The transformation of higher education: convergence of distance and presence learning paradigms

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1.   Names and Roses...[1]

Remembering Shakespeare or Umberto Eco, names are just words we use conventionally for the convenient identification of objects we are referring to. We may even use words and expressions in an improper sense, as metaphors, in literature and in formal speeches; or, in a more relaxed context, just as an approximate way of referring to something that is familiar enough to everybody involved in a conversation. But sometimes we have to be much more precise and careful when dealing with an issue of important technical or scientific content —or we risk being irrevocably misunderstood.

This reasoning applies to many situations in today's Education, given the fact that a number of concepts are not yet stabilised into generally accepted definitions. Just to provide two examples, there was a number of very motivating exchanges of opinion between theoreticians in the field of Distance Learning, in the 70's, trying to establish the fine conceptual distinctions between this expression and some parent ones: Distance Education, Open Learning, Flexible Education, Resource-Based Learning, Distributed Learning, etc. Also, in organisational terms, there is the interesting possibility of trying to identify the differences between an Open University and a Distance Teaching University (and, more recently, an Off-Campus University and a Virtual University).

Coming back to the metaphor of the names of the rose, considering that the Distance Learning principle is more than a century old and that Open Universities have been successfully operating for thirty years, in all regions of the world —we may reach the conclusion that it is more rewarding to establish the common points in all the slightly distinct methodologies involved than to try to point out their differences.

From this perspective, there is a current tendency to use the umbrella expression "Open and Distance Learning" (ODL) to encompass all the methodologies giving a major role to the situation of students learning by themselves, without the regular presence of a teacher, in whatever place they chose, rather than needing to be intensively present in a classroom.

From our point of view, the different instruments students use for this purpose (books, magnetic recordings, broadcast materials, computer courseware, video or computer conferencing, Internet-based contents) do not change the basic methodologies involved in ODL. These ones require, in short, three main simultaneous conditions:

- That a bilateral, institutional link is established between students and the teaching system and that it is recognised by both parties;
- That quality learning materials are available and made accessible to all students;
- That student support mechanisms exist for the purpose of assisting them, in pedagogic and scientific terms, along their learning process, as well as for providing and receiving all kinds of relevant information.

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1.   "What's in a name? That which we call a rose

By any other word would smell as sweet".

W. Shakespeare, *Romeo and Juliet*, Act 2, scene 2, lines 43-44.

The first requirement has an institutional nature, establishing the corpus of mutual rights and responsibilities between the provider and the user of the teaching service. The second one defines the nature and the accessibility of the learning materials provided by the teaching system, as the prime instrument to be used for the benefit of the student. The third one makes explicit the kind of assistance the students will have the right to expect to succeed in their work for acquiring a given qualification.

We have, nevertheless, to be aware that methods, techniques and tools are highly dependent on temporal and spatial contexts. Today's adequate instruments may yield their place tomorrow to innovative ones; a technology that is adopted in a developed country may be inaccessible to less favoured ones; the extension and quality of facilities created to facilitate learning depend heavily on financial (as well as human) resources available.

This is why there are not in the world two ODL systems strictly alike: their differences stem from national priorities, societal and political aspects, available resources, culture and tradition.

2. Looking at the Conventional, Classroom-Learning Paradigm

For a number of centuries, within a teaching institution, a classroom and a teacher were the only available tools for students to acquire knowledge. The teacher spoke, the students heard and took notes; from these and from sometimes-available books, students studied, in a library or at home, and did their homework; once in a while they were subject to written or oral partial examinations; at the end of the year they submitted to a final one; as a result, they were received or refused into the next study year or were awarded a final diploma or degree.

