

# THE REACTIONS OF TERTIARY EDUCATION TO THE GLOBAL CHANGES

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*Tertiary education exercises a direct influence on national productivity which largely determines living standards. Tertiary education institutions can play a critical role in offering appropriate education, training and research programs which in turn support knowledge-driven economic growth strategies. They have some essential functions such as: the capacity to train a qualified and adaptable labor force, the capacity to generate new knowledge, and the capacity to access existing stores of global knowledge and adapt it to local use. To fulfill these functions it is necessary to respond to changing education and training needs, to adapt to shifting tertiary education landscape and to adopt more flexible modes of organization and operation.*

*Key Words: knowledge, information, tertiary education, university*

## **Needs for changing in education and training**

Nowadays an important role in economic development, as it is widely recognized, is played by the ability of a country to acquire and apply knowledge. Knowledge-driven economies experience a stronger demand for higher skills in the workforce. Studies on the evolution of labor markets have evidenced the growing proportion of employees with tertiary level qualifications and the rising rates of return on tertiary education.

Another dimension for change is the growing importance of continuing education in order to update one's capacities and qualifications on a regular basis because of the short "shelf life" of knowledge, skills and occupations [8]. At the post-secondary level, for instance, the traditional approach of studying for a discrete and finite period of time to acquire a first degree or to complete graduate education before moving on to professional life is being progressively replaced by practices of lifelong education. Graduates will be increasingly expected to return periodically as adults to one or more tertiary education institutions to acquire, learn to use and relearn the knowledge and skills needed throughout their professional life. This phenomenon goes beyond the narrow notion of "second chance" for out of-school young adults who did not have the opportunity to complete much formal study. It has more to do with the updating and upgrading of learning required to refresh and enhance one's qualifications to keep pace with innovations in products and services.

An important consequence of the acceleration of scientific and technological progress is the diminished emphasis in tertiary education programs on the learning of facts and basic data in itself. There is a growing importance of what could be called methodological knowledge and skills, (i.e. the ability to learn in an autonomous manner). Today, in many disciplines, factual knowledge taught in the first year of university study may become obsolete before graduation. The learning process now needs to be increasingly based on the capacity to find, access and apply knowledge to problem-solving. In this new paradigm, where learning to learn, learning to transform information into new knowledge, and learning to transfer new knowledge into applications is more important than memorizing specific information, primacy is given to information seeking, analysis, the ability to reason, and problem-solving. In addition, competencies such as learning to work in teams, peer teaching, creativity, resourcefulness and the ability to adjust to change are also among the new skills which employers value in the knowledge economy.

A last dimension that we mention here refers to the growing attractiveness of degrees and credentials with international recognition. In a global economy where local firms produce for overseas markets and compete with foreign firms in their own domestic markets, there is a rising demand for internationally recognized qualifications, especially in management related fields. Many entrepreneurial university leaders have been quick to identify and capitalize on this trend, as evidenced by the multiplication and expansion of MBA-type programs throughout the world.

### **Diversification of the tertiary education system**

The appearance of a variety of new institutions alongside the traditional universities, such as short duration technical institutes and community colleges, distance education centers and open universities have created new opportunities to meet the growing social demand. A second wave of institutional diversification is now discernible, with the emergence of new forms of competition in tertiary education that transcend the traditional conceptual, institutional and geographical boundaries among organizations, segments, sectors and countries. The main new actors and institutions emerging in the “borderless” tertiary education market are: virtual universities, franchise universities, corporate universities, media companies, libraries, museums, and education brokers. On the heels of these new actors come software producers, publishers, entertainment firms and others seeking to tap the potential of an emerging international market in tertiary education [1].

The decreased importance of physical distance means that the best universities in any country can decide to open a branch anywhere in the world or to reach out across borders using the Internet or satellite communication links, effectively competing with any national university on its own territory. Distance education is sometimes delivered by a specialized institution set up by an alliance of universities.

Franchise universities are another form of competition. In many parts of the world, but predominantly in South and Southeast Asia and the formerly socialist countries of Eastern Europe, there has been a proliferation of overseas “validated courses” offered by franchise institutions. The cost of attending these franchise institutions is usually one-fourth to one-third what it would cost to enroll in the mother institution.

