SYNOPSIS
Educational institutions in the 21st century are facing many new challenges resulting from the dramatic paradigm shifts the digital revolution is bringing to the information and communication technologies. The advent of this revolution has allowed the globalization of the educational market and challenges traditional teaching-learning strategies: close down the classroom and logon to web 2.0, or is it web 3.0? The ethical issues raised by such scenarios range from the right to information, to education as product for sale, to national sovereignty. The Brazilian scenario will be used as a basic reference. Terms: Digital revolution – Globalization – Teaching-learning strategies.
**Introduction**

The ability to convert images, sounds, data, and movement into bits (zeros and ones), pump these bits through wires, radio waves, fiber optic cables, laser and infrared beams, and then convert them back into the “material” world has transformed business, entertainment, communication, and the lifestyles of a significant segment of people in the world. This digital revolution, correctly called “revolution”, has forged the “marriage” of computing and telecommunications giving birth to the Information Society, which is quickly evolving into the Knowledge Society. The ethical challenges rising from this fast transformation of the world are as diverse as the digital gadgets available on the market. While technology and education open to debate a broad spectrum of issues with underlying ethical implications, this essay will focus on two basic points: globalization of education and the challenges (Information and Communications Technologies) ICT-induced paradigm shifts are bringing to how educational institutions accomplish their mission, educationally and administratively.

“Unite the pair so long disjoin’d, Knowledge and vital piety; Learning and holiness combined. And truth, and love let all men see. – Come, Father, Son, and Holy Ghost”. The words of this hymn were written by Charles Wesley for the dedication of the Kingswood School, and they show Wesley’s view on education. The picture below attempts to combine the classical view of the knowledge hierarchy and Wesley’s view.
Globalization has also enhanced a consumer market view of education. Higher education in Brazil is likely to be controlled by 10 or 12 large national and international corporations.

**Scenarios**

The Brazilian hypermarkets (a mix of large supermarkets and Wal-Mart style stores) are the largest resellers of computer products in Brazil. A computer can be “purchased in up to 24 easy monthly installments”. Computers have become the latest consumer fad. Notebook sales are up 200% and LCD monitors 180% compared to the year before.

Online purchases grow at a rate of 44% a year. Mobile phones have outnumbered fixed phone lines with two units for every three persons. Brazilian banking technology is among the most advanced in the world and has had instant transactions from ATMs for many years.

**Globalization of Education**

The subject of globalization of education, with the advent of the Internet, raises issues of cultural imperialism, international labor force segmentation (by curriculum control and management), the uncontrollable international flow of money and ultimately the sovereignty of nations.

**Brazilian Universities go to the Stock Market with IPOs**

Globalization has also enhanced a consumer market view of education, degrees being managed as products to be sold: a little explored market to be conquered. Several Brazilian higher education institutions made IPOs in the last quarter of 2007, raising over half a billion dollars. Private universities in Brazil account for 75% of the higher education student body.

**Acquisitions by Foreign Capital**

Combined with the above situation, several international educational corporations (i.e., Whitney, Laureate, Apollo, De Vry) are investing in Brazil, purchasing universities and colleges. According to Hoper Educational, in the next years higher education in Brazil is likely to be controlled by 10 or 12 large national and international corporations. This is not a mere projection, but an aggressive commercial enterprise already underway. The surviving institutions should be small, specialized, and segment-oriented.

**The Challenge to Church-related and Community Educational Institutions**

This poses a great challenge for the church-related and community institutions. How will these institutions accomplish their religious and educational missions in this heavily commercial environment? They will have to compete with low tuition fees offered by the large educational groups. Cutting costs brings to the arena the issue of quality and relevance of the education offered. This will raise ethical questions for which a clear...
What is quality education? Are there degrees of quality? Where do the institutions establish their limits for quality? Can there be compromise on the issue of quality and relevance? Undoubtedly difficult decisions will have to be made and will have to be confronted with the Christian ethical values professed. This is no easy task. It will require a deep understanding of our world and our mission as Christian educational institutions.

**DISTANCE LEARNING ON A GLOBAL SCALE**

Distance learning should grow in Brazil at a rate of 40% a year through 2010 according to the Brazilian Distance Education Association. Reaching abroad for Portuguese-speaking students is in the plans of several Brazilian universities.

**DIGITAL CAMPUS MANAGEMENT SYSTEMS**

Academic Management Systems such as Peoplesoft, and more recently SAP and Sungard are making a strong thrust to enter the Brazilian market competing with national products. They proclaim to bring the “best practices and standards” from the first world to the developing nations. But are they the best practices for the local reality? Many of these systems are made available in the outsourcing mode, and even in the new SaaS (Software as a Service) trend. Confidentiality and security are standard parts of the contracts, but the simple fact that hosting may be in one country and the backup site in another one means that the contracting institution may not be able to follow the political environment adequately in these countries and suddenly find that their legislation has changed, thus creating breaches in the confidentiality and security contracted. Once the breach occurs, the resulting damage is done. A lawsuit may not be able to truly compensate for the damage. It may appear to be a paranoid notion, but recent changes in security laws in several countries raise the issue. It is now public that during the 1960s and 70s, some military regimes in South America exchanged confidential information which resulted in the “disappearance” of opposition leaders.

