroom opportunities for collaboration and competition also exist. For many student groups there is a tension between the recognition that fellow group members are extra resources and the lack of individual control over the final outcome of group projects. Many students are highly competitive and for them groupwork can be seen as a threat to their final grades if they are in a dysfunctional group. In courses where many nationalities are represented cultural differences, particularly in the collectivism versus individualism dimension, can further exacerbate these tensions.

The Australian Course

Co-opetition is thus an important area for consideration in both education and business. For students it is doubly significant given their wish to successfully complete group-based course assessments combined with their aspiration to gain employment in a world that is itself grappling with emerging views of competition and collaboration. Students need to be provided with tools to help them monitor and reflect upon their progress in authentic educational group projects and to understand the technical, organizational and human aspects of the broader business community that they will join. It is against this background that a masters course originally titled 'Collaboration and E Commerce' was developed at the University of South Australia (UniSA) some years ago (Banks, 2003). The course was later re-named 'Collaborative Information Systems' in an effort to clarify the expectations of those students who incorrectly perceived this as a web development course. The course was originally designed purely around the concepts of collaborative learning with the intention that the technological aspects would be gradually introduced over multiple iterations.

The principal elements of collaborative learning incorporated into the course design were positive interdependence, face-to-face promotive interaction, individual and group accountability, social skills and group processes:

· **Positive Interdependence:** The learning environment is structured in such a way that students must share information and carry out work that directly affects the work and success of others. The resources of all group members are required to achieve a goal that could not be achieved by individuals.

· **Face-to-Face Promotive Interaction:** Students need to help, encourage, and support each other's efforts to learn because they depend on each other.

· **Individual and Group Accountability:** Each individual's performance is assessed in terms of both their individual contribution to the group and the overall group performance.

· **Social Skills:** To work effectively together, students must learn to use appropriate social skills, e.g., leadership, decision- making, trust-building, communication, conflict-management.

· **Group Process** To improve the group process, students need to actively and continually analyse how well they are achieving their goals and maintaining effective working relationships. (Johnson, Johnson, & Smith, 1991)

The key structure that supports the implementation of elements above is an assignment pattern around which these elements can be developed. The assignment activity requires that students engage in a reasonably large and intensive task in a short time scale so that all group members need to function efficiently and effectively as a unit to complete the task. The task involves research, critical thinking and is authentic in the sense that it seeks to reflect a 'real' task rather than being invented purely as an assessment tool. The task chosen was the development and co-writing of a conference-style paper, the stages of development being based upon typical conference development, submission and presentation process. Each group has their draft papers reviewed at least twice by other groups in the course as well as by the faculty member. The quality of the reviews is also assessed by the member of faculty. The objective here is to focus students on the critical review of papers in order that they can both improve the papers of other groups and, at the same time, hopefully bring the same critical thinking to their own papers.

Over time increasing use has been made of the discussion boards provided by the university learning management system (LMS), and external wikis and blogs have been experimented with, largely driven by student project work. In the last two years greater use has been made of the 'Chat' facilities of the LMS and also small projects where students are required to set up practical in-class demonstrations of a variety of collaborative technologies including peer-to-peer networking, electronic meeting systems and audience response systems for their fellow students.

Of all of these technologies the Chat facility has probably been the most significant. In a number of sessions students are told that the first hour of he scheduled 3 hour session will be conducted online using the course Chat room. Students are free to use their own laptops via the university network at a place of their choosing or to use a computer in one of the university computer pools. In the first use of the Chat room only a general idea of the topic is provided and after the students return to the lecture room the results of the Chat are analysed. This analysis surfaces the problems of unthreaded conversations and typically provokes considerable discussion about how such communications channels can be more effectively managed. Subsequent meetings using Chat later in the course are operated around more tightly bounded topic areas. Typical focus topics have involved the presentation of sample exam answers (drawn from actual past exams) with the students being asked to discuss what marks they would allocate to the answers and provide reasons for their mark. This provides an opportunity for students to think about what a 'good' exam answer might look like as well as promoting a more focused use of the Chat facility. As they become more at ease with the system, the students usually move beyond discussing what would make a good answer towards collaborating in producing potential examination questions complete with sample answers and grading scheme. A majority of the students on this course are from countries outside Australia and welcomed an opportunity to express views using the Chat facility, commenting that they sometimes felt too uncomfortable in class to make comments that could be taken as criticism or could make them look foolish (i.e., 'loss of face'). The students are allowed to make use of the anonymity facility offered in the Chat facility and although 'lurking' is dis-

