New Frontiers, New Technologies, New Pedagogies

Educational technology and the internationalisation of higher education in South East Asia

A study of current developments and emerging issues conducted with funding provided by Telstra Australia.

Christopher Ziguras

Monash Centre for Research in International Education

August 2000
The Monash Centre for Research in International Education

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Executive Summary

The New Frontiers, New Technologies, New Pedagogies research project is a preliminary investigation of the ways in which information and communication technology are internationalising education in our region, and the socio-cultural implications of these developments. In the digital age, educational materials, whether supplemental course materials or whole online courses, are able to transcend geographical barriers. The frontiers of higher education institutions are no longer defined by commuting distances or national boundaries. Instead, their reach is now more fluid, and is increasingly shaped by the local availability of communications technologies, language skills, commonalities of interest and un-met demand in far off places. Informational and communication technologies are transforming the ways in which teachers teach and students learn. This report provides an insight into the issues that arise at the intersection of these changes, when new frontiers, new technologies and new pedagogies meet. Focusing on developments in Singapore, Malaysia and Vietnam, it explores some of the sociocultural implications of the internationalisation that results from the use of new technologies in higher education.

The project was funded by Telstra Australia and carried out by the Monash Centre for Research in International Education. It is intended to form a basis for discussion in the field and to assist in planning future research projects on the specific issues identified and to inform the development of more culturally reflexive uses of educational technologies in international contexts.

The Digital Divide

The use of educational technology is significantly altering access to higher education. New technologies are lessening geographical barriers to education. Individuals and institutions with access to the Internet have an enormous volume of educational materials at their disposal, regardless of their physical location. However, such access comes at a price, and the need for expensive hardware, software and telecommunications poses a serious financial barrier for much of the population of the region.

Academics in poor countries such as Vietnam are beginning to obtain Internet access, which allows them to keep up to date with international developments in the field, access publications and maintain international networks of colleagues. This requirement is increasing infrastructure costs for educational institutions, which is particularly difficult for public institutions in poor countries. This also creates new barriers to entry for prospective students, who are increasingly required to have independent access to computer equipment and Internet access. The geographical centre–periphery divide in education is slowly being replaced by a digital divide.
between those who can afford to participate in global information networks and those who cannot.

**Language**

For those educational institutions and individuals in South East Asia who do have access to information and communications technologies, the language and relevance of exiting educational media and online communication networks is of central importance.

The wiring of educational institutions and greater use of online educational resources and communications is heightening the importance of English languages skills in South East Asia. Most material on the Internet is of course in English and the United States remains the dominant producer of both applications and content. While online content in languages other than English is developing rapidly, most new educational content continues to be published online in English only. When universities in countries such as Malaysia and Vietnam are connected to the Internet, the technical impediments to international exposure and collaboration are lessened, and English language proficiency becomes increasingly important.

**Educational Technologies and the Internationalisation of Curriculum**

As educational institutions incorporate new media into teaching and learning, the constraints of geography become lessened as online materials can in principle be accessed from any point on the global network. On the one hand, this allows institutions to internationalise their curriculum, broadening students experiences and preparing them for life in an increasingly interconnected world. However, the increasing ease of access to materials has the potential to further homogenise education around the world. Despite the growing diversity of the global ‘online community’, it is still the case that most online educational resources are produced in English by Western educators.

In coming years, all universities will have to respond to the increasing use of online materials produced for global audiences. During the past few years, many universities have been actively internationalizing their curriculum. The increasing portability of digital educational media makes that process even more important. Internationalisation of the curriculum encourages students to take advantage of the growing body of internationally produced online educational materials. At the same time, internationalized institutions have a more global, multicultural outlook that lets them more easily produce educational materials that are likely to be useful to those in other parts of the world.

Local lecturers and tutors are crucial in helping students to contextualize and appropriate international materials. Teachers act as a bridge between the producers and users of educational media. They are able to frame and interpret the content for students, and help incorporate that content into the students’ broader education. This role becomes increasingly important as the cultural and geographical distance between producers and users increases. In international
education, local teaching staff often have little control over the content and form of educational materials, which are often produced in another country. There is a great need for international collaboration in the production of educational media to ensure that content that is useful locally is also useful to educators and students in other parts of the world.

In every discipline there is a balance between more universal and more local knowledges. Consequently, the degree of localisation of transnational courses varies between subjects, disciplines and institutions, and more research on the processes used by institutions in internationalising courses for transnational delivery is needed, both to illuminate current trends and highlight effective approaches.

**Styles of Teaching and Learning**

In many ways, South East Asian students and teachers attitudes to innovations in teaching and learning appear very similar to their counterparts anywhere else in the world. There is a consensus that educational technologies encourage innovation, creativity and independence on the part of students. While some argue that this will happen simply by virtue of using the new technologies, others believe that technologies can only achieve this by reorienting the relationship between teacher and student.

It is important to bear in mind the cultural nature of communication in any medium. A student’s ability to engage in technologically-mediated communication requires an understanding of the conventions of the medium, and these may vary from one culture to another. When students and teachers from different parts of the world interact in online learning spaces, they bring with them different cultural assumptions about how they should interact with each other. There is now a considerable body of research on these issues in face-to-face teaching but little research on how they impact on international applications of educational technologies to facilitate cross-cultural interaction.

It is now a very familiar complaint to educationalists everywhere that students are sometimes resistant to the new demands being placed upon them and that teachers are nervous about requiring their students to learn more autonomously. The trend towards student-centred learning has been under way for some time in South East Asia, however these approaches encounter different traditions of teaching and learning. In these countries, there is a greater emphasis on the face-to-face presence of the teacher and a tradition of more structured learning than is sometimes the case in Australia.

Broadly speaking, producers of digital educational materials can respond to these cross-cultural issues either by tailoring their products to particular student groups, based on an understanding of that audience, or by designing flexible products that are useful for a very diverse audience.
Possible future projects

This study points to a number of emergent issues that will become more pressing as educational technologies become more common and educational content increasingly traverses geographical and cultural distances. The following research and development projects aim to address these concerns.

Redistributing hardware

Comparatively well-resourced educational institutions, hardware and software manufacturers could assist poorer educational institutions to gain access to educational technologies and online content by supporting the distribution of used equipment to schools, universities and non-profit organisations in the region. Similar programs exist in the United States and Singapore, in which used computer equipment is reconditioned and distributed with donated software to those in need. (See World Computer Exchange, www.WorldComputerExchange.org; The Reuse Collaborative, http://www.reusers.org/)

IT-trained volunteers

Educational institutions and other organisations could collaborate to support volunteers with information and communications skills to work in educational institutions in developing countries. A good example of this is NetCorps in Canada, which coordinates several Canadian volunteer sending agencies. (See NetCorps Canada International, http://www.netcorps-cyberjeunes.org/)

Greater international distribution of existing educational resources

There is a growing need for high profile online databases of educational materials for specific disciplines in higher education. These would provide links to existing teaching and learning resources and provide a meeting point for international collaboration in the production of educational resources. These are common in secondary education, but do not appear to have developed on a global scale in higher education. (See the Victorian Global Classroom Resource Centre, http://www.sofweb.vic.edu.au/resource/index.htm)

Translation of online materials into languages other than English

At present, educational institutions that do not use English as a medium of instruction face major barriers in using online educational content. Translation of existing and new content into regional languages would make a significant contribution to overcoming these barriers. In Australia, this could be achieved with the aid of speakers of other languages. For example, Australian institutions could cooperate with Vietnamese community groups, local Vietnamese-speaking teachers and educators in Vietnam to produce online resources in Vietnamese that would be useful to Vietnamese speakers in Vietnam and around the world.
Development of online translation software in Asian languages

Online translation programs exist for European languages but not for Asian languages. These programs provide basic translations, allowing Internet users to obtain a rough translation of the contents of Web pages and read e-mails written in other languages. The development of Asian language translation programs would benefit international online development in our region. (See the Babel Fish translator at http://babelfish.altavista.com/)

Reciprocal Language Learning Networks

Since 1994, the Commission of the European Union has supported the International Tandem Network, through which European language learners in different countries correspond via e-mail while learning each others language. A similar project could be established to facilitate tandem learning between students of languages spoken in the Asia-Pacific region. (See The International Tandem Network, http://tandem.uni-trier.de/)

On-site research into the reception of ‘global’ educational media

Students’ experience of learning in virtual environments is now an important area of concern for educators throughout the world, and more research is needed into the ways in which students in different locations experience these environments. There is a great need for research on how cultural differences in education shape the way students, lecturers and instructional designers approach educational technologies. Such research could focus on the ways in which existing educational practices in face-to-face teaching and learning are carried over into the use of educational technologies.

Pilot projects for international cooperation in the production of educational media

Given the costs involved in the development of educational media, institutions are beginning to jointly develop products, pooling their expertise and resources. These partnerships are usually local, involving institutions in the same city. To encourage international collaboration in the production of educational media, more ambitious partnerships between institutions in different countries should be encouraged as pilot projects.

Research on international and cross-cultural interaction in online learning environments

Increasingly, groups of students and teachers are communicating with each other over huge distances using the various technologies. Teachers and those marketing and organising courses should be aware of cross-cultural issues when facilitating interaction between students from different regions and cultures in online learning environments. This would require the formation of multinational research teams comprising researchers working with different groups of students in different countries that are interacting with each other online.
Training for lecturers in the use of international online resources

There is a need to draw on existing experiences in international uses of the Internet in education, and to communicate these insights to inexperienced lecturers. Professional development courses and seminars on using technology in the internationalisation of curriculum in different disciplines would be very useful.

Highlighting examples of best-practice

In Australia, the development of evaluation tools for educational technologies is proceeding rapidly. These could be applied to international uses of educational technologies if combined with an understanding of the particular cultural and curricular issues involved. Such a process can lead to the identification of examples of best-practice that can then be used to guide further development.
1. The Study

The development of information and communications technologies is facilitating a new wave of internationalisation in tertiary education. The Internet allows information to cross borders rapidly and frequently and we are only just beginning to understand the effects of the ‘wiring’ of educational institutions around the globe.

Because the networks established by information and communications technologies are more global than earlier technologies allowed, students and teachers who use educational technologies are more closely integrated into an internationalised realm of electronic communications. Once the technological infrastructure is in place, students and teachers in different locations can work and learn together more readily, whether to collaborate to produce group projects, design jointly offered courses or practice language skills.

Students, educators and media providers need an informed and critical understanding of the international social contexts in which we work and study. These developments call for new ways of teaching that use educational technologies in ways that are sensitive to the diversity of cultures, educational needs and traditions in different regions. Even though international communications are making the world a smaller place, significant differences persist. This study is a starting point in developing an understanding of how the persistence of cultural, educational and linguistic difference might influence the internationalisation of education through technology. Too often, such differences are treated as impediments to the flow of information. Rather, they constitute much of the ground on which information is produced and received.

Many commentators have predicted the emergence of a global educational market facilitated by electronic delivery, in which prospective students can choose from courses offered by providers based in many different nations, with little difference between them in terms of modes of delivery or ease of access. In Australia, the West Review of higher education foresaw the development of a wide range of Web-based tertiary courses servicing a global educational market, making Australian universities subject to increasing international competition. Many agree with the former Chief of the National Economic Management Division of the World Bank who predicted in 1994 that ‘the marketplace for many educational services will be global, with great increases in the quality of education available to the individual at lower real costs per capita than conventional education today.’ (Knight 1994)

While there is some validity to such predictions, they often overestimate the importance of hardware and reduce teaching and learning to a technical issue of ‘educational delivery’. Even though the hardware required by global online courses now exists, there are many impediments to such courses becoming popular on a global scale.
The limiting factors are routinely overlooked by commentators preoccupied with economic imperatives and technological rationalities. It is important to avoid seeing the hardware as the driving force of the internationalisation of higher education, as do these ‘technological determinist’ positions. The current wave of internationalisation of tertiary education is not driven by technology, but is rather facilitated or made possible by it. Internationalisation occurs as a result of many decisions and actions, which are motivated by variously by a combination of economic, political, cultural and educational considerations. (Knight and de Wit 1995) Though this report touches on the various forces behind internationalisation in higher education, its main focus is on the sociocultural implications of the use of educational technologies, rather than the technologies themselves.

Fieldwork

In June 1999, the authors interviewed staff from 12 tertiary education institutions in Singapore, Malaysia and Vietnam. They interviewed staff from these institutions who were involved in the development of educational technology, including lecturers, researchers, administrators and IT support staff. These countries were selected because they:
1. Are representative of many other countries in the region
2. Provide a contrast, in terms of economic and technological development, educational cultures, language and government policies towards internationalisation
3. Are accessible by virtue of having established links with Australia

This report focuses on educational technology and internationalisation in conventional universities, distance education providers and transnational universities in Singapore, Malaysia and Vietnam. The institutions represented the breadth of tertiary education delivery in these countries, including traditional universities, distance education providers and transnational institutions. These interviews were taped and transcribed, and are quoted throughout the report although participants are not identified individually. The insights gained from these conversations and site visits proved invaluable.

Educational Institutions Visited

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<th>Traditional Providers</th>
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<td>Ho Chi Minh City University of Technology</td>
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<td>Asian Institute of Technology</td>
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<td><strong>Malaysia</strong></td>
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<td>Multimedia University</td>
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By ‘traditional universities’, we mean those that operate within one nation and predominantly use face-to-face teaching. In these institutions around the world, information and communications technologies are having profound effects, integrating academics and students into global networks as never before.

Distance education providers around the world, including those visited in this study, are gradually shifting from a reliance on printed materials to instead rely more on computer-mediated communications, Web-based materials and CD-ROMs. As in traditional universities, the increasing use of online resources and communications in distance education blurs the distinction between the inside and the outside of the university, and between local and remote relationships and sources of information.

