

# Institutional and societal implications of the virtual university

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## Towards a more realistic discourse

Discourses on the roles that information and communication technology, computing and networking technology or the virtual university are likely to play in the higher-education system and beyond tend to be emotional and often lack the degree of rationality one would wish for in higher education, i.e. a sector characterized by an agglomeration of highly intelligent people. We often observe that the advocates of technological innovation in higher education compare optimal potentials of the innovation envisaged with the mediocrity of the average situation in established systems. In turn, sceptics consider the errors surfacing in the implementation phases as indicative of the low potential for innovation. Often, very simplistic arguments are put forward about the needs of the employment system, the teaching and learning behaviour of students or the effects of certain learning procedures. Advocates of new technologies often overlook the experiences acquired in distance teaching and learning prior to the advent of new technologies. Altogether, there is not always a readiness to assess the processes and impacts of these innovations in a balanced way.

This state of affairs is typical of the early stages of innovation, when innovators tend to act as 'missionaries' who need exaggerated claims and derogative treatment of opposite views to reinforce their own beliefs and their readiness to persuade the others, whom they consider irrational opponents of the innovation at stake. There are indications, though, that the period of exaggerated praise and condemnation is gradually giving way to a period of more realistic discourse on the potentials and limitations that the new information and communication technologies offer for higher education.

## Expected impacts: the state of debate

The available expert literature on the implications of new information and communication technologies for the higher-education system either draws from experiences or speculates about imminent changes. Naturally, the views vary in many respects. It seems justified, however, to claim that certain directions of

change are considered likely by the majority of experts. We are likely to experience the following changes.

- (i) The new information and communication technologies tend to blur the distinction between distance education and campus education. Campus education absorbs components of distance education based on new information and communication technologies. There might be few virtual universities in the future or there might be many. This notwithstanding, the most striking change will rest in the fact that all institutions of higher education will have certain virtual components.
- (ii) Similarly, the new information and communication technologies provide the opportunity to create new mixes of and linkages between initial higher-education programmes and lifelong education. Notably, facilitated access to higher education for the adult learners might reinforce concepts of recurrent education.
- (iii) The new information and communication technologies provide opportunities for internationalization of higher education. The teachers and students can enrich teaching and learning by facilitating access to knowledge from many parts of the world, which in the past was often accessible only through international mobility or with a considerable delay.
- (iv) The facilitated access of information is not only interpreted as an opportunity; experts have also pointed out indications of systematic biases. The new information and communication technologies tend to be employed in a way that might be characterized as neo-colonialistic: certain education concepts prevail, certain paradigms and substance are more likely to be distributed than others, and the spread of the lingua franca, English, through information technologies transports specific cultures.
- (v) Individual teachers, faculties and institutions of higher education face a loss of control over the curricula as a consequence of the spread of new information and communication technologies. In the past, the absorption of the major source of external knowledge, i.e. publications, could be steered to a substantial extent by purchase of literature, recommendations for reading and interpretation. Now the new information and communication technologies facilitate access to a wealth of knowledge available at a distance and suggest the absorption of complete packages of courses from the outside.
- (vi) The new information and communication technologies might lead to a complete re-structuring of the existing hierarchy of credentials. As the competences acquired by the individual students are likely to be determined to a lesser extent than in the past by a single institution of higher education, there might be erosion of the notion that an individual institution or faculty is the guarantor of a student's competence. Whereas it is widely held that the erosion of the traditional power of credentials is to be expected, views vary substantially regarding the possible new custodians of knowledge and competence.
- (vii) The spread of information and communication technologies in higher education is pushing individual institutions to seek co-operation. Inter-university co-operation and inter-sector co-operation, i.e. between higher-education institutions and, possibly, commercial institutions providing

- technology and maybe even educational technology, have to grow in the face of the magnitude of both the technological potentials and the costs incurred.
- (viii) Information and communication technologies are also likely to increase competition between institutions of higher education. A major factor in reducing competition among these institutions, i.e. the regional market of students, will lose its traditional importance.
  - (ix) Altogether, the spread of new information and communication technologies has led to increased clashes between academic and commercial cultures in higher education.