Corporate universities constitute a third category of new competitors with which traditional universities must increasingly reckon, especially in the area of continuing education. It is estimated that there are at approximately 1,600 institutions in the world functioning today as corporate universities, up from 400 ten years ago. Corporate universities operate with their own network of physical campuses, as a virtual university, or through an alliance with existing tertiary education institutions. Experts are predicting that, by the year 2010, there will be more corporate universities than traditional campus-based universities in the world, and an increasing proportion of them will be serving smaller companies rather than corporate giants.

Media enterprises, publishing companies, libraries and museums and secondary schools have also extended their reach to the world of tertiary education, taking fully advantage of the new information and communication technologies. Although this new form of competition is more difficult to track, it is becoming significant at least in the US and the UK. Examples involve publishing companies providing services linked to curriculum design and the preparation of educational materials for online delivery, or museums and libraries offering continuing education courses.

The last form of non-traditional competition comes from the new academic brokers, virtual entrepreneurs, often web-based, who specialize in bringing together suppliers and consumers of educational services in many different areas. This kind of companies build, lease and manage campuses, produce multimedia educational software, and provide guidance to serve the training needs of corporate clients world wide. Dozens of web-based companies act as clearinghouses between schools and prospective students, offering information about academic and financial resources.

### **New changes in structures and mode of operation**

Faced with new training needs and new competitive challenges, many universities have undertaken important transformations in governance, organizational structure and modes of operation. The main purpose is to increase institutional flexibility and to accelerate the adaptive capacity of tertiary education institutions and programs. Many changes are brought about or facilitated by the application of new technologies. These can be used as: a resource tool (i.e. an electronic library), a pedagogical tool to transform the learning process, a communication tool supporting new modes of information sharing, an

administrative tool to improve the efficiency and cost effectiveness of academic management processes. Such innovations in the way tertiary education institutions are structured and operate create in turn new challenges concerning the nature of the education experience, new dimensions of academic management, new patterns of governance and financing, new quality assurance requirements, and issues of intellectual property rights. The necessary reforms refer to the:

- program offerings,
- academic structure and organization,
- pedagogical processes and modes of delivery,
- physical infrastructure,
- the teaching profession.

The evolution towards lifelong learning means that young high school graduates will gradually cease to be the primary clientele of universities. As a result, universities must organize themselves to accommodate the learning and training needs of a very diverse clientele: working students, mature students, stay-at-home students, traveling students, part-time students, day students, night students, weekend students, etc. One can expect a significant change in the demographic shape of tertiary education institutions, with more students pursuing a second or third degree or a professional degree, and a larger share of students, young and mature, enrolled in short term continuing education activities [8].

As tertiary education systems move from elite systems to mass systems, from an emphasis on teaching to a focus on learning, students become more important actors as primary clients, consumers and learners. This requires the establishment of appropriate organizational and management mechanisms to handle their new roles and the new challenges that they represent. Tertiary education institutions need to develop, in particular, capacities to conduct beneficiary assessments, to inform and guide students concerning career choices, to accommodate the needs of students with special difficulties, and to maintain linkages with graduates as resources for student placement and fund-raising.

Effective labor market feedback mechanisms, such as regular consultations with employers and alumni, are indispensable for the purpose of adjusting curricula to meet the changing needs of industry. There is no better linkage than when a new tertiary education institution is fully integrated into a regional development strategy.

In terms of organizational structure, there is a need to articulate traditional disciplines differently as a result of the emergence of new scientific and technological fields. The new patterns of knowledge creation do not imply only a reconfiguration of departments into a different institutional map. Is more important the reorganization of research and training around the search for solutions to complex problems, rather than the analytical practices of traditional academic disciplines. This evolution is leading to the emergence of what experts call “transdisciplinarity”, with distinct theoretical structures and research methods [5]. This trend transcends hard science, and touches social sciences, as well.