We use the term ‘transnational education’ to denote ‘any teaching or learning activity in which the students are in a different country (the host country) to that in which the institution providing the education is based (the home country).’ (GATE 1997) Whether delivered through offshore branch campuses, twinning arrangements or international distance education, transnational education increasingly relies on information and communications technology to facilitate the routine crossing of borders by information, staff and educational materials. (Bates and de los Santos 1997; Blight 1999)
2. The Digital Divide

‘When you have expensive technology coming in, the gap between the rich and the poor is much more obvious.’

Lecturer, Universiti Sains Malaysia

The use of information and communication technologies in education is expanding access to information, educational products and whole courses, which are coming to form a globalised information network. Access to these technologies is a precondition for participation in a global information society. Clearly, individuals and institutions that are able to access and participated in these global networks are at an advantage. However, there are, of course, huge disparities in access to information and communications technologies. In recent years, inequalities in access to new information and communications technologies have become increasingly apparent.

On a global scale, the cosmopolitanism of the wealthy is in stark contrast to the localism of the poor. With economic globalisation, increasingly the wealthy have ready access to global communications media, work for companies with branches in many countries, have colleagues and clients from different cultural backgrounds, travel regularly for business and pleasure, and generally think, feel and act transnationally. (Castells 1989) The groups which are ‘information rich’ in the sense that they have ready access to information and communications technology, also possess a worldview that is disembedded enough from the particularities of local conditions to allow them to traverse the cultural differences of a global arena with relative ease.

In wealthier societies, such as Australia, the United States and Singapore, a large proportion of the population have access to such networks. Public education systems in these countries are connected to global flows of information, albeit with inferior machines and lower bandwidth than the private education sector. In poorer countries, much smaller segments of the popular are able to participate. Public education systems are stretched providing more basic services across the country, while private education institutions offer those who can afford it an entry point into the global information society.

The Digital Divide in the United States

Recent reports in the United States have detailed the extent of inequalities in access to computers and the Internet in that country (Gladieux and Swail 1999; National Telecommunications and Information Administration 1999). Even within wealthy societies such as the United States, there is a clear relationship between socioeconomic status, computer ownership and Internet access. This is not to imply that one can draw a neat line between those with computers and online and those without computers and offline. (Cisler 2000) Nevertheless,
whether socioeconomic status is measured according to income, race or educational attainment, the same patterns appear—socially advantaged groups are also technologically advantaged. This is to be expected, but the implications of this distribution for the equity and access to online education, and for the character of the emerging markets in educational services have been largely ignored by educational institutions. A recent report by the American College Board concludes that ‘the result of the new technologies may be to deepen the divide between educational haves and have-nots, and that the marketplace alone will not fix the problem. Public policy must intervene to narrow the “digital divide” between whites and minorities, the wealthy and the less advantaged.’ (Gladieux and Swail 1999) These inequalities are not likely to be addressed by the market because educational providers are currently competing to attract those students who can afford the technology and enrolment fees to their new courses.

**International Disparities in Access to Educational Technology**

On an international level, the inequalities are starker, as are the implications. Within a nation, governments can be persuaded that they have a responsibility to ensure fairer access to new media in education. For example, in the United States the Clinton government has taken steps to provide financial aid to ensure public access to groups who cannot afford to privately acquire the technology. In addition to egalitarian concerns, there is a strong national economic imperative driving this effort to provide broad access to learning technology. Similar policies have been adopted by most wealthy nations, as much out of eagerness to universalise the reach of emerging technologies, expand their high-tech industries and train a large high-tech labour force as out of a concern with educational equality. In the international arena, however, there are no equivalent transnational entities that have the ability to redress inequalities in access to technology to provide wider access to the fruits of the Information Age.

Much of the world’s population do not have access to the most basic communication technologies, such as postal services and telephones, either because these are not available, not reliable or are prohibitively expensive. (Black 1999) In less technologically developed regions, differentials in access to information and communication technologies are stark. While a small number of educational institutions are benefiting from the introduction of new technologies, the majority who do not have access find themselves further behind than they were before. For example, in Malaysia, while the Smart Schools program brings Internet connections and online teaching materials to a select group of schools, many remote primary schools across the country are still without telephones. Rather than broadening access to education, the incorporation of educational technologies seems to be reproducing existing inequalities. Especially in poorer societies, there is a marked difference between the private, internationalised sector and the national public sector.

Vietnam is the poorest and least technologically developed of the three countries considered in this study, having an average per capita income of just USD200 per annum, which is much lower than Singapore and Malaysia.
Vietnam has been connected to the Internet only since November 1997, but its use in education is developing rapidly. In mid 1999, there were around 30,000 Internet subscribers in Vietnam. To give some indication of the rate of growth, the largest Internet Service Provider, the Vietnam Datacommunication Company, has over 18,000 subscribers, of which 7,733 joined in the first half of 1999. (VNPT 1999) Significantly, foreigners hold around one third of Internet accounts in Vietnam, while comprising a tiny fraction of the population. Government agencies and business enterprises hold one quarter of all accounts and individuals hold the remainder. (VNPT 1999) Many institutional subscribers have many individual users. Dr Thai Thanh Son, Dean of the Faculty of Management and Information Technology at Hanoi Open University estimates that by mid-1999 there were actually around 150,000 individuals with access to the Internet in Vietnam, 80 per cent of whom access the Internet at their workplace.

At the other end of the spectrum, Singapore has the highest standard of living in South East Asia. The government of Singapore is looking to make the country a global hub for e-commerce as a way to maintain economic growth in the wake of the Asian financial crisis. The government estimated in 1998 that e-commerce transactions in Singapore would total USD150 million by the end of that year. In recent years there has been considerable government investment in technology infrastructure. (Techserver 1998) In a recent survey of IT infrastructure investment in 55 countries, Singapore was ranked fourth in the world, behind the United States, Sweden and Finland. (IDC Research 1999) Singapore had 394,000 dial-up Internet subscribers in 1998, or around 10% of the population. (Singapore Department of Statistics 1999) Other estimates put total Internet access (dial-up, work and school) at 17 percent of the population in 1998 (Techserver 1998) but these figures are increasing rapidly. In early 2000, the Singapore government announced a three-year initiative intended to make the country one of the top five information societies in the world, in terms of rates of Internet use and home PC ownership. These will be coordinated by the Infocomm Development Authority and include such measures as providing free e-mail address and Web pages for all citizens over five years of age and distributing 30,000 used computers with software, modems and free Internet access to low-income households. Such measures are explicitly intended to overcome the digital divide and have the potential to significantly reduce barriers to access for poor students. (Yeo 2000)

Singapore has long been using educational technology. Since independence in 1965, educational television has been used to support classroom teaching. (Chen 1999, p.219) In response to the current national IT agenda, the Ministry of Education has developed an IT Masterplan, a comprehensive strategy that aims to integrate information technology throughout the educational system. The philosophy of the Masterplan is that:

- education should continually anticipate the future needs of society, and work towards fulfilling those needs. The skills required for the future will centre on thinking skills, learning skills and communication skills. IT-based teaching and learning will be one of our key strategies for equipping our young with these skills. (Singapore Ministry of Education 1997)
By 2002, the Masterplan aims to achieve a pupil to computer ratio of 2:1 in schools and aims to have students spending 30 per cent of their school time in IT-based curriculum. (Singapore Ministry of Education 1997) The government is also encouraging local universities and polytechnics to incorporate IT in educational delivery. The Singapore One broadband network offers educational institutions a means of delivering audio and video intensive multimedia to Singaporean students.

The Peripheries of the Global Information Society

In recent years, educational institutions’ spending on information and communications technology has increased dramatically around the world. Within developed societies like the United States, wealthier educational institutions are making greatest use of new media while poorer ones lag behind. (Gladieux and Swail 1999) While wealthier institutions in developed countries are using ICTs for course delivery, flexibility and interaction at a distance, in poorer institutions in developing countries, computers are still primarily used for teaching computer science and computer literacy. (Potashnik and Adkins 1996)

The public universities in Vietnam are the most poorly resourced of the institutions visited for this study. When viewed in historical context, however, the facilities are improving dramatically. A Faculty Dean at Hanoi Open University recounted to us how 30 years ago he would bring suitcases full of books back from overseas, which would then be copied manually. ‘In my time, I have copied by hand several books of about four or five hundred pages. We had no facilities such as photocopiers and so on.’ It was common for books to be translated into Vietnamese in this way. Manuscripts would be distributed to students, who separated them into many parts and copied the parts by hand to distribute to others.

Ho Chi Minh City University of Technology (HCMUT)

Ho Chi Minh City University of Technology (HCMUT) is one of three technological universities in Vietnam, along with Hanoi University of Technology and Danang University of Technology. Its experiences provide an insight into the early effects of the Internet in Vietnamese universities. The university was connected to the Internet in 1995 and academic and general staff across the university are slowly getting access to e-mail. Internet access has increased access to new software and has provided IT staff with access to international help to upgrade the university’s IT infrastructure.

Staff who studied overseas return and teach students how to use the Internet and e-mail. The university is beginning to put content on to the Web, but only a few subjects are using the Web so far. Curriculum has changed in IT courses because lecturers have incorporated elements from course descriptions and lecture notes found on the Web. Students access to information is changing rapidly, especially in IT courses. First-year IT students are now required to do some research using online resources and new subjects being developed use
the Internet more than existing ones. Theses submitted in the past year commonly include URLs in bibliography, and all theses submitted at HCMUT are now available online.

When the University first began to gain access to the Internet between 1995 and 1997, it was only available to academic staff members in the faculty of information technology. Even this restricted access was very costly to the institution, whose 64 Kbps bandwidth Internet access cost more than the combined salaries of the 40 academic staff in the IT Faculty. In 1998, the IT faculty developed a network connecting 14 higher education institutions in Ho Chi Minh City. These institutions now have a 256 Kbps bandwidth connection to the Internet through the network. Now, all staff and students in Ho Chi Minh City University of Technology and these other institutions have freely available Internet access.

In contrast, the better-resourced private institutions in Vietnam, such as the Asian Institute of Technology Centre in Vietnam (AITCV) use technology more extensively, but are out of reach of most students. The majority of students at such private institutions rely on financial support from outside, which the institution tries to organise through grants from governments and corporations. Some bigger corporations that are in need of human resource fund scholarships to AITCV. As one lecturer noted, ‘from the student’s perspective the AITCV education is quite expensive, compared to the income level. So, more or less, people are expecting that they’ll get a scholarship otherwise they won’t be able to attend.’ AITCV’s ability to provide computer labs and Internet access in a poor country like Vietnam is dependent upon such support from international corporations and foreign governments.

Public universities in Malaysia have access to more resources than their Vietnamese equivalents but use educational technologies to a much lesser extent than the new Malaysian private universities. Public universities are focusing their energies on providing adequate computer laboratories. Enrolments at public universities in Malaysia have increased dramatically in recent years, due both to the financial crisis, which has prevented some students from studying overseas, and the Malaysian government’s commitment to increase the proportion of the population in higher education. Between 1997 and 1999, the annual intake of the country’s eight public universities increased from 45,000 to 84,000 students. This is a dramatic change in enrolments that, of itself, would put great pressure on any institution. The crisis in public universities has been compounded by severe funding cuts. (Lee 1999) As a result, facilities in public universities are stretched at present and there is little resources available for investment in educational technology. These institutions cannot expect that their students are able to afford their own hardware. While PC ownership in Malaysia is currently restricted to the middle-class, there is a sense that computers and Internet access are becoming more affordable for most Malaysians. As one lecturer told us, at this point PC ownership becomes a question of priorities for many people. ‘It’s the people who have to take the initiative to invest. Rather than buy new furniture for the next Christmas or Hari Raya, would you spend on a PC? That thinking is now slowly coming in.’
Integrating Academics into Global Networks

The Internet allows for far more constant and ongoing relationships to be established between lecturers and researchers in different countries. In academia, the Internet has become a necessity for inclusion and participation in contemporary global networks. (Agre 2000) As the management and production of information becomes ever more central to contemporary capitalism, the divide between inclusion and exclusion in the global flows of information become more crucial. (Castells 1999)

Many academics in South East Asia are only slowly gaining entry to these networks, as the infrastructure is put in place and as the content of online academic interchange becomes less centred on activities in the United States. While most academics in Malaysia now have Internet connections, very few academics in Vietnam do, and these tend to be foreign nationals working in transnational institutions or ICT specialists working in computer science departments in public institutions.

Universities have always been relatively internationalised workplaces, and many academic staff will have studied or worked in another country at some stage in their career. In developing countries, it is common for a majority of academics to have received a large part of their education in developed countries. Many of the lecturers in the universities visited were educated in American and British Universities. As one lecturer in a Malaysian university explained, lecturers bring back what they have learnt in these countries and adapt it to local conditions.

I have used what I’ve learned in Stanford—the concepts, the theory—but then always tried to apply it to the local context, because I am familiar with the local context. How does conflict theory really fit into the Malaysia context? How does modernisation theory fit into a Malaysian context? We take the concepts, we take the theory but we apply it into the local context.

As well as bringing back knowledge from abroad which is then adapted to local conditions, this experience creates international linkages which the lecturers continue to develop upon their return. International postgraduate study—Masters and Doctoral programs—which many lecturers in Malaysia, Singapore and Vietnam have experienced, often establishes ongoing research, publishing and teaching connections. Opportunities for international colleagues to meet face-to-face are infrequent, and in the past, such networks were largely maintained by letter-writing and occasional phone calls. Now, e-mail has allowed these international collaborations to be maintained on a day-to-day basis much more easily.