couraged it is felt that even for these individuals there is benefit in involvement with the overall conversation..

In other iterations of the course cultural issues have been explored using the work of Hofstede, typically using a link to an excellent cultural dimensions website at www.geert.hofstede.com. This site allows easily accessible comparisons of Hofstede's cultural differences for a large number of countries.

The International Opportunity

The first author, who originally designed the Collaborative Information Systems course outlined above, was invited to Central Connecticut State University (CCSU) as a Visiting Research Scholar in the Fall of 2009. (The third author had visited the University of South Australia (UniSA) for several months in 2007 and had taught a course in the School of Computer and Information Science and it was from shared discussions of teaching that the invitation to CCSU emerged). During his stay at CCSU the first author taught one 'MIS201' section, exploring introductory management information systems with a group of 30 undergraduate students. At this time the second author was providing cover for the first author's teaching of the Collaborative Information Systems course during his absence, as he had done on a number of previous occasions. The UniSA faculty have worked closely together on the ongoing development of the Collaborative Information Systems course over the past few years and have well-matched expectations and teaching approaches.

It was realized quite late in the semester that the evening schedule for the MIS201 course overlapped with the morning schedule of the Collaborative Information Systems course (the time difference was roughly 13 hours) and this offered an opportunity to consider a possible 'live' interaction between the two groups of students. The MIS201 course does take a global perspective and has a small component of collaborative systems so it was felt that such an exercise would also be of interest to these students.

CCSU has a licence for a Web 2.0 collaborative system known as ThinkTank, a GroupSystems product, and faculty in the MIS school were being encouraged to try to incorporate the system into their courses. ThinkTank is a web-based collaboration technology that allows a group of participants to generate and contribute brainstorming ideas, typically on an anonymous basis, which can then be managed by a variety of tools to organize and evaluate the ideas and finally produce a report of the outcomes. By allowing all participants to work simultaneously on idea generation or evaluation there is a process gain derived from the parallel processing effect. This is a powerful tool for collaborative work and has been used by a number of large global organizations to explore strategy development, supply chain issues and so on.

Meetings are most typically managed by a facilitator on behalf of the meeting owner and it is also possible to have another person, a technographer, involved in the process of managing the software to allow the facilitator to concentrate on the group process without the need to also control the software element of the meeting. The University of South Australia (UniSA) previously had an electronic meeting room using GroupSystems supported both consultancy work and work with students. The first author had been involved in a number of meetings at UniSA in both facilitator and technographer roles and was thus broadly familiar with the tool sets and the design of technology-supported sessions. A short training course in the use of ThinkTank was conducted by a member of faculty at CCSU who had some experience of using the system. The online and room-based products are very similar so even though the training course was brief the relatively intuitive interface provided in ThinkTank combined with previous experience allowed a meeting to be quickly designed.

Only one timeslot was deemed to be suitable for the online meeting between the students to be conducted due to the scheduling of the courses, timing of examinations and so on. Only two weeks were available from the time that the faculty training course was run to the target date. The plan was to arrange a simple meeting with the focus of 'How could this system be used to promote links, either social or educational, between students in the US and students in Australia?" Electronic meetings are normally enormously effective in the brainstorming phase, with typically 14 people using GroupSystems being able to generate well over 100 ideas in the space of ten minutes.