The introduction of new pedagogical approaches supported by alternative delivery mechanisms has just begun to revolutionize the way teaching and learning can occur in tertiary education. The possibility of concurrent use of multimedia, computers and the Internet can allow for meaningfully more active and interactive learning experiences, such as peer tutoring and self directed learning, experiential and real world learning, resource-based and problem-based learning, reflective practice and critical self-awareness, or any combination. Traditional frontal teaching can be replaced by or associated with asynchronous teaching in the form of online classes that can be either scheduled or self-paced. A new pedagogical model involves in particular an active engagement of the students rather than a passive reception of information, opportunities to apply new knowledge to real life situations, the ability to represent concepts and knowledge in multiple ways rather than just with text, learning as a collaborative activity rather than an individual act, and an emphasis on learning processes rather than memorization of information [7].

Anyway, modern technology is not a panacea. To create a more active and interactive learning environment, faculty must have a clear vision as to the purpose of the new technologies and the most effective way of integrating them in program design and delivery (experts call “instructional integration”). Then they must educate themselves in the use of the new pedagogical channels and supports. Quality online education is best achieved with relatively small class sizes, not to exceed 30 students. Moreover, it does not seem desirable to teach an entire undergraduate degree program only with online classes if students are expected to learn to think critically and interact socially in preparation for professional life.

Combining online and regular classroom courses gives students more opportunity for human interaction and development of the social aspects of learning through direct communication, debate, discussion, and consensus building. These pedagogical requirements apply also to the design and delivery of distance education programs which need to match learning objectives and appropriate technology support.

The teaching profession is also evolving as a result of transformations in academic and pedagogical approaches. With a proper integration of technology in the curriculum, teachers can move away from their traditional role as one way instructors toward becoming facilitators of learning. The introduction of multimedia and computer-based teaching is indeed leading toward the separation of the traditional functions of professors: course design, selection of textbooks and readings, course delivery, and assessment. The need for tertiary education institutions to be able to respond rapidly to changing labor market signals and to adjust rapidly to technological change may also require more flexible arrangements for the deployment of academic staff and evaluation of its performance. Under a more radical scenario, the multiplication of online programs and courses could induce tertiary education institutions to contract independent professors not affiliated to any specific college or university to prepare courses designed for a particular person or a group of people.

## Conclusion

While it is not entirely sure that we will witness to the demise of the traditional pedagogical model, what is certain is that schools and universities are called upon to change drastically under the pressure of increased competition. But the successful integration of technology into the learning process will require a cautious approach. Despite the many advantages that modern technologies can offer, their effectiveness depends on a clear strategic vision of their role in support of a new pedagogical project. It is important to define first the new pedagogical approach that a school or a university wants to implement and then to look for the most appropriate technology to provide that pedagogy.

## References

1. Bennell, Paul, and Terry Pearce. 1998, *The Internationalization of Higher Education: Exporting Education to Developing and Transitional Economies*. IDS Working Paper 75. Institute of Development Studies, University of Sussex, U.K.
2. Burbules, N.C. (2000), *Universities in transition: The promise and the challenge of new technologies*, *Teachers College Record*, vol. 102 (2), p. 271-293
3. Castells, M. (2000), *The rise of the network society* 2nd ed., Blackwell Publishers Ltd
4. Duderstadt J. J. (7 march 1997), *The future of the university in an era of change*, <http://milproj.ummu.umich.edu/publications/change/download/change.pdf>
5. Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., and M, Trow (1994) *The New Production of Knowledge: Science and Research in Contemporary Societies*. London: Sage.
6. Hanna, D (1998), *Higher Education in an Era of Digital Competition: Emerging Organizational Models*, „*Journal of Asynchronous Learning Networks (JALN)*”, Vol. 2, No. 1, p. 66-95
7. Kozma, R. and J. Johnson (1991). *The technological revolution comes to the classroom*. *Change*. January/February 1991
8. Wagner, A. (1999). “Lifelong Learning in the University: a New Imperative?”, in Hirsch, W. and L. Weber, eds. 1999. *Challenges Facing Higher Education at the Millenium*. American Council on Education / Oryx Press, Phoenix, pp. 134-152