Internet access is helping Vietnamese universities participate in global academic networks. In the past lecturers would bring back suitcases full of books on their return to Vietnam. Now they order books and download articles online. The IT department subscribes online to *The American Computer Magazine* and IEEE *International Electronic Engineering*. They now have faster access to international information technology developments. Staff now obtain international scholarship and grant information online and can apply for these directly. In past students and academics had to rely on the government to organise these. They have established international relationships with
particular lecturers overseas who organise funding and exchanges. At a private transnational provider in Vietnam, like AIT, the communications infrastructure now means that they are as connected to global networks as any other institution in the world. As one AIT lecturer noted, ‘in terms of someone working at the institution having access to the world, there’s no difference I guess between AIT and many other places around the world.’

**Students’ Access to Computers**

Educational providers must now decide whether they will require their students to provide their own computer and Internet access. Many universities in the most technologically advanced societies now require their students to provide their own a computer and Internet access, and this is also beginning to be a requirement in private universities in Malaysia.

Public distance education providers in South East Asia cannot expect their students to have access to computers and the Internet. The Hanoi Open University, for example, estimates that only 10 per cent of their students have PCs. While distance education in Australia and other developed societies has usually required students to provide their own equipment, in South East Asia distance education has relied on study centres to provide various facilities and face-to-face teaching. The GNP per capita in Ho Chi Minh City is only a little more than US$1000 per year. The GNP in Hanoi is about US$800. This makes computer equipment very expensive. Connection fees for the Internet are very high in comparison with other countries. Internet fees, like international telephony and postage rates, are very expensive by local standards. In 1999, Internet access and installation charges were cut by up to 50 percent on 1998 prices. There are different rates for government officials and general users. For general consumers, subscription costs US$3.21 per month and US$1.20 per hour of use. The installation fee is US$19.20. (AsiaBizTech 1999b) Internet access is well beyond the reach of most of the population. As prices continue to drop, access will increase markedly. The Vietnam Computer Association estimates that up to 300,000 personal computers will be sold in Vietnam this year, and many of these users will want Internet access. (AsiaBizTech 1999a)

Two Malaysian private universities that were visited in this study—the International Medical University and UNITAR—are strongly encouraging their students to purchase personal computers. UNITAR has its own IT shop that sells desktop computers and notebooks at special prices for UNITAR students through a deal between the institution and a manufacturer. The university provides finance so that students can purchase a PC with a small deposit and regular monthly payments. Because UNITAR’s viability is reliant on students owning computers, it wants to ensure there are minimal barriers to its students owning PCs. UNITAR argues that the money students save in commuting costs and lower fees should be put towards purchasing a PC. IMU is also entering into an agreement with a hardware supplier to decrease costs to its students. It is planning to move to a new building in which it will provide numerous Internet access points for notebook computers rather than traditional computer labs. From September 1999, new students must provide their own notebook computer. Multimedia University, a private university that
specialises in technology courses, also encourages students to use online services. Internet access is freely available to all students on its two campuses through approximately 6000 data points. Likewise, Monash University Malaysia estimates that 80 per cent of its Malaysian students have computers at home. The level of information technology infrastructure at these institutions seems comparable or superior to that of many Australian universities.

**Expanding Access Through Distance Education**

Across South East Asia, governments have encouraged public universities to use distance education to deliver low-cost mass education. Distance education providers such as Universitas Terbuka in Indonesia, Universiti Sains Malaysia and Hanoi Open University have expanded access to higher education for students in outlying areas and for working adults. These institutions are slowly integrating new technologies into teaching and learning, but are hampered by their students’ lack of access to computer equipment and because they lack the significant funds required for such innovation. Meanwhile, new privately-owned entrants into the distance education market such as UNITAR are capitalising on the promise of online education, painting themselves as virtual universities.

Distance education can be offered with varying levels of student support. In most cases, printed learning materials and textbooks are sent to the students. Increasingly, CD-ROMs, videos and the World Wide Web are being used to supplement these printed resources. When discussing distance education internationally, it is important to distinguish between ‘remotely-supported’ and ‘locally-supported’ distance education. Remotely-supported distance education is delivered to students who study independently and have little face-to-face contact with teaching staff and other students. This is common in Australia and in some other Western countries but rare in South East Asia. Much more common is locally-supported distance education, in which a local study centre provides various services to students, from tutorial support to library facilities. This may involve short-term visits by lecturers or tutors from a central campus or ongoing teaching from locally recruited staff who are able to contextualise centrally-produced teaching materials. Most transnational distance education providers contract local partners to provide a range of services to students. Increasingly, institutions are providing students with access to tutors via the Internet, using e-mail, discussion forums and on-line tutorials. (Bates 1997; Bates and de los Santos 1997)

The three distance education providers visited—University Sains Malaysia, Hanoi Open University and TMC—all used local study centres to provide the hardware required by students at these locations rather than requiring students to have such equipment at home. A similar situation exists in Hong Kong, where distance education students are heavily reliant on computer facilities and workspaces provided by the institution. (Kelly and Ha 1998)
The Hanoi Open University (HOU) was opened in 1993 as a dual mode university, offering both on-campus and distance education, with the aim of broadening access to tertiary education in Vietnam. Having opened its borders to international markets in recent years, Vietnam faced a need for specialists in many areas of the new internationalised economy. The government hoped to meet these needs with the establishment of two open universities and by encouraging continuing education. There are currently around 50,000 students enrolled in distance education at university level in Vietnam, most of whom are studying at the HOU, the Ho Chi Minh City Semi-Public Open University or Hue University. (Le and Tran 1999, p.5) HOU currently has around 32,000 students, of which half are distance students, quarter full-time on-campus students and quarter part-time on-campus students. The language of instruction is Vietnamese.

The demographics of distance education in Vietnam are similar to those in other countries. While most of HOU’s full-time students are school-leavers, most distance students are working and many have previous degrees. As a HOU administrator explained, working adults ‘want to take distance education so that they can be working and they can be learning at the same time. And, for example, if they are busy this month and they can not take the test or exam, maybe next month or the month after next they will come for the test or the examination again.’

HOU has 12 local study centres across Vietnam for distance students, who are located all over the country, including remote and mountainous areas. Tutors and lecturers visit these at regular times to conduct tutorials, revision classes, tests and examinations in conjunction with teachers based at the local study centre. HOU allows students to study without attending the local study centres but few do in practice. Teaching materials are mostly in printed form, supplemented by video and audio tapes, television and radio programs. HOU plans to put computers in use for distance education and has developed its own Intranet, which it plans to put to use for distance education. At present, students use the audio and video programs both at home and at study centres. Those who have access to television and radio at home can watch or listen to programs as they are broadcast on Vietnam National Radio and Vietnam National Television. Others can watch or listen to those programs on tape at the local study centre. (Le and Tran 1999) Use of computer-based delivery would be organised similarly, with both home and study-centre access. HOU is establishing an intranet called ‘Open Net’ to connect learning centers around the country. This will be used for centralised administration and management, dissemination of materials and communications between staff and students. It will use a satellite connection between campuses, which is cheaper than Internet connection and faster. The development of an intranet and the Internet at HOU, will follow the same model, and students will continue to be heavily reliant on facilities provided by the institution at study centres.

Universiti Sains Malaysia

Universiti Sains Malaysia (USM), Malaysia’s largest and longest-serving provider of distance education, has 20 regional learning centres across the
country, which provide administrative support, face-to-face teaching, resources and, increasingly, access to teleconferencing suites and computer equipment. Videoconferencing has been used extensively in recent years for the delivery of lectures to these learning centres. Because of budget cuts in Malaysian public universities, USM has a limited capacity to develop applications of information and communications technologies in distance education. Fees for distance education students at USM are very low—around RM 1,000 (US$265) per year, or RM 3,000 (US$790) for a full three year degree—so there is little revenue from distance education directly. Nevertheless, USM is now moving to put all distance education teaching materials online so that students can access resources from computer labs in the regional learning centres or from computers connected to the Internet at home or work.

The gradual adoption of online delivery and Internet connectivity by these public distance education providers will provide students with access to international online resources. However their languages of instruction—Vietnamese and Bahasa Malaysia respectively—limit the extent to which external online resources can be used in teaching and learning. As will be discussed later in this report, students at such institutions cannot be expected to be able to work with English-language materials, which currently make up the vast majority of online resources.

**TMC Centre for Advanced Seminars (Singapore)**

The TMC Centre for Advanced Seminars in Singapore administers distance education courses for Monash University, Deakin University, the University of Newcastle and the University of London as well as offering its own short and diploma courses. Since the currency crisis, the demand for foreign university courses delivered in Singapore has increased dramatically. (Patton 1998) Students who would previously have travelled to study abroad are opting to do courses offered in Singapore by international institutions.

There is little regulation of distance education courses in Singapore as long as no face-to-face teaching is provided. However, there is a need to inform the Ministry of Education of the collaborative arrangement, including submission of course contents. While not providing any actual teaching, TMC provides a range of other services to students enrolled in international distance programs, including advertising and information sessions for prospective students, orientation programs, administrative support, study group meeting sessions, student support and counselling, local submission of assignments and library facilities.

Before the Internet, TMC students had fax and postal access to their overseas lecturers, and students were issued with a fax allowance for use of the TMC fax machine. Since 1995, TMC have provided students with access to Internet facilities so they can contact lecturers via e-mail, participate in discussion forums, conduct research and submit assignments online. Students are increasingly interacting with teaching staff from the foreign universities via online a-synchronous conference sessions, especially in computing and
communications courses. But even with such online interaction, according to TMC, students still value local facilities and face-to-face support highly, and there is little demand for courses taught online without such support.

‘Virtual’ Universities

The term ‘virtual university’ is usually reserved for institutions that have no campus and teach students exclusively by distance mode using educational technologies. This is perhaps the most intensive application of educational technologies into higher education, evidenced in the United States by universities such as Jones International University (Pease 1999). In a technical sense, relying on Internet-based communication allows the institution to operate globally. In the earlier print/post phase of remotely-supported distance education, most students tended to live near the institution, and almost entirely within the same country. Internationalisation was difficult due to the cost, slowness and unreliability of international communications. By using e-mail and the Web, it is now possible for prospective students to choose from a wide range of courses offered by providers based in many different nations. However, in practice, online universities appear to draw most of their students from within their home country. A number of online universities have begun to market themselves internationally, including Jones International and the University of Southern Queensland.

Two institutions in the countries visited refer to themselves as virtual universities. The differences between them offer some indication of the ways in which this organisational form may be applied in South East Asia.

Universiti Tun Abdul Razak (UNITAR)

UNITAR is a private university in Malaysia founded in 1998 that set out to be a ‘virtual’ university with no physical campus, relying entirely on technologically-mediated communications.

When the university was first proposed, the Malaysia Education Minister expressed concern about the lack of socialisation in remotely-supported distance education. In short, UNITAR was told: ‘no socialisation, no education, no license, no operation’. In response, the virtual university model was altered, requiring compulsory attendance at local study centres in all subjects. In the first semester, attendance is required for 22 hours per subject and in subsequent semesters students must attend eight hours of classes per subject. UNITAR has had to establish a network of local learning centres, which students can attend for classes, interaction, exams and access to computers and support. These are very similar to the learning centres of established distance education providers, but with more reliance on educational technologies.

Due to the cost and unreliability of dial-up Internet connections in Malaysia, which were then prone to drop-outs and low bandwidth, UNITAR decided to distribute teaching materials to students on CD-ROMs. Students are required to go online to access the library, complete administrative tasks, participate in
forums and tutorials. UNITAR established a courseware team consisting of 120 instructional designers, multimedia programmers, graphic designers and audio-visual producers. They work with lecturers and module writers, most of whom are employed on contract.

UNITAR’s online content is primarily text-based, including answers to common questions from students, which are compiled into a FAQ (frequently asked questions) list. Threaded discussion forums display only the last week’s messages, encouraging students to read and respond regularly. Virtual tutorials are held once or twice each month, using chat, a shared whiteboard and Real Audio. UNITAR has a virtual library (as well as a small physical library on their KL campus) which holds 3,000 titles, mainly online journals. UNITAR responds to students requests and complaints through a call centre. This forwards queries on to the appropriate person by e-mail, and they should respond within 24 hours.

The university prides itself on making use of academic staff time more efficiently than other tertiary institutions by minimizing research activities and standardizing course content to minimise differences between lecturing staff. Lecturers are supposed to respond to student inquiries within 24 hours, and if the student receives no response within 48 hours, the lecturer’s supervisor is notified.

UNITAR intends to launch campuses in Singapore and in the south of the Philippines, and later in several Middle-Eastern countries. Their international activities also extend to providing focusing on educational technology solutions and consultancy services for the region. The intent to work with schools, universities and virtual learning providers, both in content development and course delivery.

**CyberCampus 21**

TMC is part owner of a Singapore-based online education company, CyberCampus 21, which hosts online courses and provides related technical and educational services. These services include providing hardware, software and support services to both educational providers and users. CyberCampus 21 currently offers an online course that is taught by TMC and a Diploma in Business Administration and Marketing that is validated by Staffordshire University on a pilot run basis. They also offer two short courses called Servesafe Food Safety Program Writing Right: An Introductory Course to the Basics of Writing Well. TMC sees the online study option provided by CyberCampus 21 as one of a range of different delivery options, which their students can choose between. TMC plan to use CyberCampus 21 to offer a range of international courses in much the same way as they offer distance education courses. Online content would be provided by the international university and TMC would provide local marketing, administration, face-to-face teaching and student support.

These two institutions provide examples of two different types of ‘virtual’ university. UNITAR operates in a similar way to existing universities,
developing and teaching its own courses, but the majority of its teaching and learning is done through computers. CyberCampus 21, by contrast, does not develop its own content but operates as a hosting service for the online components of distance education courses developed by other institutions.