## Open questions

Noting common views held among experts as regards some emerging changes does not imply that divergences and controversies have vanished. In fact, the list of major controversial issues or questions is no less impressive than the list of themes given above.

- (i) Do the new information and communication technologies offer more opportunities for institutions to take strategic action, or are institutions more likely to be driven by events?
- (ii) Do the new information and communication technologies allow for a greater variety of curricular approaches and for a greater diversity of students than the traditional modes, or do they, on the contrary, create pressure for a higher degree of homogeneity and standardization?
- (iii) Are competences such problem-solving and socio-communicative skills, which, according to the employers, are not taken care of sufficiently by universities, more likely to be fostered by new information and communication technologies or, on the contrary, by modes of learning associated with face-to-face experiences, e.g. internships?
- (iv) Do the new information and communication technologies facilitate access to the highest levels of higher education for those who had limited access in the past, or does the spread of new technologies draw even more clear-cut dividing lines between the haves and the have nots?
- (v) Does the spread of new information and communication technologies counteract the traditional artificiality of credentialing, based on stereotyped perception of competences, or does it merely create a new artificial credentialing system?

## Achievements of the conference

A conference bringing together a broad range of expertise as regards the conditions and problems of higher education is likely to illustrate the current state of reflection as far as its major theme is concerned. Undoubtedly, the conference 'The Virtual University? Educational Environments of the Future', held in October 1999 and organized by the Academia Europaea and the Wenner-Gren Foundation, succeeded in recalling available knowledge on the already visible implications of the virtual university for the higher-education system and its societal function as well as on the likely developments in the near future.

The conference provided more than such an account. It made the participants aware of new perspectives that cannot be called conventional wisdom. At least, the following issues were more prominently underscored at the conference than one could have expected on the basis of the available expert literature.

First, the potentials of the new information and communication technologies tend to be interpreted differently in efforts, on the one hand, to establish a virtual university and, on the other, to innovate a campus university. In the latter perspective, the new technologies provide interesting options, but look far less revolutionary, as the discussion on the former perspective suggests.

Second, debates on the impact of new information and communication technologies often take very narrow views on the challenges that universities face today. There are many equally salient factors, e.g. increasing enrolment, the emergence of a knowledge society, the crisis of the state, internationalization or increasing social tensions as regards the distribution of power and wealth. The spread of information and communication technologies does not necessarily pose the most powerful challenge to higher education, but it is among the most crucial — not least because they interact with various other factors.

Third, it seems inappropriate to contrast the presumed holistic, closely intertwined, processes of communication at a traditional campus university with a presumed fragmented virtual university. On the one hand, the traditional university was often far more fragmented, as it tends to be described in contrast to a virtual university. On the other hand, the spread of information and communication technologies calls for substantial efforts of co-operation and communication within a university.

Fourth, the spread of information and communication technologies might have profound impacts on the relationships between teaching and research. Debates in the past have often focused separately on the role these technologies might play in teaching as well as in learning, but their impacts on the links between teaching and learning might be more salient. One could imagine, for example, that the research potential will be more strongly stratified between individual higher-education institutions in the future, because fewer institutions might be expected to be the generators of expertise relevant for teaching.

Fifth, evidence was provided that the impacts of new information and communication technologies might vary substantially according to the social and cultural context. Also, they do not pose identical challenges to different traditions of university systems. The presumed universal character of the new technologies reinforces the widespread inclination to underestimate the role that cultural and societal settings might play in shaping the application of these technologies in higher education.

Altogether, the thoughts presented during the conference suggest that new information and communication technologies shape the future of higher education in a less deterministic way than many of their advocates and their sceptics tend to assume. The university has more room for action as regards the ways it employs the new technologies. The more the actors in higher education know about the likely trends and the biases implied, the more they are challenged to take strategic action.