The evolution in pedagogical theories introduced new concepts and practical recommendations for the classroom practice: programmed learning, learning by objectives, active learning, student-centred learning, co-operative learning, etc. Along the years, these trend have been consistent enough, in the sense of trying to change the previous role of the teacher, just as the only significant speaker, and of the student, just as a passive listener, into a more dialogic situation where a true interaction between them could occur. Also, from the situation where students received mostly

pre-ordained, rigidly defined and highly structured sets of knowledge, into the one where opportunities of searching for and maybe creating knowledge of their own were offered to them.

In the more developed regions of the world, the generalisation of the use and ownership of personnel computers with facilities for handling multimedia and for connecting to the Internet created a major technological gap between schools and the "outside" world — with the risk of creating a feeling of coming "back to the past" when entering the school environment. This is one of the reasons why most of these countries are making a huge effort to put sufficient numbers of computers inside schools, the other reason being the need to compensate original asymmetries of socio-economic level between students, by democratising their possibilities of access to these new technologies. This is a way of trying to minimise the consequences of a possible technological exclusion within the society.

In any case, these new technologies are inducing changes in the learning processes and in the attitudes of the younger generations. Having been born (contrary to their ascendants) in a world where computers, CD-ROM's, Internet, video and computer games are trivial enough, some consequences are already visible or foreseeable:

- Their approach to a new equipment or a new software do not usually follow the "rational" approach of adults, this one consisting mainly in reading the instructions or having someone to explain the right procedures to them and trying to understand everything, first of all; then, experimenting carefully, step-by-step. Young people do rather the reverse: experimenting immediately and arriving (rather quickly) to a full knowledge of the new system by a systematic "trial and error" approach (and, through accumulated experience, by what seems to be mostly spatial-temporal intuition).
- Having access to a multitude of information available in the Net, they tend to compare whatever they have been able to learn therein, with the content of their lessons in class, these appearing duller and less interesting —if not, from their point of view, completely irrelevant or even wrong.
- The unstructured nature of most Web contents appears to be in clear conflict against the hyper-structured nature of curricular courses, thus creating attitudes of rejection against the latter.
- New, modern ideas and innovations tend to appear

- as much more appealing than the "old staff" included in conventionally oriented curricula.
- By using the communication facilities today available in computers, students are able to connect other people, from other schools or other countries, thus "getting out" of their local environment whenever the opportunity arises.

In a nutshell and caricaturising the situation, we are observing a losing battle between the two generations' attitudes: new against old; unlimited space against a closed environment; freedom against rigid discipline; random approach against structured thinking; creative exploration against fixed-objective study.

Whatever the outcome will be, it is clear that the way to minimise possible negative consequences of this evolution of the new generations' attitudes within the school includes:

- promoting a steady increase of students' autonomy in respect to the teacher;
- changing teachers' roles in terms of their becoming more like managers and mediators of information than as being the only source of knowledge, as they have been up to now;
- allowing for a greater flexibility in learning objectives and curricula;
- putting more emphasis on the development of students' capacities and skills than on the extent of their formal knowledge of many different subjects.
- developing students' capacities for managing and structuring information, for interpersonal communication and for learning by themselves.

This means that, in a certain way, the conventional, classroom-learning paradigm in schools is evolving towards a steady convergence with the distance learning one.

3. The Crisis in Universities

Universities have not changed by much along centuries (in some cases) of their existence. They were created to qualify small numbers of privileged young people in order to turn them, as adults, into an élite of decision-makers for Government, Public Administration, the world of politics, the Army, the Church, the entrepreneurial sector and a few chosen and highly-paid liberal professions.

Besides teaching, only much later scientific research become another specific task of Universities although, at the beginning, fundamental research was much more accessible, frequent (and appreciated) than applied one. Only during the current century universities become involved (if only slightly) with development projects directly relevant to the productive activity or to looking in a pragmatic way at the social and physical environment.

In organisational terms and in recent times, Departments, aggregating a number of Chairs possessing some degree of affinity, became the structuring entity within Faculties and Institutes; and Research Centres, sometimes having a transversal disciplinary coverage, became the organisational unit for developing research activities.

But nothing much else has changed within university life.