While all the distance education providers visited in the course of this study were moving to incorporate educational technology, none were moving away from also providing face-to-face teaching and support to students. There appeared to be no significant demand for remotely supported distance education. As in other parts of the world, online courses seem to be most popular with working adults seeking postgraduate qualifications, especially in business and information technology. For undergraduate students, the lack of on-campus socialisation appears to be a significant disincentive.
3. Educational Technologies and the Internationalisation of Curriculum

‘Wired’ students can, in theory, access material produced remotely as easily as material produced locally. The ability to access the Internet on campus has the potential to lift students out of a local face-to-face context and connect them with a global informational sphere. In this way, educational technologies are globalising the production and consumption of information, so that the same types of information are increasingly available to university lecturers and students anywhere in the wired world. At the same time, however, educational technologies appear to be speeding up the homogenisation of knowledge production and dissemination around the world, resulting in the devaluation of local cultures and local knowledges. Among the educators interviewed in this study, the Internet was widely seen as promoting the standardisation of curriculum on a global scale. These educators considered themselves adept at taking what was locally useful from the proliferation of online materials. These lecturers play a significant role in mediating between the producers and users of online materials, framing and interpreting the content to make it useful for their students.

Factors Encouraging International Isomorphism

On an international level, the connection of higher education institutions to the Internet furthers the standardisation of knowledge, teaching and learning. While educational technology may provide students with a larger number of online courses to choose from, it is likely that all these choices will become increasingly similar over time. Philip Agre (1999), for example, argues that, ‘In the world of networked computing, the forces of institutional isomorphism are amplified greatly.’ Isomorphism here refers to the tendency of institutions to become increasingly similar through imitation of each others’ ideas, practices and organisational structures. The used of information and communication technologies in education has enhances these processes in several ways:

- The management of different institutions and different parts of the same institution must be standardised in order to be integrated into overarching computerised networks.
- The trend towards modularity, whereby students can combine subjects offered by different providers to constitute a degree, is fuelled by the increased availability of information about courses and the trend towards distance delivery. In order to respond to governments’ and students’ desires for greater inter-institutional mobility, universities are under pressure to standardise offerings in line with other providers.
- GREATER INTERACTION AND COOPERATION BETWEEN EDUCATORS AROUND THE GLOBE MAY RESULT IN LESS DIVERSITY IN THEIR TEACHING, RESEARCH AND PUBLISHING RATHER THAN MORE.
- The standardisation of computerised systems and software allows for much greater portability of educational materials, resulting in global markets for
educational texts, courseware applications and multimedia programs. For example, electronic journals and online book purchasing are fuelling of the globalisation of academic publishing.

- Because of the dominance of the English language in the digital realm, educational technologies put additional pressure on those aiming to maintain linguistic diversity in education. English language skills become increasingly important for students, and cultural producers in English-speaking countries have a rapidly increasing audience around the globe.

The Globalisation of Knowledge

In the past, universities saw themselves as ‘a place apart’, to quote the title of a recent history of the University of Melbourne. (Poynter and Rasmussen 1996) They strived to maintain and develop bodies of knowledge developed in Europe’s elite institutions by operating independently, disembedded from their local contexts. In this sense, both the form and content of modern higher education has always been international to some extent, however in a very different form to the globalisation that has occurred in the latter half of the twentieth century.

Universities have long seen science and technology as universal, culturally neutral forms of knowledge. These disciplines have been taught globally with little regard for local differences. Through the spread of Western education around the world, these forms of knowledge have become globally dominant while local knowledge, skills and cultures are often overlooked. Some writers draw attention to the ways in which the dominant forms of Western science have appropriated elements of knowledge systems from around the globe and combined them to develop a coherent world-view (Kumar and Brown 1999). In this way, science can be de-Westernised, and made more relevant to non-Western students by teaching about the diverse cultural roots of science. This does not seem to be occurring widely in practice, and the tendency is more commonly for local knowledges to be treated as inferior to bodies of knowledge imported from the most technologically advanced post-industrial societies.

While science and technology education are perhaps the most globalised, the internationalisation of other disciplines is also occurring. Monash University Malaysia began operation offering the more ‘generic’ courses—engineering, IT and business programs—which have been adapted only minimally for offshore delivery. As one lecturer commented:

There’s no real reason in the longer term why we can’t develop subjects from other areas than the harder sciences. IT is obviously global—it’s converging in terms of standards, in terms of the ways in which people talk to each other. Whether that’s going to apply to the broader, more complex issues of politics, nationalism, protection of culture, religion—that’s a difficult one.

In any discipline, there are aspects of the curriculum that are able to be transported more readily than others. While the theoretical foundations of many social science subjects can be taught transnationally, the empirical content of humanities and social science subjects usually reflects the social
environment in which these courses are taught to a far greater degree than the sciences, business and technology subjects. This lecturer explained that:

in communications, when [students] are learning about what communications technologies are and can be and how they are located, we give them Raymond Williams—a British writer whose thinking has driven cultural studies critiques of technology for about 30 years. And they could apply that to here.

While the specific content of such courses may vary according to the local social context, it is likely that similar theoretical approaches will guide knowledge production and teaching in very different societies. There was general agreement amongst participants in this study that ‘the influence of context differs from one discipline to another’, as one interviewee put it.

**Economic Globalisation**

Vocational disciplines are increasingly having global appeal as certain types of work become globally standardised. With the globalisation of capitalism, systems of production, consumption, communications and transportation are becoming increasingly standardised around the globe, making globalised training possible in those areas of life which have become most standardised. As Manuel Castells observes, ‘the more the process of economic globalization deepens, the more the inter-penetration of networks of production and management expands across borders, and the closer become the links between the conditions of the labor force in different countries, placed at different levels of wages and social protection, but decreasingly distinct in terms of skills and technology.’ (Castells 1996) For example, the skills required to make hamburgers, fix Toyotas or use Microsoft Word do not differ markedly from one country to another. Technological globalisation has also facilitated the standardisation of tertiary education in a similar way, for example in dentistry, engineering, computer science, business administration (witness the international success of the MBA) and many other technologies.

The Cunningham report, noting this trend, argues that the most internationally adaptable areas are those characterised by ‘skills and concepts which are readily translatable across countries and cultures, a strong vocational emphasis, high student and/or industry demand for tailored and flexibly delivered programs and strong industry pressure for standardisation of content across institutions.’ (Flew 1998)

**Transnational Curriculum**

Transnational education, in which the institution based in a different country to its students, offers insights into the curricular issues that all tertiary education institutions will increasingly have to face in the near future. As educational materials and whole courses of study prepared in one country are used more often and more routinely by students in another part of the world, many practical issues will arise. The detail of these will vary from case to case and there is no point in trying to pre-empt them here. However, a general sketch of the responses of transnational educators is a useful starting point. Business education and computing are the most common disciplines in international trade in education. The portability of these disciplines coincides with high demand for these skills around the world.
The Internet is now essential to the operation of offshore campuses and other forms of transnational education such as international distance education. The three offshore educators visited in this study—Asian Institute of Technology Centre in Vietnam, Monash University Malaysia and TMC Educational Group, Singapore—all used Internet-based communication as their primary means of integrating their campus and their students into an international organisation. All three providers deliver courses through a combination of face-to-face teaching and technologically mediated materials.

Transnational delivery usually requires that curriculum is standardised across numerous campuses located in different countries and regions, for a number of reasons:

1. Institutions achieve lower costs per student by taking advantage of the economies of scale that derive from using the same course materials (whether distributed in print, video, CD-ROM or online) for a large number of students even though they are in different locations.
2. Accreditation by host countries often requires that the course to be delivered offshore is equivalent or identical to that delivered in the home country.
3. Consistency across campuses and between partner institutions allows students to move between campuses while maintaining the continuity of their course with full course credits.

For example, the content of the Asian Institute of Technology courses taught in Hanoi is essentially the same as those taught in Bangkok, and these courses are marketed as being identical. Students studying in Hanoi must be able to transfer to the Bangkok campus with minimal disruption. Lecturers in these transnational institutions consistently reported that their students expect to experience a foreign education. As one lecturer told us:

The students who come here, most of them expect to go on to AIT [Asian Institute of Technology, Bangkok], which has a very international student and teaching community. I think they come prepared to be able to accept different ways of thinking.

Some students at the Asian Institute of Technology in Hanoi (AITCV) see an international postgraduate course as a stepping stone to employment in an international corporation. Salaries in international corporations are much higher than in government organisations in Vietnam and one lecturer reported that students expect that ‘if they are accepted for AITCV then they can get good jobs in joint-venture companies.’ Lecturers seemed to agree with this assessment, another saying that ‘I think the program actually prepares you for international oriented type of work.’ In this sense, the labour market determines the perceived appropriateness of the curriculum. That is, regardless of the actual relevance of the curriculum to the local context, the education is perceived as being valuable by employers and students. As long as international education improves students’ value in the labour market, questions about the cultural and regional biases of content do not seem to concern those involved.

Transnational courses are sometimes tailored to local conditions as required, but usually only minimal modifications are made, mainly in terms of content and assignment questions. The engineering course at Monash University Malaysia is typical in sharing the same basic curriculum but using different
examples—instead of Melbourne’s Federation Square construction project, Malaysia’s new international airport is used to illustrate concepts. It is common for offshore courses to be internationalised by removing any specific local references, and sometimes adding on material that relates to the local context. Often lecturers in the home country have little knowledge of their students in the host country, and contact with local tutors may be scarce. (Phillips 1997) In these circumstances it is very difficult for lecturers to more deeply localise curriculum.

International education providers increasingly need to bridge the divide between globally- and locally-relevant education. Employers around the world now look for graduates with a balance of universal and specific knowledge, who understand local conditions but are able to work in internationalised contexts.

Asian Institute of Technology

The Asian Institute of Technology (AIT) is an international institution based in Bangkok. It was established over 40 years ago as the South East Asian Treaty Organisation Graduate School of Engineering to serve the educational needs of the South East Asian region and it continues to be funded by many governments and foundations. It now has faculty from more than 25 countries and students from more than 40 countries.

AIT has two centres in Vietnam. The AIT Centre Vietnam, located in Hanoi, was established in 1993, as the institution’s first branch outside Bangkok. It provides postgraduate education, short-term training courses, language training. Vietnamese students constitute the largest group of foreign students at AIT in Bangkok. The Hanoi centre was established to provide a lower-cost alternative for Vietnamese graduate students, enabling them to complete most of their degree in Vietnam. At the same time, the Swiss-AIT-Vietnam Management Development Programme has been established at the Ho Chi Minh City University of Technology. Jointly funded by the Swiss and Vietnamese governments, this centre delivers a graduate diploma programme in Management Development to Vietnamese business lecturers from local universities and working executives. It also provides management training and support to Vietnamese companies that are in the process of restructuring prior to privatization.

In the past, AIT’s campus in Vietnam relied heavily on fax communications with Bangkok. Staff now use e-mail and the Web extensively to keep in touch with international colleagues and to remain informed about developments outside Vietnam. Students regularly use online resources and this differentiates them from the public education sector in Vietnam. According to one AITCV lecturer, ‘It is a big difference between the international education system and the local Vietnamese universities. They are still closed. Our students have the means to access the Internet every day.’ Another lecturer reported that his students at AIT ‘use the net very aggressively and in a lot of the courses they are also given references to the Web sites. They also do project work using data on the net.’ However, as in most educational institutions, the Internet has so far had a much greater impact on
communications between lecturers than it has on teaching. According to a
different lecturer, ‘the impact on the teaching and research isn’t so clear, other
than that you can get in touch with people around the world quicker... But in
term of using it for instruction and other things, we haven’t gone very far yet I
don’t think.’

Internationalising students

Acquiring knowledge is an active process of interpretation and filtering. When
approaching the issue of culturally appropriate internationalised curriculum
from this perspective, it becomes apparent that the motivations, skills and
experience of students is crucially important. Generalised knowledge is rarely
adopted without local adaptation. Regardless of the intentions of the producers
of educational content for global electronic dissemination, the way such
content is appropriated by different audiences is of crucial importance in
understanding the effects of globalised information networks. (Stiglitz 1999)

One lecturer at the Asian Institute of Technology in Vietnam described this
relationship between students’ motivations for study and their perceptions of
the value of transnational content in courses. The suitability of transnational
business education, he observed:

depends on the target audience. Some students come to business school
because they look forward to a good placement at the end of their two-year
stay. There are others who come because they want a degree that will help
them get ahead in their organisation. Then it becomes a question of
whether that organisation recognises the school’s curriculum as a relevant
curriculum. There is a third category of people who come in just for the
sake of the knowledge. The degree won’t make a big difference in terms of
their career, but they would like to know more. These people would
probably evaluate the curriculum by themselves, try to find out whether it
serves their purpose or not.

He went on to observe that the level of previous international exposure also
plays a large part in shaping their reaction to an internationalised curriculum:

Some of the students would have gone to engineering school in Russia or
Bulgaria or one of those countries, and they would have gone there at a
very early age, and they would have come back here and worked maybe
for a multinational company and then come to school here. So their
exposures would be quite different from others who have had all their
education in Vietnam and been exposed to mainly the local influences. If
we go down to the level of the individual, we may find this ability to
transcend the difference varies, but as a group they give the impression of
being able to cope.

On the whole, he believes his students are ‘able to transcend the local context
and understand what is introduced.’ A number of lecturers commented that
this process of lifting students out of their local context and into a more
internationalised mental space is a large part of their work.