The total group comprised 30 students at CCSU and 15 in Australia and the plan was to keep the brainstorming phase short so that a manageable number of ideas could then be taken forward into the later tools in ThinkTank. The whole meeting was planned to occupy no more that 30-40 minutes. Students needed to log in to the system with a user name of their choice and the only condition placed on them was that they should prefix whatever name they chose with either OZ or US to denote their location.

The Session in Practice

One immediate problem that emerged as the session was being designed was that the first author could not gain access to the ThinkTank site as Session leader. There are two roles in ThinkTank, namely Session leader and participant. The Session leader is responsible for establishing the structure of the meeting and managing the flow of the meeting, introducing tools when appropriate, pacing the meeting and moving data from one tool to the next. The problem took a considerable time to resolve and access was finally obtained only three or four days before the planned session. This gave the Session leader only a limited time to design the meeting, build an agenda and arrange a quick test with his Australian colleague on the Sunday prior to the Monday meeting.

The CCSU students were located in a classroom that had one PC per student. The teaching rooms at the University of South Australia tend to be seminar rooms rather than labs so the students were advised that, as they had experienced with the Chat sessions, they should find a free PC in one of the open-access computer labs or set up their laptops for the session. This meant that the CCSU students had the experienced member of faculty in the room with them but the Australian member of faculty was not co-located with all of his students.

At the time of the session students in both Australian and CCSU were provided with the logon and session number details and invited to join the meeting. Given the time constraints the meeting agenda was quickly activated for the first activity. During this activity a flurry of hands appeared in the CCSU room. Students were complaining that a banner had appeared on screen when they tried to log on indicating that the maximum number of participants was – 24! A hasty re-check of the session setup screen did not reveal any options that could have been incorrectly set to account for this limitation. An instruction was immediately issued to the CCSU students advising them to work in pairs, but by this time some of the group of disenfranchised students had lost interest. A quick check of the email from the Australian end indicated, as feared, that they were also experiencing the same problem, but this was compounded by the fact that these students were scattered across the campus and the member of faculty could not easily reach all of them.

The meeting continued. The planned brainstorming activity degenerated into an instant messaging session between rather confused and dispirited students with the conversation resembling e-graffiti rather than the exchange of ideas that was originally contemplated. Students were reminded that the focus of the exercise was to put forward ideas about ways in which ThinkTank could be used to support interaction, either academic or social, between the USA and Australia. The reminder had little effect at this stage. As the various tools were introduced the actions of

some of the students became mechanical and disconnected from the real process. Some students were clearly enjoying the process and gaining value from it, but they were in the minority.

All of the students are of a generation that is already familiar with a range of IT applications and one that is characterised by heavy use of a variety of social networking tools. To someone with this background, what is the meaning of a blank computer screen with a flashing cursor? Add to this the knowledge that there is someone else at the other end and a whole set of social protocols come into play. It would be impolite in this context not to introduce oneself and indulge in the social niceties of small talk before getting down to business. That small talk can degenerate into e-graffiti, inane chatter and slogans is now a fact of life and can be seen in the ubiquitous readers' comments columns in online versions of all major newspapers, blogs or Twitter. The opening sequence of the CCSU-UniSA conversation is shown below:

2. Hi, I am Irma from OZ
3. Hi I am Siva and Welcome to the session
4. skyler is here
5. Alireza is here
6. hi guys
7. hello
8. Thank you, this is a nice place:)
9. hows the weather in OZ
10. yo
11. Well, hi, I am Millah
12. Project idea: Analyse cultural differences between US &
13. its cold in US
14. whats up guys
15. PARTY!!
16. HEY BRO
17. is it? in Oz a little bit warmer
18. YEAH PARTY
19. Do you guys get Monday Night Football over there
20. its tomorrow there? do the yankees win?
21. today is a bit cold here in Aus, but yesterday was very warm
22. 12 should be: Analyse cultural differences between US & AUS - was Hofstede right?
23. hello =]
24. Project Ideas: Indicates issues the society need to resolve in global collaboration
25. gosh, I have to go back to Hofstede then..
26. very hot on sunday but it is pretty cold today
27. I like the cultural differences idea, but how bout putting it into a business context
28. MY MOM SAYS IM SPECIAL
29. Forget the project
30. Is the Kangaroo thing a stereo type or is it real?
31. Project idea: Develop models for collaboration between US & AUS that lessen the effects of the time differences
32. more social networking sites
33. 31 is a good one
34. Did you all complete your walkabout?
35. Faceboooooooook
36. Perhaps compare collaborative system differences between US & AUS...facts that causes differences.
37. obama rocks!!
38. what d'you mean by developing the models?