Sometime during the turn of the fist half of this century, a slight pressure began to be felt in terms of increasing the number of candidates to higher education. Governments reacted in three different ways: by creating new universities; by launching a new model of higher education institution, aimed at offering shortduration diplomas to larger numbers of students; and, when these measures turned out to be insufficient, by introducing severe restrictions to the access to universities (giving birth to the policy of *numerus clausus*).

The demand, however, continued to increase and nowadays universities are facing conflicting pressures. On the one hand, both the Government and the public opinion push strongly in the sense of universities increasing their yearly intake of students; on the other hand, the budget allocated by the State to public universities seems to stagnate and even to shrink, year after year.

In some European countries, the field was made open to the private initiative and many forprofit higher education institutions were created within a few years. Nevertheless, if the quantitative problem was thus somehow minimised, the social situation became totally unfair. The less-privileged families turned out to be the ones with most of their children being refused entrance to the State-supported official institutions, and thus being forced to pay more heavily for their education, in private institutions.

Even this whole set of solutions was not enough to solve the problem, due to the continuous growth of demand for access to higher education. It is expected

that this state of affairs will continue to develop (possibly through a general increase of compulsory education until the age of 18 that we expect to be decided in Europe within a few years), until the moment that at least one half (and possibly more) of the class of age from 18 to 25 in each country has been granted the opportunity to study at higher education level.

This means that **élite** education will turn out into true **mass** education —but we want this change to be made without any visible loss of **quality** in the outgoing qualification profiles.

We have observed that quality issues are becoming, in most developed countries, a central question in the operation of universities. Being expensive systems and a heavy financial burden either to the State or to students' families, it was found necessary that some degree of accountability was required from these institutions. Questions about the relevance of qualification profiles to the needs of today's society; of productivity, in terms of the yearly yield of new graduates, as compared to the annual intake of students; of efficiency, in what concerns the average number of years a student spends within the institution to earn a degree, compared to its nominal duration —are being asked, more and more insistently, from universities. And satisfactory answers must be provided.

The problem becomes even more complicated to cope with, due to the comparatively recent recognition of the fact that there is an absolute need for assuring lifelong education to the whole of the active population in every country; and that a substantial part of this task will fall, directly or indirectly, on the higher education system. On the one hand, for the fact that, the more specialised and advanced the knowledge (as the one supposed to be provided by universities), the more quickly will it become obsolete and require updating. On the other hand, for universities are supposed to be the best repository of innovative knowledge necessary to introduce new technologies, new methods and new tools in the productive system and this may require re-training the workforce.

It is obvious that, considering the actual capacity of higher education institutions, the use of conventional methods will not suffice, in quantitative terms, to accomplish neither mass initial education nor generalised continuing education and training.

4. The Development of Distance Education in the World

The answer to the above-mentioned problems is to use the distance education methodology whenever this is possible. In fact, ODL institutions have just been designed and created for the purpose of dealing with large numbers of students, without any visible sacrifice in the quality of qualifications offered to them.

The first approach to this *desiderata* was accomplished by the creation of specific, dedicated and integrated systems operating in the distance learning mode, and thus being called *single-mode institutions*, of which the most common example is the British Open University, founded in 1969. The massive use of quality learning materials, in written form as well as supported by radio and television, together with the existence of an efficient student support structure, were responsible for giving a high credibility to this system. During the decades of 70 and 80, many similar institutions were created all over the world.[2]

Meanwhile, a slightly different approach has been taken by a growing number of conventional (face-to-face teaching) institutions that decided to operate also in the distance learning mode, thus becoming *dual-mode institutions*. In most cases, formal programmes continued to be taught to resident students in the conventional way, while special programmes of mostly non-formal nature (like adult, continuing and community education, etc.) were offered in the distance learning mode to off-campus students.