All education must to some extent engage in a process of disembedding the
student from their particular life experiences, time and place, and reintegrating
them into more abstract modes of thought that are more able to transcend time
and space (Giddens 1990). Irrespective of discipline, the interrelationship
between universalistic forms of knowledge and the particularistic experiences of students is a major issue for curriculum development and day-to-day teaching. In transnational education, however, this is a more obvious part of the educative experience. One Monash University Malaysia lecturer describes how he tries to lift students out of their local contexts:

You have to run through that whole historical, political, social cultural complex over and over again, and if you can embed that in their thinking in first year they don’t respond with such prejudice or bewilderment about what’s going on. You take them out of their own mind sets a little bit, and help them to understand other mindsets. So I think online is good there and I think if we’re going to be honest about Monash internationalising ourselves, we’ve got to do that.

Lecturers at all types of institutions are increasingly using the Internet ‘to bring the world to our classrooms’ as one University of Malaya lecturer described the internationalisation of curriculum. Some Monash University Malaysia courses use international online discussion forums that include students from campuses in different countries. A lecturer describes the gradual adoption of an international outlook by students who participate in these online discussions. In the first year subject, students:

don’t get much beyond description of their own local content. By second year, in PR [public relations], and later in theory subjects, they are starting to develop comparative analyses. They’ll be asking questions like, “why is it that way there, compared to here?” and “can you tell me more about this?” That’s exactly where I want them to go… If we want to internationalise, we’ve got to take the advantages of both sides, or however many sides we’ve got…. How do you do it, but online? It’s the cheapest, most efficient way of doing it.

Some online educators take a more radically universalistic approach to global education, advocating that courses focus purely on the international level without regard to the students’ local environment. One American advocate of this universalistic approach has asserted, for example, that ‘Global online instruction is designed to help students and instructors to view problems without regard to geography. Social action resulting from online instruction is designed to improve global conditions and may not even directly benefit the local community or environment.’ (Brayley 1998) Most lecturers, however, see the students’ local contexts as crucially important to their educational and broader social development and seek to focus students attention on the interplay of different levels of experience, from the local to the regional, to the global. It should be borne in mind that students are not generally in a position to be able to evaluate the relevance of course content, since most of what they are learning is in some sense alien.

Teaching and localisation

As one lecturer from Multimedia University reminded us, ‘standardisation of content is a very difficult effort … even in the same university, for the same subject but taught by two different lecturers.’ In the traditional university, the centrality of face-to-face interaction meant that teaching was shaped by the characteristics of oral communication. Each presentation by a lecturer or tutor is a unique performance. Each iteration of the material is shaped by the social context in which it is presented. In order to engage students, teachers bring
current events into their presentations, and update them so that each performance is of its time. In face-to-face delivery, localisation is almost inevitable.

The relationship between students and face-to-face teachers is crucial in making foreign materials relevant to students. Teachers’ knowledge of their students’ learning needs allows them to contextualise and frame information produced for global audiences.

One by-product of the proliferation of teaching resources on the Web is that it allows teachers to pick and choose teaching materials quickly, which may allow more scope for tailoring content to local needs. One lecturer with the Asian Institute of Technology in Vietnam observed:

If you take the leading publishers, when they supply you books, it’s not always that the teaching material comes with it. It requires a substantial effort to get these teaching materials. But then, now you can access the relevant Web site and it’s all there. You can simply download it from there. It means that people have to spend far less time preparing transparencies and lecture notes and so on. This gives more time to prepare material that is audience and course specific.

The ‘generic’ materials available on the Internet were generally seen as very useful by lecturers, but there is a lack of specific material relevant to teaching in South East Asian countries, especially Vietnam. While the Internet has been very helpful in providing access to recent theoretical and conceptual material, the Internet is not so useful in teaching the more practical and context specific parts of the subjects:

there are a lot of resources available on the Internet which documents management practices in various fields, but it’s not so much a problem of accessing this material, but assessing their relevance in the context of Vietnam, or any other country for that matter. What is offered as an example in the classroom, from the practical domain, has to be from that context. So I cannot take an example of what IBM has done in inventory control and try to explain that in the classroom—here it is very difficult to relate. Especially in the executive teaching, you try to keep the examples as relevant to the context as possible. So I don’t see any impact of the recent material on the net for the way we teach here, in terms of practice.

The usefulness of international materials such as these will of course vary by field of study. The lecturers who were most active in using the Internet spoke of combining the globalised information on the Web with their own local knowledge and resources. One lecturer described doing this in:

a very organic way, depending on what interests the class. I can identify material from the local press or dissertations done with the local data, summarise them and offer these as current practices that are relevant.

Face-to-face teachers are able to introduce a significant degree of local interpretation for imported educational materials. Being in close contact with students, they are in a position to know how much local contextualisation these materials may require, and can achieve a balance in the use of various types of material according to students’ level, interests, language skills, and so on.
4. Educational Technology and Student-Centred Learning

Many educational commentators in Britain, North America and Australia see the use of technology as leading to a more student-centred learning environment. For example, the British Council’s advice to students contemplating distance education courses highlights the ways in which the medium puts new demands on learners.

The new electronic technologies used in distance learning can provide students with far greater involvement in the process of learning. These interactive technologies also allow students the exercise of far greater control over that process than is possible in many traditional learning environments. This means that students must take more responsibility for, and be more active in, their learning - whether that means attendance at a satellite downlink site, participation in a class listserv, or delving deeper into a WWW-based lesson. This sense of responsibility is thought to enhance the learning experience. (The British Council 1999)

Of course, there are many different ways of using educational technologies and it is not necessarily the case that educational technologies ‘allow students the exercise of far greater control’, as the British Council puts it. Whether this is the result is a matter of design, and it is just as easy for lecturers to use educational technology in ways that rigidly circumscribe students’ options (Laurillard 1993). In some cases, replacing structured face-to-face teaching with computer-based learning has allowed students to choose when and how they study. This often requires students to be more self-motivated and develop the confidence necessary to be able to work more autonomously.

In South East Asia, educational commentators are increasingly promoting the use of educational technology as a way of enhancing the creativity and inventiveness of students. In Singapore and Malaysia, these personal qualities are seen as essential to future national economic development. An article on the role of IT in shaping the education of the future published recently in Malaysia’s Star newspaper expresses this sentiment well:

The education of this and next century must build a knowledge-based society where individuals are expected to be more creative, innovative and productive. The workplace of tomorrow will require employees with multiple skills, who are able to think creatively, to solve problems in novel situations. It will not be enough for universities to provide individuals with knowledge, important though that knowledge is. They must provide individuals with the skills to communicate, to venture, to lead. Individuals who succeed in the marketplace—and in life—are generally those with the ability and talent to solve problems creatively and effectively. (Gan n.d.)

The Singaporean government believes that educational technology will, in itself, encourage such qualities. Singapore’s Prime Minister Goh Chok Tong has stated that, ‘We will use IT to encourage students to learn more independently, to learn actively.’ (Singapore Ministry of Education 1997) From the highest levels of government there is an explicit strategy of encouraging students ‘to engage in more active and independent learning’. This policy has begun to have an effect on tertiary education in recent years, with Singapore’s leading universities stating that they will encourage
creativity and thinking skills in the curriculum and move away from a heavy reliance on written examinations as the sole form of assessment. (Tan 1999)

Singapore Polytechnic

Singapore Polytechnic is one of four polytechnics which, along with two universities, make up the public tertiary education sector in Singapore. It has recently established a Virtual College to coordinate the institution’s online delivery. Most of the online material is intended to supplementing existing face-to-face delivery for on-campus students as well as provides resources for off-campus students. Like other tertiary education institutions in Singapore, they are in part responding to strong government interest in developing educational technology. However, there are also pressures from students. Virtual College staff have noticed that students coming into tertiary institutions from secondary school have higher expectations of technology in education because secondary schools have been embracing more rapidly than universities and polytechnics in recent years.

An introduction to online study skills on Singapore Polytechnic’s Virtual College Web site tells students, ‘You have to take responsibility for your own learning. You can no longer rely on your teacher to motivate you to study.’ (Singapore Polytechnic Virtual College 1999)

In order to transform the way students learn, uses of educational cannot simply replicate existing relationships with the aid of a screen and keyboard. As Universiti Putra Malaysia’s Dr Gan Siowck Lee explains, in order to bring about social change,

IT-supported learning must be exploratory and it must promote discovery, with students constantly engaged in finding, organising, analysing and applying information in creative and novel ways to solve problems. They must be part of a global learning community where they collaborate to discover information from a variety of sources, and ultimately apply that information not only to solve problems, but to communicate ideas and continuously build up their own knowledge base. (Gan n.d.)

In practice, it appears that this transformative potential of educational technology is rarely being realised. In most cases, existing ways of teaching, studying and interacting are being transferred across into a new medium. According to Gan,

The applications of IT in higher education are still based on the old models of teaching, mostly a case of reception-based learning migrating to a computer screen. Most of the times, students still read and memorise information. Video-conferencing and certain Web applications still tend to be used primarily for information transmission in a didactic style, no different from the classroom lecture model. (Gan n.d.)

Many of the lecturers interviewed in this study were keen to introduce more student-centred approaches but complained that their students expected to be spoon-fed. By this they meant that students required close supervision and constant direction from teachers. This reluctance on the part of students to work independently and of teachers to relinquish control of students was seen...
as a major impediment to the introduction of technology mediated learning. In many ways, these students and teachers attitudes to new ways of teaching are no different from anywhere else in the world. It is now a very familiar complaint to educationalists everywhere that students are sometimes resistant to the new demands being placed upon them and that teachers are nervous about requiring their students to learn more autonomously.

**International Medical University**

Located in Kuala Lumpur, the International Medical University (IMU) is a twinning institution aligned with several foreign medical schools. Students spend two and a half years studying at IMU and then two and a half years at an international university. Most students go on to complete their degrees in Australia, with smaller numbers going to the United States, Canada, and the UK. The course is designed to be consistent with the courses offered by the overseas institutions IMU has arrangements with. From 2000, IMU will be offering its own medical degree so students will be able to do their whole course in Malaysia.

In the mid 1990s, the university implemented a problem-based learning (PBL) approach to medical education, as have most of the medical faculties at which their students will complete the second half of their medical degrees. At first, modules were presented each week on large display boards, including photographs, charts and text. However, each set of display boards took up a large amount of space and students complained that they could not get access to previous weeks’ displays. In response, the International Medical University established an online learning system to house these displays, offering students online access to study guides, lecturers’ slide presentations, links to Web-based resources, self-assessments, announcements and discussion forums.

**Technology and the Critique of Spoon-Feeding**

The International Medical University in Kuala Lumpur illustrates well the relationship between internationalisation, learning technologies and pedagogical innovation. PBL required students to dramatically change the way they learned. As one lecturer explained:

Students come to us expecting to be spoon-fed…. They’re uncomfortable. They just want one textbook, and that’s it. So they’re uncomfortable with that and then they’re uncomfortable with PBL [problem-based learning] sessions. Most of them still sit around, especially in the first semester. They do not know how … they’re just scared of saying the wrong things, which happens in the old curriculum. … And second semester, maybe we have less problems, but by the end of the two and a half years, they’re completely changed. It’s a slow thing.

After several years experience with PBL, the university is finding now that electronic delivery ‘reinforces the need for them to change their way of learning.’ While most students are happy with electronic delivery, some complained about the corresponding reduction in the number of lectures. These students preferred lectures ‘because the lecturer talks and you feel
you’re getting the information, whereas now they have to talk. The lecturer is just a facilitator, a guide.’ The International Medical University’s experience reminds us that new technologies are being introduced into institutions where there is often already an impetus towards student-centred learning. This is happening most obviously in the most internationalised institutions.

Monash University Malaysia has had a similar experience in balancing imported and indigenous teaching and learning styles. A number of Monash University Malaysia’s Australian lecturers felt that, compared to Australian students, Malaysian students expect more direction, closer supervision, are less confident in conducting independent research and have much greater regard for lecturers. The university sets out to acculturate Malaysian students to Australian teaching and learning styles, for example by limiting lecturers’ contact times and providing extensive learning skills workshops to new students. In later years, students become more confident as they come to understand what is required of them.

The use of online learning in transnational education brings together, in an unfamiliar environment, students and educators whose experience of teaching and learning stems from very different cultural traditions. Educators who have taught international students in classrooms come to understand that students from different cultures bring with them different experiences and expectations of teaching and learning. A number of useful guides to teaching international students have been published in Australia recent years (Ballard and Clanchy 1997; Metzger 1992), but there is little discussion of cultural issues in online teaching. In the scramble to get programs up and running as quickly as possible, issues of cultural difference seems to have been often overlooked in many cases. Students’ experience of learning in virtual environments is now an important area of concern for educators throughout the world, and more research is needed into the ways in which students in different locations experience these environments.

It appears that, in practice, transnational institutions generally require students to adapt to some extent to the educational norms of the home country. Later sections of this report focus ways in which the use of educational technologies in transnational programs can be more responsive to student diversity.

The Asian Institute of Technology in Vietnam prefers students who have independent study skills and maturity. It encourages a more independent style of learning than local universities, both because it is a graduate school and because it aims to provide an international education. Even though Asian Institute of Technology’s students generally have several years’ work experience, many ‘still expect the school to be the same school that they were in before’ according to one lecturer.

In general, the people with experience tend to adjust a lot quicker to the style that you have. And they also tend to be a little bit better independent thinker after they have gone to work, because you know when you’re younger and you just come out of school you know you tend to think along the way of what the book says. Maybe that’s part of the thing that we benefit from, because at AIT we tend not to admit students that have just graduated. If we can, we make them wait. We actually tell them that maybe you should go work first and then come back later.
As a result of this selection process, Asian Institute of Technology students are able to work independently using learning technologies, according to some lecturers:

At least the little that we are doing by way of using the net as an education tool, we don’t seem to have any problems with the students. They seem to be able to cope very well. Just give them broad guidelines and they know how to search; they know how to reach the relevant Web sites. They know how to download the relevant information…. I don’t know what exactly goes on at the computer lab, where they sit and work, but if you give them a reference, they never come back to you and say “give us a hard copy”.