39. OBAMAAAAAAAAAAAAAAAAAAA
40. obama does not rock.

Line 12, expanded at line 22, indicates an early attempt by Australian students to focus on developing a task and lines 24 through 27 are also from the Australian students. Line 29 appears to see where the conversation is heading and line 31 is largely followed by e-graffiti. By line 51 the Australian students were starting to remember their chat experiences and were starting to dominate the session:

51. Project Idea: How collaboration within IT based system improve businesses collaboration
52. Project Idea: The technology can be disaster for some reasons in collaborative sessions
53. Project idea: Determine how to minimise the effect of noise (chat) in an electronic meeting system which is supposed to be focussing on brainstorming...:-)

Once the meeting had moved beyond the instant messaging 'Is it true about kangaroos' stage towards a more serious appreciation of the tool it became clear that the experience of the Australian students came to the fore. The looks on the faces of the CCSU students when references to Hofstede and cultural comments began to appear from the Australian contingent clearly signaled a growing gulf in terms of knowledge, language and focus. Once more, it has to be noted that these students were at different levels in their educational careers and that for the CCSU students the global and collaborative parts of their course were of a low order when compared with the more intense focus on these areas for the UniSA students.

By the end of the brainstorming part of the agenda very few useful ideas had been generated but the meeting was progressed through the other tools to show how the comments could be organized and prioritized. The output from the final processes did show that many members of the group were starting to respond more seriously, particularly in the later part of the session in which they voted for the most significant items:

24.	Project Ideas: Indicates issues the society need to resolve in global collaboration
49.	i think that the ethics of it are simulated because of the overdraft on is in the field of technology, more and more people are becoming over exagerrated with the demographics of life
42.	Project idea: consider how IT-based business is affected by the US-AUS Free Trade Agreement
51.	Project Idea: How collaboration within IT based system improve businesses collaboration
36.	Perhaps compare collaborative system differences between US & AUS...facts that causes differences.
58.	Project Idea: What are controls of using IT system into global business?
48.	Project Idea: Consider the different governance systems between US & AUS - what can each learn from the other?
56.	whos got xbox live?
52.	Project Idea: The technology can be disaster for some reasons in collaborative sessions
12.	Project idea: Analyse cultural differences between US &
53.	Project idea: Determine how to minimise the effect of noise (chat) in an electronic meeting system which is supposed to be focussing on brainstorming... :-)

The session concluded at the appointed time and it was suggested to the CCSU students that they could take a break. Roughly half of the students did not return after the break for the remaining lecture and quiz session. The Australian students moved from ThinkTank to the local Chat facility so that they could discuss the event.

Discussion

Technical Issues

Even though there is an old systems rule – always test a system with full load rather than with just one or two users – there was insufficient time to carry out such testing. It transpired that CCSU had only arranged 24 licenses for the entire school, despite teaching rooms accommodating 30 students.

The limitation of 24 seats was totally unexpected and appears to have been completely overlooked by the individual who licensed the ThinkTank product. The license has now been renegotiated for up to 30 participants. This does, at least, allow a full class to engage in a session and will avoid embarrassment for other faculty who use the system in the future. The limitation of seats is understandable, in some ways, because in a business setting the system would typically only be used with groups of eight to fourteen. Had the limitation been made clear prior to the session, perhaps at the training course, students would have been paired prior to the actual session.