At the onset of this trend, this was a common enough arrangement in the United States. In Europe the tendency was to offer the same kind of formal programmes both to resident and to off-campus students, but as parallel, almost independent initiatives, given the fact that they were addressed to essentially

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2. Some Web addresses of distance-teaching universities: The *Open University*, UK (http://www.open.ac.uk), *Universidad Nacional de Education a Distancia, Spain (http://www.uned.es) and Fer-nUniversität*, Germany (http://www.fernuni-hagen.de), in Europe; *UNISA, in South Africa* (http://www.unisa.ac.za), founded in 1946; *Télé-Université* (http://www.teluq.uquebec.ca/) and *Athabasca University* (http://www.athabascau.ca) in Canada; *Universidad Nacional Abierta*, Venezuela (http://www.una.edu.ve) and *Universidad Estatal a Distancia*, Costa Rica (http://www.uned.ac.cr) in South America; *Indira Gandhi Open University*, India (http:/www.ignou.edu), *Sukhothai Tammathirat Open University*, Thailand (http://www.stou.ac.th) and *University of the Air*, Japan (http://www.u-air.ac.jp/hp), in Asia. For Web addresses of other ODL institutions, see: http://www-icdl.open.ac.uk/).

different target populations. In recent times this last option became clearly more generalised at both sides of the Atlantic, as well as in other regions of the world[3]. It is obvious that initial investments needed for launching a distance learning operation are much lower for an already operating conventional institution than those needed to create *ab initio* a wholly new institution, given the fact that, in the former case, many material and human resources are already available. This explains why, in the last two decades, just a few more Open University-type institutions were created, as compared with the large number of dual-mode institutions that began operating in the same period.

Considering both modes of operation together, it is estimated that many millions of students benefit from the ODL methodology in Europe and, probably, several tens of million all over the world.

The evolution of the new Information and Communication Technologies (ICT's) and their pervasiveness at all levels of society in developed countries created new and improved conditions for he ODL operation. Producing and distributing high-quality interactive learning materials in multimedia support; making easier and less expensive person-to-person communications; making possible to use the Web for the distribution of information and scientific contents, as well as providing an almost unlimited scope and volume of information for documental research; establishing bilateral connections with sight and voice facilities between remote points —are obvious advantages brought by the ICT's to the field of distance education.

In particular, this encouraged a number of otherwise conventional institutions to design an ODL model where combined presence sessions and self-learning activities were proposed to the same population of students *for any programme*; and this we call the *mixed-mode of operation*.[4] The advantage of this model is to actually increase the capacity of existing universities, through the reduction of time per student dedicated to classroom, face-to-face activities.

From another perspective, the use of the new ICT's made easier the creation of bilateral alliances or multipoint networking between institutions having a similar status, sharing the same objectives and having the same linguistic and cultural background. This brings in an added value of sharing expenses, pooling together human resources, diversifying the offer of products and services, increasing productivity and improving the cost/benefit ratio of their initiatives.[5]

We believe that the current situation in ODL is characterised by the following realities:

- We believe that the distance learning paradigm is influencing and, in the long run, changing the more traditional methods of teaching and learning;
- More and more previously conventional institutions are coming into the field of distance education, either following the dual-mode model or to the mixed-mode one;
- Networking between ODL institutions is now recognised as a sound strategy for sharing assets and reducing expenses;
- As another consequence of networking, transnational operation in the ODL field is becoming trivial, adding one more aspect to the many ones that globalisation has introduced.

5.   Hurdles and Snags

Creating *ex nihilo* a single-mode ODL institution is a time-consuming, expensive and somewhat risky venture, demanding clear political determination from governments and a steady and systematic approach to public opinion, influencing it in the sense of recognising that this is a good strategic decision to take, in order to have a better education for all. As a consequence, many precautions are usually taken (expensive public initiatives cannot afford to fail), in terms of making sure that learning strategies and methods are reliable enough, that staff is properly trained, that planning is thorough and careful, that organisation and logistics have been competently designed. In other words, it is usual that single-mode institutions have imbedded in their conception and implementation an adequate number of quality-assurance measures.