However, other lecturers at the Asian Institute of Technology in Vietnam are not so confident of their students’ preparedness to research independently. A typical comment is provided by a lecturer who complained that he is constantly resisting students’ desire for him to provide straightforward answers:

Even though I deliver the class, I generally do not answer the question directly. I usually answer them with another question, and they have to find out the answer to that question, then the will find out what they are asking for. And that’s created problems. So I imagine it would be no different if you put them on the net. They will have the same reaction because they are not used to looking for themselves.

This shift towards student-centred learning is, of course, not confined to international education. The same philosophies are evident at public institutions throughout the region, although actual pedagogical changes are less apparent. An educational researcher at the University of Malaya observed that across Malaysia:

there’s an overall progression towards empowering the learners and expecting the learners to put in a lot more effort…. That is happening at the school level. There are a lot more projects that the students are actually asked to do – small pieces of research, things like that, even at the… primary and secondary school level.

New technologies are being introduced in this context in which some educators are trying to change the dominant educational culture. The same researcher reported that ‘we want to break away from the spoon-feeding; time and again we talk about it.’ For him, the promotion of computer-based learning by the Malaysian government provides official backing for those who seek to shift education away from spoon-feeding.

Electronic technologies can also be used in order to provide students with structured access to content in ways which require little independent activity. The teaching styles employed on UNITAR’s CD-ROMs provide a good example of this. The CD-ROMs for the first year subjects direct students through a logical sequence. A senior administrator at UNITAR explained that

When you [the student] are starting a class and you have no teachers, you want the content to teach you and guide you—one step after another. … We want them [students] to be on their own, but they do not want to be left alone.

The CD-ROMs for first year subjects are clearly structured in a logical linear fashion. The CD-ROMs for later subjects are more ‘resource-based’, requiring students to use their own judgement more to make sense of the information provided and form connections for themselves. The later year subjects require
students to be both highly motivated and possess the study skills required to
manage their own learning.

UNITAR found that their students are generally technically competent and
have dramatically reduced the amount of initial technical training their
students receive. Instead, according to UNITAR, ‘the issue is changing your
mindset, being independent, managing your time.’ To prepare students for
independent study, the first CD students receive from UNITAR is ‘Skills for
Knowledge Workers’. This covers basic computer competence such as how to
connect to the Internet, making use of word processors, Excel, Access and
PowerPoint for their work in the university, but also time management and
listening skills. Self-management becomes crucially important in the relatively
autonomous work and study environments created by technologically
integrated organisations with little structure at a face-to-face level. As a senior
administrator observed, ‘this is very important, because you [the student] must
be able to manage your time. I’m not there to tell you, “this is your lecture
time”. You tell me when is your lecture time. You develop a habit, a
behaviour, a pattern of accessing or looking at the content, to a point that you
know this is the best way you should learn, because you decide what would be
better.’ UNITAR reports that their students are more comfortable with the
requirements of online study than are parents, who have a much more
traditional understanding of education.

Similarly, teachers can vary the level of guidance they provide to students
when using Web-based materials. At one end of the spectrum, teachers can
courage students to use search engines to find their own resources. This type
of use of the Web, which is becoming common in the West, appears not to
have been embrace in South East Asia. A lecturer from University of Malaya
commented:

I am looking for this topic, so you just type in the keywords and you get
one thousand links made up for you…. You have to train your mind. One
by one, you open up [the Web sites]. Is this relevant? You pick them out…
That kind of learning—it’s not in us.

This lecturer believes that his students have difficulty deciding the relevance
of materials for a particular task and they do not have the patience ‘to sit down
and go through the mass of unorganised data.’ He suggests that this ‘could be
the cost of spoon-feeding. The main ideas are given to you.’ Students prefer to
be referred to one or two texts selected by the lecturer. The other significant
problem for students researching on the Web is that they have very experience
of independent research. More commonly, he suggests, the few lecturers who
are using the Web are directing students to particular sites, advising their
students: ‘for this topic, look at the following links’.

**Interacting online**

It is important to bear in mind the cultural nature of these skills. A student’s
ability to engage in technologically-mediated communication requires an
understanding of the cultural conventions of the medium. People have to learn
how to use the telephone—how to talk to an unseen other, how to adopt a
‘telephone’ voice appropriate to the type of conversation being engaged in and
how to gauge meanings in the absence of visual cues. Likewise, e-mail
correspondence has a different etiquette to letter writing and synchronous chat discussions operate differently to face-to-face group discussions.

In all societies, students may find communicating online just as intimidating as in person. One lecturer with considerable experience teaching mixed groups comprising Australian and South East Asia students in both face-to-face and online discussion forums had come to the conclusion that South East Asian students ‘were much more active if they felt secure in the online environment and they would talk in ways they would never do in class.’ He has kept online discussion groups small and closed for that reason, thinking that if he opened the discussions up to more participants and outsiders, the South East Asian students would feel more vulnerable. When teaching online courses to students located in both Australia and Singapore, he found that the Singaporeans preferred to e-mail him directly rather than posting public messages, which could be read by other students. He would often either direct them to post publicly or post their response publicly with their consent. Soon, the Singaporean students would post publicly without writing to him first. ‘I think it’s different learning cultures that we’re dealing with and I think once you overcome those different expectations, you can get online things done.’ He is currently teaching in Malaysia, where he suspects that online behaviour would be somewhat different to both Australia and Singapore. ‘I think Malaysian students are more open… They’re very heavy chat people online—they use the cyber-cafes a lot. … And they are upper-middle-class students, and they’re attuned to it. Some of them have already studied overseas. In Singapore it’s a bit more insular.’

**Monash University Malaysia**

Monash University Malaysia opened in July 1998 as the first full campus of a foreign university in Malaysia and by mid-1999 had 800 enrolled students. There were over 20,000 students enrolled in offshore campuses of Australian universities in 1998, with around two thirds of those students were in Singapore and Hong Kong. (Australian Education International 1999)

An offshore campus like Monash University Malaysia is only made possible by telecommunications. E-mail, more than any other technology, is used extensively by administrators and lecturers to connect the university’s campuses together. New technologies allow the creation of global universities, in which administration and teaching can be organised across electronic networks that span the globe. Once the university is restructured as a technologically integrated multi-campus organisation, as many Australian universities now are, it is relatively easy to add new campuses as additional nodes to an existing network.

The most interesting feature of Monash University Malaysia for this study is its preference for traditional face-to-face teaching. Information technology is used extensively in administration and communications but in teaching and learning the campus has opted for a more traditional approach, even though Australian campuses of Monash are rapidly adopting technology in course delivery. In Malaysia there is a close relationship between the quality of face-to-face teaching and fees. Monash University Malaysia is able to charge
higher fees than its competitors partly because it retains an emphasis on traditional forms of face-to-face delivery while other, less expensive providers, rely more on distance delivery techniques. While many other offshore education providers in Malaysia use flexible delivery techniques more extensively, Monash University Malaysia has opted for more conventional face-to-face teaching. This is a response to students preference for traditional pedagogies and the perception in Malaysia that distance education is a second rate form of education.

While many subjects are taught simultaneously on other campuses, in some cases subjects that are taught by print-based distance education or online in Australia are taught in classrooms at Monash University Malaysia. For example, the Bachelor of Communication degree is offered from Monash’s Gippsland campus by distance mode in Australia but is taught face-to-face in Malaysia. Parents expect their students to have extensive face-to-face contact with lecturers so at Monash University Malaysia online materials are used as a resource rather than as primary teaching method. For example, engineering students have access to half of the first year course material on the Web in an entertaining and flexible form, but these are used to supplement rather than replace traditional lectures. A significant part of Monash University Malaysia’s marketing rests of differentiating itself from the distance education based offshore providers by promoting itself as a fully-fledged campus of Monash with quality lecturing staff.

Some subjects at Monash University Malaysia involve students in Malaysia and Australia in online discussion forums. Malaysian students prefer private discussions to public forums; they communicate directly with teaching staff prolifically, but are wary of public exposure. Monash University Malaysia students are very uncomfortable expressing views in front of others, especially in front of Australian students in their cohort. At Monash University Malaysia, lecturers commented that it is also difficult to get students talking in face-to-face classes.

A similar experience was reported in an online course taught by the University of South Australia to students in Singapore. Lecturers, preferring a constructivist model of learning, established a noticeboard, which they envisaged would be used by students to ask questions of the lecturer and initiate discussions with each other. This did not eventuate and students commented that ‘there was not much to see on the noticeboard. They expected a flow of information from the lecturer and were not interested in initiating public communication themselves.’ This experience is certainly widespread and is not confined to cross-cultural interactions. It points to the necessity for lecturers to clearly explain their expectations of students regardless of the situation. The University of South Australia lecturer concluded that participation in online discussions would have to be included in assessment, so students would feel obliged to participate, and organised to respond to students’ desire to be instructed by lecturers in a more structured fashion. (Jensen et al. 1997)
5. The Cultural Politics of Global Educational Media

It is often argued that the new media made possible by technological advances are agents of cultural pluralism. The dominance of mass media leads to cultural homogeneity, whereas the narrowcasting made possible by Internet-based publishing tends towards cultural diversity. Cope and Kalantzis, for example, contend that ‘multimedia is used as an agent of cultural pluralism, within local cultures and across global diasporas and group affiliations’, thereby allowing for ‘dispersed sites of cultural representation [that] might serve as a counterbalance to the forces of cultural centralisation’. (1998: 33) They emphasise the possibilities afforded by the technology, acknowledging that cultural centralisation is also possible, given the nature and ownership structures of the new media. The ease of publishing on the Internet makes it possible for consumers of information to become producers, effectively democratising media production. However, in practice, the most popular Web sites are those that are affiliated with large media organisations that can afford to produce regularly updated high quality content. While there are perhaps more ‘little players’ than there have ever been, leading to a diversity in online content production, the number of ‘big players’ reduces with each merger.

Online Diversity

A fascinating study of such a global diaspora is Wendy Mee’s analysis of cultural identification in the Web pages of Malaysian students studying abroad. Since the mid 1990s, Malaysian students studying overseas have been using the Web and e-mail to stay connected to their community. Personal Web pages typically have links to Malaysian Web sites and personal pages of other Malaysian students, and assert the ‘ Malaysian-ness ’ of the author. (Mee 1998) Outside of the education sphere, Internet cafes in Kuala Lumpur are thriving—full of boys playing networked computer games and girls engaged in online chat. There has been a rapid growth of Malaysian Web content in recent years, much of which was pioneered by students. It is clear that Web-based publishing will diversify to meet the needs of different cultural groups, especially for commercial entertainment content.

This diversity also extends to the production of informational content. Around the world, local authorities face a dilemma in providing access to online resources and information. There may be commercial and educational advantages in providing unrestricted access to online content, but the government’s ability to shape and restrict these sources of information is very limited. While the mass media are able to be monitored closely, such scrutiny of online publishing is ineffectual given the ease of cross-border publishing.

In Malaysia, there has so far been little concern with the possibility of students being faced with controversial online content. One lecturer at a Malaysia university commented that compared with the high level of debate in other countries, in Malaysia, ‘there is very little talk about the bad things from the Internet, you don’t see people publicly talking about it. .... I don’t see even the religious Right and the Moslems and Christians, I haven’t seen them talk about
it.’ He tells his own class that ‘you are going to get people criticising your own religion, making fun of your own religion’ and asks them to think in advance about how they will react to such material. ‘This is something new for Malaysians,’ he says, who have so far been sheltered from confronting content by strict media censorship laws.

The inability of governments to control Internet content has become a political issue during 1999. He reports that:

People are downloading a lot of anti-government stuff now, which is on the Web…. Now the question has become, what is the truth, what to believe? For the first time, Malaysians have been given the choice to … ask the question is this the truth or not. … The Internet has done it, because if you were to rely on the local media, the other side would not have got an opportunity.

This new pluralism in information, however limited, means that people now:

have to think, perhaps for the first time in our lives, to decide what is true and what is not…. Schools don’t discuss these kinds of issues. If the schools did have critical thinking and all that, then we would see that the child is asked to discuss the pros and cons, and evaluate information, but our schools don’t do that now.

Westernisation Through Educational Technology?

At the same time, the increasing influence the Internet is also facilitating a new wave of American-dominated media production for a global audience. While, on the local scale, this often provides an increased diversity of mediated material, on a global scale, the Internet is perhaps leading to a homogenisation of cultural production. The Internet may provide a global distribution network for American media products in the twenty-first century, similar to the way in which a global network of cinemas allowed Hollywood to dominate film markets throughout the world in the twentieth century. A recent survey of 4000 Web sites found that the majority of links pointed to sites within the same country. The nation state continues to structure the flow of information, even in cyberspace. However, links to sites outside the country of origin more often lead to sites in the United States than any other country. (Halavais 2000) Although the nation state may have little governmental control over the Internet, it is nonetheless central in framing cultural and economic activity.

The introduction of educational technology inevitably transforms local practices and is part of a new phase of modernisation with global effects. There was, however, very little concern with the Western dominance of the Internet and the educational technologies on the part of the people spoken to for this study. This is perhaps not surprising, since most participants were received at least some of their education in Britain, the United States or Australia, were all fluent speakers of English and were interested in new technologies in education. However, none sensed any popular concern about neo-colonialism through information technology. At most, there was a resignation to the inevitability of cultural dominance by the United States. Phillips expressed a common sentiment, saying American dominance over Web content that: ‘we are concerned about, but we can’t do anything about it,
unless our guys come up with equal amounts of information.’ The American influence over the Internet posed no new problems for Malaysia, he believes.

We are very American dominated here—our movies, the big line up for Star Wars. Our movie industry has been killed. We don’t have a local movie industry. … Everything is American—TV, movies—very little local content. So I think we just cannot help it. They are trying to encourage local books. I think we lost the battle with our local books, in Malay. That’s a move also to turn towards English.