**EDUCATIONAL CONTENT OFFERED ON A GLOBAL SCALE**

Publishing houses, such as Pearson’s and Wiley, are digitizing their publications with integration to LMS systems. This integration is primarily with major commercial e-learning platforms such as Blackboard and WebCT. The trend is to have global e-learning systems which can integrate with global publishing houses. This can lead to uniform content and standard learning processes globally, which raises serious questions about the future of local culture and values, indigenous knowledge and national identity, as well as issues of accessibility such as costs, language, and the availability of technology.
THE ISSUE OF COPYRIGHT INFRINGEMENTS AND PATENTS

Educational institutions are dealing with some very immediate issues such as copyright infringements, patents, and academic access to information. The reality of content control and the legal attempts to force campuses to implement copyright infringement controls are in direct confrontation with the issue of the free flow of information and the alternative presented by the Digital Commons’ proposal. For many institutions patents are a significant source of income. Such practice is based on the concept of knowledge as private property in opposition to knowledge as pertaining to humanity. Access to information is another challenge. The Brazilian government spends approximately US$ 35 million to fund a knowledge portal (Portal Periódicos/Capes), which provides access to worldwide scientific periodical databases. However, in order to have free access to this portal, the institutions must have at least one high rated graduate program. This brings back the issue of quality versus costs for our institutions.

Paradigm Shift 2.0

Willingness to close the doors of the traditional classroom and grasping the learning styles of the Net generation has been no easy task. Providing an effective learning environment for the Net 2.0 generation is a whole new challenge. They bring a new set of learning skills and abilities. Their brains have a different cognitive framework, simply put: they learn differently from previous generations.

The Net 2.0 school must be able to handle virtual reality, offer “intelligent” search engines capable of instant response, establishing multitask and collaboration environments. Much of this is taking place outside the boundaries of the institutionalized educational organization in a seemingly uncontrolled chaos, at least for some academic administrators and faculties. Issues such as: how to assess the student’s development and the acquired knowledge? To formulate these questions regarding knowledge and “be an apprentice” are still greater challenges. Contents are likely not be found in textbooks, but in an Open Education source, such as Wikipedia, Second Life or similar environments. Physical distances will be irrelevant and language barriers will be handled by translation engines. Technology can handle this with relative ease. Just look around: Google, Orkut, Second life, Facebook, MySpace, and many collaboration tools and search engines.

Can human beings handle this new world in a constructive manner? Will individuality prevail over community? Or will community be virtual and individuality, material? Will cultural, religious, language, and national boundaries become irrelevant, or will they become deci-
sive? And most importantly, are our educational institutions prepared for such reality? What values will be hallmarks of our institutions?

New ethical issues must be addressed to offer a set of guidelines for a Net 2.0 world. Yet, old issues such as the “digital divide” are still unanswered. The Net 2.0 world is already happening and the ethical implications for society and, ultimately, for a more just and human world will need to be addressed.

The experience of the Methodist University of São Paulo

The Mission statement of the Methodist University of São Paulo clearly dictates: To effectively participate in the education of persons, influencing and contributing to the improvement of the quality of life based on knowledge and ethical values. And its Vision is: To be an educational reference in the construction of a learning community, recognized nationally and internationally for services with quality and social relevance, with flexible, creative, and innovative practices. As a result, there has been a continuous effort in building the concept of citizenship in all aspects of the institutional life.

From its inception, the Methodist University of São Paulo has been a laboratorial institution with a strong emphasis on practical learning supported by a solid theoretical foundation. This has resulted in an institution that has dealt historically with intensive use of technology in its daily operations and has faced difficult ethical issues. In the past eight years a rapid migration from analog to an almost totally digital environment has only enhanced the awareness and urgency to find answers and guidelines.

Parallel to such technological migration, the institution almost tripled its enrollment, with approximately twenty-two thousand students in undergraduate degree programs. Over five thousand of them belong to the distance education program which began only two years ago, and are distributed among forty-two remote sites. As a result of all these factors, there has been the need for change in administrative procedures but above all a change in the pedagogical approach.

The new information, communication, and learning technologies require that the institution deal with issues such as digital illiteracy of the faculty and student body, blended learning, new assessment strategies, virtual learning environments and establishment of the relevant ethical standards for this new reality. In this new context, a basic issue must be addressed: How can church-related schools fulfill their educational mission and be a relevant and transforming force in a constantly changing society?
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