Contrariwise, there is no such pressure of responsibility when taking the decision and actually launching an

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3.   Some well known dual-mode universities are: the set of 26 French universities under the umbrella of the *Fédération Interuniversitaire d'Education à distance, FIED*; the *Carl von Ossietsky University* at Oldenburg, Germany; the *PennState University*, in the United States; the *Southern Queensland University*, in Australia.

4.   See, for instance, Trindade, 1999, 2000.

5.   The recently created *Bayern Virtuelle Hogeschule*, uniting all universities and polytechnics in the Bavaria region in Germany and the *Universidad Virtual de Andalucia*, in Spain, following the same pattern, are current examples of regional networks of higher education institutions operating in mixed-mode.

ODL initiative within an already existing institution: not only the level of investments is much lower but also the decisions can be taken at a much lower level and implementation can take a much more relaxed form. These being positive assets in terms of saving time and avoiding administrative and bureaucratic snags, they also carry along a possible risk of underestimating difficulties, ignoring necessary precautions and only recognising much too late, when results turn out to be not as good as expected, that some serious mistakes were made in the past.[6]

We present, as examples, a number of critical issues that are easily overlooked:

a) The most common error is to assume that it is easy enough to convert a typical scientific text into html language and to put it in the Web, expecting ODL students to be able to learn properly from it. The reason why this is not usually considered as good practice is that materials designed for self-learning are actually *atypical.* They should have been conceived as very explicit and easy-to-read texts, with clear objectives, with a visible structure for ordering the issues, creating constructive associations and making explicit all reasoning necessary for the information to become knowledge and for this knowledge to become fully integrated. Texts should also include exercises, evaluations and activities designed to consolidate learning and to convey self-awareness and self-confidence to the learner.

b) One usual mistake is to underestimate the need for distance learning materials to be highly appealing to the learner. Actually, we must recognise that, in a face-to-face situation, the interpersonal relationship between students and teachers is the most important asset for creating motivation for learning. In the absence of this, in an ODL context, learning materials should be attractive enough, so as to compensate for the absence of a physical teacher.

This does not mean that all texts should adopt something like a hypermedia format, with profuse illustrations, an interesting sound track and a labyrinthine architecture, following the inspiration of computer games. An appealing document should be, first and last, an interesting enough instrument for stimulating learning, not for pure entertainment.

c) A major problem is the result of most professors with experience in conventional higher education overlooking the off-campus, sometimes far-away situation of ODL students. Most of these students will not be able to go to a university library whenever they need to read the bibliography suggested (or imposed) by the professor; and most non-academic libraries existing elsewhere will not have the scientific books and journals where the suggested texts can be found. Even more ridiculous is the not unheard-of situation of recommended books having been out of print for a long time...

It is almost acceptable to require students to buy a very limited number of reference books for a bibliographical fund they are recommended to constitute for their future professional life. However, this should not occur for every course in a given programme, the corresponding expense being not inconsiderate.

An alternative solution consist in the institution providing students, besides basic learning materials, with an anthology of complementary readings they are also expected to study. An improved one is making sure that whatever bibliography recommended by the teacher is readily available to students, in full, at the teaching institution page in the Web, at a negligible cost for the users.

The constitution of an academic electronic library is, however, a complex and costly venture, for royalties need to be paid to editors of every book and journal included therein, on the basis of the yearly estimated number of users. Hence, the access to these works cannot be open but should be reserved only to these users previously recognised by the institution.[7]

A different kind of mistake is to neglect providing students with a reliable learning support mechanism. To achieve this purpose, some or a combination of the following solutions may have been considered:

d) The creation of a network of local Study Centres where students can meet (physically) tutors or members of the teaching staff at previously established days and hours;

- A previously established schedule and precise co-ordinates for students to contact (if they so wish) tutors and teaching staff by phone;

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6. See Bates, 2000.