The lack of a computer room that would accommodate the Australian students at short notice meant that they were scattered across the campus and were therefore difficult to contact once problems began to emerge. A back-up channel would need to be established to overcome this issue.

Although the ThinkTank interface is quite intuitive there was a need for greater feedback to have been provided to support the Australian students in terms of letting them know where various function icons were located on the screen.

CCSU Students

The CCSU students appeared to be rather disenchanted by the whole exercise and attempts to elicit informal feedback during and after the session were rather non-productive. Some students clearly appreciated the opportunity to experience the exercise but the technical problems and perhaps the choice of focus topic appear to have exacerbated the misfit between the educational levels of the two participating groups, creating a less than hoped for outcome.

For many of the CCSU students, for whom collaborative systems was a topic that only occupied around five or six pages in a large textbook, the experience offered limited value. Attempts to raise the issue in later classes were met by silence and eventually the tacit agreement was to let that particular experience pass by. Some students, perhaps five or six, did indicate that gained some benefit but this is a low return on the investment of effort given to the exercise.

It should again be noted that the CCSU course was a first/second year undergraduate course, while the Australian course was a masters course. The difference in course level and student maturity may have played an important part in each cohort's response to, and ability to deal with the issues discussed above. The students had become familiar with one form of collaborative technology in the form of an Audience Response System that was used by the first author in almost every session of the MIS 201 course to conduct in-class non-graded quizzes. This technology provides each student with a small hand-held numeric keypad through which they can enter their choices in multiple choice quizzes displayed on the main projection screen using TurningPoint software. This technology allowed the member of faculty to monitor the progress of the students

and the students to gauge their performance against that of their peers. Their response to this technology was very positive and their willingness to embrace this technology was a key factor in encouraging the member of faculty to go ahead with the ThinkTank exercise.

The CCSU students needed to be better prepared for any future ThinkTank sessions and perhaps need to receive some training with the software prior to using it. Although the interface is reasonably intuitive and instructions do appear on the screen it is a very different piece of software to the applications they are used to and a brief sample meeting prior to a real one would be beneficial. Under time pressure it was not surprising that some students became lost and disenchanted with the exercise.

Had more time been available it would have been possible to use the system again as a debriefing tool, but this time within the MIS201 group only. This may have provided the students with a more positive view of the value of this technology.

UniSA Students

The Australian group moved from the ThinkTank session straight into a formal debrief supported via a Chat session. This revealed some generally negative descriptions of the exercise:

> *"So um. That process looked a bit like a train wreck from the outside."*
>
> *"we were chatting rather than brain storming!!!!"*
>
> *"the sessions were interrupted by chats.."*

There was also a focus on what they saw as specific problems:

> "*you cannot log in"*
>
> *"yeah i had to refresh the window in every 5mins"*
>
> *"I suppose that there was a high amount of off-topic stuff, probably would have been more successful with more time to settle..."*
>
> *"overall, we need a kind of training before:)"*
>
> *"the brainstorming function wasn't suppose to be use for discussion at all!! although you can comment and discuss on a particular project by double clicking it"*
>
> *"at first the system seemed to me like a chatting system"*
>
> *"That session had a number of problems - the biggest one was not technical, it was the way that we used it."*
>
> *"that's why we need some training before involving directly to real situation"*
>
> *"The voting system seemed useful (I was kicked off at that point so this is just an observation)"*
>
> *"I think there is nothing wrong with this system, but, people needs be training first, before they use thinktank in order to get better result."*
>
> *"Was it useful (to generate ideas): Yes Could it be used better: Definitely"*
>
> *"the system can be used in better way, we didnt use it in an appropriate way"*

The Australian students, for whom collaborative information systems was an entire course, derived some benefits and were able to translate their experiences with Chat sessions into the context of another collaborative system. The Australian member of faculty was able to meet face-to-face with the students and discuss the issues with them in the context of the course. For many of those students there was tangible value in the exercise. The major problems that they had were related to lack of someone by their side when they were not quite sure what to do next, and by the need to read screen instructions rather than be led by a facilitator through the process. What was evident was that the course had to some extent prepared them to deal with ambiguity in a positive

way and to place the event into the context of the broader material and overall processes that the course provided.