Likewise, in education, there has long been a reliance on imported ideas and practices. A number of interviewees emphasised the Western roots of the entire university education model. Even for students studying in their own countries, the curriculum, teaching techniques, textbooks and philosophies were have always been international to a certain extent. One person reminded us that, inevitably ‘Ideas flow. Pedagogical ideas flow. Curriculum ideas flow. What we teach in the school, how we teach them—all these ideas, sad to say, not many of them are indigenous. We borrow and adapt from outside. We go and borrow.’

Some lecturers at Monash University Malaysia generally saw no cultural problems arising from the Australian character of the institution, because youth culture in Malaysia, as in Australia, is highly derivative and Westernised through exposure to global mass media. This is especially the case for the Chinese-Malaysian students who come to Monash University Malaysia, who feel part of a broader international Chinese diaspora. While television and other media have exposed Malaysians to Western cultural influences for many years, the impact of this as compared with indigenous cultural influences of course varies from group to group, and individual to individual. In Vietnam, there has been much less exposure to Western media in recent decades due to government control of national broadcasters and the language barrier, which remain major impediments to inward cultural flows in the digital age.

**Fostering International Exposure Online**

Some participants saw online interaction as fostering better understanding across geographical divides. One University of Malaya lecturer, who is involved in establishing international collaborative projects between secondary school students in Malaysia and the United States, hopes that through such linkages,

> Maybe you can break down stereotypes and our suspicions—especially the East and West kind of stereotypes. The West has got stereotypes of the Islamic world and then we have got stereotypes of the West. … I think this collaboration would be wonderful if people could talk. University kids here could talk with Australian kids, and do a project in a virtual setting. Then we can see we all are similar—we all want the same things.

The consensus among those interviewed seemed to be that international exposure would lead to more harmonious interpersonal and international relations. However, most saw travel abroad as a superior form of exposure. One Malaysia lecturer from Multimedia University who had studied abroad for many years captured this sentiment well, believing that:
it is ideal to have people implanted into the actual situation and learn from experience of contact, but that is an ideal. And we’re looking at an environment here that, I can still experience things in Moscow but I don’t have to be in Moscow. I’ve never been to America for example, but I can be exposed—from reading, from media, from whatever is available.

A few interviewees questioned the supposed benefits of face-to-face international exposure over online interaction, arguing that the extent of cross-cultural interaction between students from different cultures in face-to-face environments is overrated. When studying overseas, they asserted, Asian international students congregate with other students from the same country. They observed that when students study abroad for several years they engage more with local people over the course of their studies, however, with the popularity of twinning programs, the depth of international exposure is decreasing. In twinning programs, students have been studying for a year or two in the same cohort before they spend their year overseas and by that time they have a close-knit circle of friends with whom they travel, making interaction with others less likely.

Those educators interviewed for this study who had some experience with international online interaction between students generally agreed that the educational design of such activities was of crucial importance. If the interactions with other students was clearly incorporated into the subject and the expected outcomes were made transparent to students, the inevitable difficulties would be overcome. This requires careful planning by lecturers at both ends and communication to students of the educational objectives of the activity. More broadly, these educators felt confident of their students’ ability to negotiate the cultural terrain of cyberspace, given the proliferation of globalised mass media that students around the world now have access to.
6. Language and Educational Technology

A large proportion of the world’s academic publishing is in English, and this has had profound effects in shaping tertiary education around the world. This has required people to acquire English language competence in order to pursue their studies and publish. (Pennycook 1994) The dominance of the English language in online publishing is exacerbating this condition. This greater need for English proficiency in education occurs against a backdrop of globalisation of economies and communications, which together have strengthened the place of English in South East Asia. While Singapore has for decades embraced English, in both Malaysia and Vietnam English had been negatively associated with colonial rule and discouraged by nationalist governments. However, in the 1990s governments in both countries have shown a renewed interest in teaching English in response to the growing importance of English in international commerce. (Gayle 1994; Bokhorst 1993)

Because of the small range of texts in the national languages in Vietnam and Malaysia, academic libraries generally contain texts in other languages, most commonly in English. As a consequence, students in most disciplines have long been expected to be able to read texts in English. A similar situation now exists on the Internet, where there is very little technical or educational content in either Bahasa Malaysia or Vietnamese. Lecturers in these countries can only link to online content in other languages if students are able to read these foreign languages. The tendency for the Web pages to contain short sections of text with photographs was seen by some participants as helpful for those students who are not proficient in English. The amount of national language content on the Web in both languages is increasing rapidly as the number of Malay and Vietnamese-speaking users increases. However, most of this national language content is of a popular rather than specialist nature, and it is likely that English will continue to be the predominant language for online higher education publishing. In the past, students have been expected to be able to read English but communicative competency in English has not been given high priority. When universities in Malaysia and Vietnam are connected to the Internet, and the technical impediments to international collaboration are lessened, English language proficiency becomes even more important.

There is a clear distinction in Malaysia and Vietnam between those institutions that teach in English and those that teach in the national languages. English-speaking institutions are either transnational institutions, such as AIT and Monash University Malaysia, or local private universities that seek to attract international students and staff, such as Multimedia University. At these internationalised institutions, English instruction, internationalised curriculum and access to communications technologies go hand in hand, and are all necessary in providing the skills needed by the international sector of the economy.

In many ways, the renewed importance of English reinforces a cultural divide in developing countries between an internationalised elite who are able to operate in English in a globalised cosmopolitan environment, and a larger
section of the population whose access to the language, technology and educational prerequisites of globalisation are restricted. The use of European languages in higher levels of education has played a part in structuring class divisions in developing countries since colonial education began. (Altbach 1980) This situation continues today, with language playing a large significant part in determining the social mobility. (Bauman 1998)

There are some benefits for non-native English speakers in online learning environments, as compared with traditional face-to-face teaching. Students who are studying in a second language may prefer to contact their teachers via e-mail so that they can take more time in phrasing their questions in advance. (Kelly and Ha 1998) One Monash University Malaysia lecturer has found that students like asynchronous discussion forums because they can wait until they are confident before expressing themselves:

They can work out a considered response, maybe do it in Word, and then send it as an attachment, into the class... They’re concerned about their performances. They’re coming from a culture where image and standing is very important. The Australians tend to rave on a little bit more.

Another benefit is that transcribed, videotaped or audiotaped lectures allow the student to review material that is difficult for them to understand. The important factor here is not so much the instantaneous potential of electronic communications, but the control over timing that these media makes possible. This establishes preconditions for a learning environment in which differences in the fluency of communication are no longer inhibiting.

Multimedia University (MMU)

In 1995 the Malaysian government legislated to allow private universities and since then six new private universities have been established. Universiti Telekom, owned by Telekom Malaysia, was established in Melaka in 1995 as the first private university in Malaysia. It opened a second campus in 1999 at Cyberjaya in Malaysia’s Multimedia Super Corridor and shortly afterwards changed its name to Multimedia University. The total student population in MMU now is around 8000 with about 4200 in Melaka and 3800 in Cyberjaya. All of these students are on-campus student studying through face-to-face activities and through the Web.

It aims to specialise in training a technologically advanced workforce and this emphasis is reflected in its four faculties—Creative Multimedia, Engineering, Management and Information Technology. It intends to use multimedia technology extensively in teaching and learning, both on and off campus. Currently, it is following a ‘multiple medium’ approach, combining face-to-face teaching with printed resources, video, CD-ROM and online delivery. MMU has a pilot distance education programme with approximately 300 students.

Like other private universities in Malaysia, MMU aims to attract international students to Malaysia. Currently, Multimedia University has about 300 foreign students from around 25 countries. Private providers in Malaysia aim to compete with more established providers of international education by
providing courses in English at a lower cost than most other providers, and in
a country with a reputation for technological and commercial prowess. Since
the financial crisis there has been a sharp increase in the number of
international students studying in Malaysia. For example, in 1998 there were
11,733 international students in Malaysia, double the number two years
earlier. (Lee 1999)
7. Responding to Cultural Difference

Should producers of educational materials destined for international use attempt to cater to the diversity of their audience? This question is becoming increasingly pertinent, given the portability of digital media. The argument that students using educational materials produced in another country do so understanding that it may not be entirely appropriate to their local context is encountered often.

International students who travel to another country expect a different type of education than they are used to and such ‘international exposure’ is part of the appeal of study abroad for many students. (Rizvi, forthcoming) Australian educators expect international students studying in Australia to adjust to local cultural and educational norms, to a certain extent. However, as Kelly and Ha have pointed out, the situation is very different for students who are studying Australian courses in their home countries, while remaining embedded in their own language, family, work, peer and social groups. (Kelly and Ha 1998) For these students, an imported curriculum and pedagogy is transplanted independently of its social context. Students who travel overseas and who are temporarily living in the culture out of which the course emanates—and whose values it reflects—can make more sense of a foreign form of educational than students who do not know much about the culture from which the educational provider emanates. For this reason, institutions providing courses to offshore international students have a greater responsibility to make their courses culturally appropriate and relevant to international students. Lecturers and administrators involved in developing and teaching transnational courses do not always feel obliged to tailor transnational offerings to particular audiences. For example, one study of lecturers delivering distance education courses from Australia to Singaporean students found that lecturers were unaware or uninterested in differing learning styles or expectations from their Singaporean students. Lecturers interviewed in that study argued that if students in other countries enrolled in Australian programs, they should adapt to suit the style of teaching being offered, rather than teaching staff having an obligation to tailor their teaching to suit their students. They were quite clear that students should expect they education they were providing to be foreign in form and content. (Phillips 1997)

This approach, although usually implicit, also governs the development of most digital educational materials. Academics who develop online resources routinely proclaim their product’s global potential. We suspect that what this means in practice is that the product is relevant to the US market. Similarly, when asked about the reception of imported digital resources, most interviewees discussed appropriateness in terms of technical compatibility only. Expressed in our interviews was an overriding feeling that if digital educational media had been produced by a ‘reputable’ university, it must be of high quality. This suggests that branding plays a significant role in the reception of educational media products.
Tailoring Digital Media Products to Particular Student Groups

In Australia, there is now considerable experience in designing culturally appropriate educational multimedia for Aboriginal students, and this experience provides valuable lessons for developers of international cross-cultural online education. The Yanardilyi–Cockatoo Creek CD-ROM was developed through a strong partnership between the Yuendumu people in Central Australia and a multimedia production company in Melbourne. At each step of production, extensive consultation ensured that the information was presented in a way that maximised value for Aboriginal and non-Aboriginal audiences alike. (Hinkson 1998) Edith Cowan University has developed pre-university bridging courses on the Web for Aboriginal students. This incorporates instructional design features that are responsive to both Aboriginal and academic cultures. (McLoughlin 1999) The most thorough, and successful, attempt to develop culturally responsive multimedia learning material for Aboriginal students is James Cook University’s Remote Area Teacher Education Program. In this program, educators with considerable experience in teaching Aboriginal teachers went through a long-term development process to ensure that every aspect of the course was tailored to the needs of their student group—from hardware choice and course structure to choice of photographs and pacing of study modules. (Henderson and Putt 1993; Wild 1999)

These examples, only briefly sketched here, represent some of the most thorough attempts at culturally appropriate educational multimedia development in the world. (Wild 1999) On the other hand, there is a small but growing body of knowledge about the reception of learning materials by students in different regions. For example, considerable work has been done at Singapore’s Nanyang Technological University in developing multimedia learning applications that are designed specifically for a Singaporean cultural context. (Chen 1999) Ideally, developers would work with experienced educators from the receiving countries to ensure relevance and effectiveness. In practice, however, this rarely occurs.

For transnational courses, there are competing pressures. Most institutions and educators agree that products need to be tailored to particular groups of students from different countries. For example, the Global Alliance for Transnational Education’s certification manual requires transnational providers to ensure:

- Appropriateness of the course for the needs of the country
- Suitability of the cultural milieu, with clear language and local examples
- Adaptation of the content and mode of course, where necessary and feasible. (GATE 1997, p.37)

To meet these considerations, it is clear that developers of educational media require a thorough understanding of the social and educational environment into which their products are being imported. A thorough understanding of one’s audience is a necessity for effective communication in any medium, and educators must be familiar with their students’ backgrounds, assumptions and expectations. As one Monash University Malaysia lecturer commented:
You’ve got to tailor the readings and class questions you ask to groups if you want to bring them together, so that each group can respond appropriately. You can’t just use Australian content exclusively. It won’t work.

Against this impetus to tailor products to students needs are two factors that limit institutions’ motivation for local customisation. Firstly, anecdotal evidence from providers of transnational educators of a desire by students and their families to receive the same course as is taught in the institution’s home country. For example, distance education students in Singapore often want assurances before beginning courses that their academic statements and certificates will not indicate where their degree was granted. As the Monash University lecturer quoted above observed,

The idea of bringing a course from another country is attractive to some students. They want to study something with prestige and status that comes from another country. Maybe it’s not any better than what they have locally, but they perceive it to be better.

Given this privileging of Western education, institutions are concerned that localisation might actually undermine the appeal of a course or a discrete educational product.

For this reason, Monash University Malaysia does not modify their face-to-face teaching styles from the Australian models. Even though students are not familiar with this approach, the university maintains the foreignness of the pedagogical approaches so that the global uniformity of the institution’s identity is maintained. A second factor limiting the tailoring of educational materials is the producer’s desire to maximize economies of scale by delivering identical products to large and dispersed groups of students. There are also a number of practical limitations on tailoring transnational materials delivered with the aid of educational technologies. Firstly, there is always a multiplicity of cultural formations (however defined) in any educational context, including distinct cultures of the institution, the subject discipline, the teachers and the students. (Collis 1999) The examples cited above all aim to help the students and teachers move between different discrete cultures. Any course must be responsive to a number of demands for cultural inclusion, emanating variously from students, teachers, governments, employers and so on. There is also increasing diversity in student and teacher populations. It becomes difficult to tailor a product to a student body who may be living in different countries, speak many different languages at home and who may never meet in person. Most of the transnational materials now being offered by Australian tertiary institutions appear not to have been designed for a specific student group.