7. The Hong Kong Open University has recently created an electronic library for its students with considerable success (more than 300 000 hits per month).

- Addresses for asynchronous individual contacts with tutors and teachers by fax, postal or electronic mail;
- Computer conferencing for multilateral contacts between students and teaching staff.

e) Whatever the chosen solutions will be, it is important that the capacity and the logistics of the student support system will be enough to assure a prompt response to students' difficulties. It would not be acceptable that the access phone numbers would be busy most of the times or that most e-mail messages would remain unanswered for many days.

Adequate planning requires that a projection (and later, a real statistics) of the frequency of students' use of these facilities will be determinant in establishing the number of staff and the allocation of their duties in student support mechanisms.

The evaluation of students' progress and final performance is another critical item to consider in an ODL context.

First of all, let it be remembered that partial examinations are excellent tools for evaluating learning progress, both for benefit of the teaching system and for students themselves. As to the former, a credible institution needs to monitor at all times the general efficiency of the learning process and, through it, to judge on the adequacy of learning strategies, methods and materials. For the latter, partial examinations and the knowledge of the corresponding results will help students in adjusting their study hours and weekly workload, in order to comply with the expected performances. Hence, there should be no more delay than the absolutely necessary in providing students with the feedback of these evaluations (correction grid and individual marks, plus whatever comments seem to be useful).

For these reasons, partial tests, assignments and examinations are essential pedagogic tools in a distance learning context and should be considered as compulsory, even if the corresponding marks need not have more than a symbolic weight in the final classification.

The final evaluation is a more delicate issue, for most of the external value of an ODL formal programme (and of the institution offering it) depends on the credibility of its examinations. For these reasons, most of these systems take painstaking precautions to assure that exams are just and marks earned are absolutely fair. Presential examinations in a totally controlled environment are considered, nowadays, the only acceptable practice; even if this situation may evolve in the next few years, by using sophisticated procedures to assure that students have really earned, just by themselves, whatever results they may have obtained.

6.   Cultural Clashes

It is a complex process for a conventional, classroom-teaching, higher education institution, to come fully and successfully into the field of distance education. We have seen that there are many methodological and pedagogical precautions to be taken, besides organisational and logistic ones. We shall now address a deeper and more delicate question, for it is strongly ingrained within the institution life, experience and tradition: the purely cultural issues.

From the perspective of a given conventional University, it is interesting to look at the typical duties (and degrees of freedom) of a Full Professor. Having (at least in Europe) a job for life, he shares his or her duties between:

- a limited number of weekly hours of actual teaching and (hopefully) for receiving students;
- some co-ordinating work done together with the other teaching staff of the department;
- doing and co-ordinating research activities within the department or the research centre;
- supervising theses and dissertations;
- doing some light management and administrative tasks at department level;
- participating in the faculty or the university governing bodies.

This list of duties stems from the fact that modern universities are essentially decentralised systems, having the Department as a basic structure for the teaching and for the research activities, without any significant interference of any higher authorities in what concerns scientific and pedagogic issues. Above Department level, the Institute or Faculty provides a loose co-ordination of the departments in terms of the macro-development of educational policies and programmes; and may have some degree

of administrative and financial autonomy, with the corresponding administrative tasks. At University level, the same kind of duties is just developed at a higher degree of responsibility, including the negotiation of the university budget with the financing bodies. It has, on top of all this, the overall representation function on behalf of the institution.

Seen from this perspective, Professors in conventional universities are very powerful entities, almost fully autonomous in what respects the definition of scientific content of their courses and the choice of the corresponding pedagogic strategies, as well as the orientation of research activities. There are even some non-written laws concerning their relationship *inter pares*, any attempts of horizontal harmonisation or co-ordination risking to be interpreted as unduly interference violating each professor's autonomy.