For the scattered Australian students there was no one they could all turn to for help, so once again this stresses the need for a 'dummy run' session to be offered prior to the actual event. Locating the students in a common venue for at least a practice session would be a more desirable way to avoid problems with the actual operational aspects of the software.

In retrospect it may have been overly ambitious to bring together groups with such disparate backgrounds and levels of study. The limited focus on global, cultural and collaborative technology issues in the CCSU MIS201 course was clearly very different from the strong and experiential focus that of the UniSA masters course. The ability of the UniSA students to recognize that this software raised similar problems to their experience of the Chat room on the LMS meant that they could quickly move beyond the e-graffiti stage and start to bring their understanding of collaboration and culture to bear on the process. This response by the UniSA students was recognized by the undergraduate audience at CCSU and may have served to further alienate them from participating fully in the conversation.

Should such an exercise be undertaken again it would be important to establish informal contact between the student groups prior to the actual exercise to help them work through their need to know about the other students, their country and culture and areas of interest. The choice of topic for the meeting should also be determined by the students rather than being a rather boring, even though well intentioned, academic selection!

Conclusion

This exercise was carried out with the best of intentions and with the aim that both sets of students would have an enjoyable experience that let them use a contemporary collaborative technology. The fact that CCSU has invested in ThinkTank and is encouraging its use in MIS courses is a very positive step but for it to be used to best effect there is a need to consider student training, number of licence seats and nature of the task for which the system is used.

The major lessons learned were that even when faculty are familiar with technologies and have the right intentions, there are many factors that can impact negatively on ad hoc exercises such as the one outlined here and that there is a risk that students may develop negative views of an event that was hoped to provide them with a positive learning experience.

Would an exercise similar to this be contemplated again? There are potential benefits once the technical problems are overcome but perhaps not for these two specific courses. It would be difficult to find a focus that would accommodate the aims of both of these specific courses and provide a meaningful vehicle for useful discussion between the two student groups. Perhaps this was a case of faculty being overly-enthusiastic and reacting to an opportunity that presented itself. This, in the modern educational climate, may be a risky strategy given that that it could lead to negative student feedback, despite the good intentions. Such negative feedback could, in turn, negatively impact on the careers of the untenured faculty involved at the Australian university. Fortunately, for a variety of reasons, this will not be the case, but it does leave one asking questions about the advisability of organizing such ad hoc events or indeed any initiative that poses risk for faculty. Experiential learning is much talked about in some quarters – perhaps experiential teaching also needs to be discussed so that a climate that supports such potentially risky endeavours can be created.

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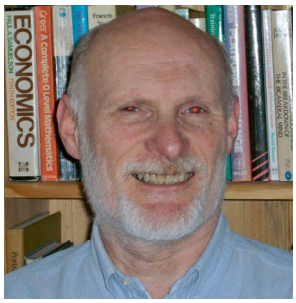
Biographies

David A. Banks is an information systems lecturer and has research interests in collaborative information systems. He edited a book exploring the use of ARS in higher education in 2006. He was a Visiting Research Scholar at Central Connecticut State University in late 2009. He is a member of the British Computer Society and a Chartered IT Professional.



Christopher J. Stewart teaches a number of Masters courses in the information systems area, including contemporary issues, digital record keeping systems, collaborative information systems and information and systems for competitive advantage at the University of South Australia. He has a particular interest in the work of C West Churchman.

Michael S Gendron is a Professor of information systems at Central Connecticut State University and teaches a range of information systems and telecommunications courses. He has a strong background in health information systems and has a keen interest in the strategic alignment of information systems with business.