In most cases, subjects offered transnationally were initially developed for local students and have been internationalised by removing content specific to the home location. The degree of localisation of transnational courses clearly varies between subjects, disciplines and institutions, and more research on the processes used by institutions in internationalising courses for transnational delivery is needed, both to illuminate current trends and highlight effective approaches. It is reasonable to expect a greater degree of localisation in courses that are offered to a small number of distinct student groups.
Digital educational materials that are intended for broad international use cannot be designed so as to accommodate the breadth of a diverse global audience. For this reason, a parallel strategy of cultural flexibility is also crucial in developing new media products for international education.

**Designing for Maximum Portability**

Recently, several writers have encouraged the development of ‘cultural flexibility’ as a way of catering to cultural difference in online teaching and learning. Lyn Henderson (1996) advocates courses that manage to allow multiple forms of teaching and learning simultaneously. She suggests that rather than imposing a pre-determined style of engagement, courses should flexible enough to cater for diverse approaches. In spelling out the features of courses that should remain open, she lists several aspects of teaching and learning in binary pairs, including pedagogical philosophy (instructivism vs constructivism), role of instructor (teacher-proof vs equalitarian facilitator), value of errors (errorless learning vs learning from experience) and motivation (extrinsic vs intrinsic). Her points is that any course should be designed with these continuums in mind, and aim to allow students and teachers to choose their own style of learning or teaching as the course progresses. Such courses, she argues, would be able to accommodate multiple cultural perspectives in an *eclectic paradigm*.

Henderson has effectively put out a challenge to design courses that are capable of being all things to all people. This is a tall order. In these times, it is very difficult to mount an argument against the idea of ‘flexibility’, in any sphere of life. To be flexible is to be able to change constantly in order to cater to needs as they arise. In practice, flexible delivery is rarely as flexible as the institutional rhetoric suggests. Henderson’s argument, that the institution and teachers must be able to change constantly to suit the needs of students, fits in nicely with the rhetoric of flexible delivery but it is a long way from the practice. Given the constraints on money and time in universities, lecturers are under pressure to choose strategies that most efficiently cater to most of their students. Individual customisation would seem to work against the economies of scale that universities are currently pursuing. The market discourse in education displaces individuated learning into consumer choice for the student, and the student bears responsibility for flexibility rather than the institution.

In a recent paper, Betty Collis (1999) has responded to Henderson’s call by putting forward design guidelines for the development of such culturally flexible online course-support sites. She lists the following ten principles.

1. Plan for flexibility and adaptation when the WWW-based course-support system is first designed….
2. Design for a variety of roles for both instructors and students; allow roles to be interchangeable or modifiable. Within the same system, offer support for an eclectic variety of types of learning experiences….
3. Do not assume students will use the course-support site as a primary source of course content… Books and print materials are better for primary study materials in terms of portability, ease of use and cultural fit than computer materials….
4. Use the course support site to supplement study materials, and to integrate and manage student study activities. The course-support site should initially be as empty as possible, to be filled by the instructor and students in their own ways as the course proceeds.…

5. Design the WWW site so that students and instructors can input and make use of variety of combinations of supplementary media and other resources.…

6. Design for minimal technical levels…

7. Reduce fixed text on the screen to a minimum…

8. Offer a flexible assortment of tools that can be combined for different communication configurations.…

9. Design for organisational flexibility: so that courses of different lengths, offered at a variety of times, and with different types and levels of prerequisites and examination/assessment requirements can be supported.…

10. Be realistic about what instructors can and will do… (Collis 1999)

With these guidelines, Collis has begun to develop practical suggestions to assist instructional designers and lecturers to take account of cultural difference in flexibly delivered courses. These are very valuable, helping to specify the types of flexibility that may be useful. The practical value of such principles in course design is an open question, and evaluative research on various models of transnational flexible delivery is needed to ascertain the usefulness of Collis’s suggestions.

One Monash University Malaysia advocated this approach:

You might want to design a CD-ROM, for instance, that students could use which allowed them to walk through their learning process in say half a dozen different ways—so it doesn’t become step by step by step—and that’s feasible. It can be done on CD-ROM…. In circumstances where students have effective online access through the Internet, they could certainly use that approach as well.

Collis advocates letting students and teachers choose from a variety of forms of communication, and to participate in these in their preferred manner. Let the users set use the form of communication they are most comfortable with—anonymous or visible, synchronous or asynchronous, private or public.

**The Limits of Flexibility**

The idea of flexibility is appealing, but implementing such policies may be more difficult than describing them. The requirement for organisational flexibility will may run into opposition from bureaucratic institutions that have developed procedures enabling them to treat students as a mass in order to achieve administrative efficiencies. If making an institution more responsive to students needs increases administrative costs, there is likely to be resistance from institutions and the extra workloads may well fall onto teaching staff themselves. Such an approach would also require a considerable commitment of time on the part of teaching staff throughout the semester in order to interact with students and build the online resources as the course proceeds. The current trends in distance education seem to be pointing in the opposite direction—universities often use flexible delivery as a means of increasing economies of scale by increasing student numbers while deskilling those
responsible for ongoing instruction. (Noble 1998) There is a widespread tendency to invest in the preparation of teaching materials before a subject is offered and then offer less ongoing contact and support to students as their study proceeds.

Secondly, as well as facing obstacles within the institution, increasing flexibility may encounter resistance from students. In the context of international education, we must remember that the desirability of flexibility is itself culturally weighted. While flexibility is a buzzword in Australia and many other Western countries, in South East Asia, where much Australian offshore education is taking place, students and their families do not like being required to make choices about their course. Choices are seen as the role of the teacher, who should know what the most appropriate choices are. (Ballard and Clanchy 1997) In this case, being responsive to the desires of students would mean accepting that not all students want to study ‘flexibly’. Collis does propose that students and teachers should be able to relate to each other in a range of different ways, and this is clearly necessary to cater to student diversity. For example, there is a tendency for Australian instructors to assume the role of a peer in a reciprocal relationship. In Confucian heritage cultures, teachers are held in high esteem, making this egalitarian approach foreign and at times uncomfortable. In many parts of Asia, teachers interact less with students in class than do Western teachers, but have stronger and more informal relationships with students outside class. This is counter to conventional Western notions of professionalism in teaching. (Ballard and Clanchy 1997; Kelly and Ha 1998) Teachers need to understand that different students will have different expectations of them and be able to interact with different groups of students differently in online interactions. Sometimes this requires teachers to accept situations in which students express a clear desire for teacher-centred learning. Collis does recommend designing courses that cater to different learning styles. A step-by-step approach in which memorisation and repetition are seen as the first stages in learning is common in Confucian heritage cultures. Although this is also common in elementary education in the West, students are more often encouraged to experiment and explore first, then develop a deeper and more thorough understanding. In much of South East Asia, the teacher decides how much information to give to the students as a basis for later analysis and exploration. (Kelly and Ha 1998) The degree of flexibility of the teacher will be constrained by many factors, so as well as being adaptable to students’ preferences, it is important that teachers are able to explain their teaching styles, and the presumed learning styles, that will be used during the course. Designers of educational media need to be aware of the expected roles of students and teachers in the learning environments in which their products will be used. This is especially critical in international education and global media production.

The third issue is more fundamental, and concerns flexibility as a generalised response to the abstraction of relationships that accompanies the technological mediation of interaction. While information and communications technologies are able to connect people all over the world, making transnational education practical, the resulting connections are very different from the connections established by people in the same place. In offshore international education, the availability of technologically mediated communication does not alter the
fact that distance and borders separate teachers and students who often have
different languages, cultures and histories. The relationships that ensue across
this distance are much more abstract than traditional teacher-learner or learner-
learner relationships. Without mutual co-presence, the participants have access
to little information about their interlocutor compared with face-to-face
interaction. The fundamental problem is that teachers and students cannot
know much about each other across this distance, whether they use e-mail or
not. This makes tailoring a course to students’ needs difficult, because students
and teachers are far removed from one another’s social context. Market
research tends to replace local knowledge and experience. Flexibility in online
education is an attempt to acknowledge this lack of mutual understanding.
However, developing curriculum and pedagogy ‘on the fly’ during the
teaching of a subject may well have cause students to have less understanding
of what is expected of them and of their teacher. In such abstract relationships,
participants often crave a clear statement of requirements and content from the
outset.

Collis is optimistic that online teaching can allow responsiveness and
interaction between disconnected participants. While the course materials that
are produced in advance will be generic and standardised for all students, the
online environment, Collis believes, can allow localisation. The Web-based
component of a course can be used to supplement the generic print-based
study materials with local input, allowing the particularistic experiences of
students in different places to be expressed. By being initially empty, the
course-support site provides an opportunity for students and teachers to
localise the course to suit their own needs as the course proceeds. Students and
teachers in different locations should be able to add to the course by inputting
URLs, notes, presentations and images. In a culturally diverse classroom,
study materials must focus on issues of international significance that are thus
relevant to all students. Students will approach this material from their own
perspective, based on local conditions. The course-support site can act as a
forum for students to reflect on the generic material from a distinctive
position. Collis advocates allowing students to create the space rather than
enter a pre-formed set of resources. Limiting the amount of pre-set text and
imagery in the site minimises the risk of an inappropriate tone and style being
used. As the course proceeds, the style of online communication can be
developed through interchange between participants. The rationale for Collis’s
suggestions is understandable. These suggestions are worth trying out, but this
openness runs the risk of further alienating students rather than reassuring
them. In such an abstracted learning space, increasing the openness and
flexibility of the interaction may mean that the experience of students is less
clearly defined and less predictable.

The Role of Teachers in Promoting the Portability of Educational
Media

A more effective way of overcoming the abstraction caused by mediated
teaching and learning relationships is by relying more on face-to-face
relationships with teachers. Local teaching staff play an important role in
localising generic international materials and can help their students participate in an international online environment. In transnational education, local lecturers, tutors and support staff are able to monitor the effectiveness of local student services, such as computing services, library services and administration. Administration and library services are increasingly being delivered online, which has the potential to overcome difficulties of distance for offshore students. Local teachers play an important role in shaping the design of such online systems so that they are as useful to students in remote campuses as they are to students in central campuses. However, local teaching staff often have little control over the content and form of generic study materials, which are often produced in the central campus by teachers with little familiarity with offshore students. Teachers who are distant from their students should be open about their remoteness and attempt to transform the outlying peripheries into multiple creative centres as much as possible. Building on the local knowledge of face-to-face teachers in this way requires coordination between a geographically dispersed teaching team.

One Monash University Malaysia lecturer emphasised the importance of cross-cultural training for staff involved in transnational delivery, whether they are based in the home country or the host country:

If we want to move down that international path … we’ve got to be prepared to put staff in who’ll engage those debates, rather than people who have their own black and white views of what the world’s like. This, I suspect, is going to involve a lot of staff rethinking and retraining because some people do have very precise views about how the world should be, and that makes it difficult when you try to engage different sorts of cultural learning experiences. … What it might mean is that we have to invest a lot more in getting staff to travel to those locations where the courses are run. Rather than flying in and flying out, to be there for extended periods. That was the argument put up for me to come up [from Australia to Malaysia] for at least two years, because I know the environment and I know how to relay backwards and forwards the kinds of adjustments you need to make.

In many cases we encountered more fundamental concerns about the lecturers’ technical knowledge and skills. Many interviewees commented on the lack of staff training as the weakest link in the process of introducing educational technology. For example, due to the hardware focus of the Malaysian Smart Schools program, one Malaysian lecturer told us, ‘in some schools we’ve got 90 PCs for 400 children—fantastic—but nobody knows what to do with it. It’s lying there—the teachers are not sure.’ As a lecturer in Vietnam noted, lecturers are often not able to develop sound uses of technology themselves:

We may require specialists in the use of the technology. We know the content, but we may have to consult some people that know the tool really well, instead of learning the tool ourselves. Some people might have that ability I guess, maybe some of the teachers could use the tool effectively but I would guess, more than half of them would not be able to use whatever tool is available that effectively. So, in some sense, you need staff to help in those areas. Many of these organisations when they start up there is no budget for that. The budget is all gone on the technology—there’s no people.

The development of educational technology, in practice, is largely a matter of trial and error in these countries as it has been in Australia. It is clear that
teaching staff must become familiar with the tools before they can think about how to contextualise and localise foreign teaching materials.

The most effective way of responding to these needs may be in the expanded use of teachers’ notes. Even though it is often not feasible to tailor educational media to local needs, it is much easier to produce teachers’ notes that allow teachers to more effectively mediate between the cultural locations of producers and the product’s end users.

**International production of international educational resources**

The growing use of educational technologies in institutions around the world makes it possible for unprecedented levels of international cooperation to be incorporated into the production of core curriculum and supplementary course materials. At this time, when the educational use of the Internet for international education is in its infancy, there is a real need for cross-cultural interaction in order to shape the development of global media. An opportunity exists for educators around the world to foster the development of cultural diversity online. Success in a global marketplace requires taking into account the needs of end users from diverse locations, and incorporating their needs and experiences into all stages of development. Because of the extensive links between educational institutions in our region, the multinational and multicultural links between educators needed to produce such products are already in existence. Innovative projects that take advantage of these networks will be able to produce educational content with far broader application. Such collaboration promotes cultural sensitivity between educators and can overcome the divides that currently exist between producers and consumers in different parts of the world.
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