Let us now try to compare this situation with the one that is most current in ODL, singlemode universities. It is obvious that, in such systems, there should exist some degree of unity in learning strategies, in the format of courses, in the shape and style of learning materials, in evaluation methods, so that these functions cannot be left to the single criterion of each Professor[8]. In a few words, scientific and pedagogic matters cannot be de-centralised; rather they need to be dealt with at a single point of decision.

The same reasoning applies to planning; to drawing short-, medium-, and long-term policies; to the design of student support mechanisms; to installing a permanent monitoring process of all aspects of the ODL operation, be they related to pedagogic efficiency and productivity, to organisation, or to logistic issues. Under these rules, authors of scientific content may be asked to modify their learning products if they do not appear to fit the pre-established specifications or seem otherwise not to be satisfactory enough; professors may be invited to look more carefully into the quality of their evaluation instruments; tutors may be suggested to intensify their contacts with students should their progress fail to reach the expected levels.

On the other hand, every course or learning unit need to be translated into the existence of appropriate learning materials (book, audio and video recording, instructional courseware, etc.) before enrolment of students can occur. If a given professor is not willing or

available for authoring these materials, someone else, even from outside the institution concerned, may be contracted to do this job —and the result of that work will become the content approved and adopted by the institution.

Given the differences between the role, the duties and the degrees of freedom of a professor in a conventional university and in a distance-teaching one, we must recognise that there is a wide cultural gap between them. This is the reason why it is easier to solve this problem in a new single-mode institution, wherein the rules of the game are established from the very beginning of the venture, than for initiating a dual-mode operation in an established conventional university, where old habitudes and privileges of faculty may clash with the requirements necessary for the proposed new ways of doing things.

7. "Virtual" Universities

For the last two or three years, we have observed a new trend in ODL operation: the onset of the so-called Virtual Universities, corresponding to an organisational model based on the extensive use of Internet to fulfil all the current tasks and functionalities involved in distance education. This means that course contents and all necessary information for students are available at given locations in the Web; that students contact teachers and tutors through their e-mail addresses; that tests and partial examinations follow the same path; that "chat groups" can be organised between students, so as to break the typical isolation they had in the more classical distance learning regime. Moreover, there is also the possibility of organising interactive, on-line sessions through video conferencing or computer conferencing.[9]

A successful example of this model of organisation can be found in a new dedicated ODL system in Europe, the Universidad Oberta de Catalunya (http://www.uoc.es). There are also a large number of formerly conventional universities that have adopted this model of operation, in dual or mixed mode, so that the new expressions "On-line Courses" and "Internet-based Learning" are becoming usual enough.

We have a slight objection to the use of these expressions, because they may be misleading. In fact, being *on-line* just characterises the distribution

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8. There are still many ways in which Professors in ODL systems can exert their creativity and make the most of their competencies and skills; but they are subject to general rules (mostly of methodological and pedagogic nature) that should not be infringed.

9. See, for instance, Bacsich, 1997; Ortner, 1999.

mode of learning materials but does not clarify the respect of the basic postulates for efficient selflearning. In other words, on-line courses, even if sound in terms of scientific content, will only be as good as the learning strategies behind them and the student support mechanism made available to students.

There is, however, no implied or expressed criticism to be associated with this kind of ventures, which in fact do not deviate from the usual definition of a distance learning system, provided all precautions we have listed in point 5. have been taken. These systems are characterised, after all, by their very intensive use of the new ICT's, with the possible exclusion of all other available learning resources like books, magnetic recordings and broadcast, as well as of the opportunity for face-to face meetings with tutors in local study centres —and this may impoverish the previously eclectic nature of learning materials in more classic ODL systems.

On the very positive side, it must be noticed that a number of very prestigious conventional universities, in different regions of the world, have adopted this model of operation[10]; and, from the available information, they are being successful in enrolling large numbers of students for these courses. We feel we have to follow the development of these ventures for a few years, in order to be ready for a fair evaluation of their performances and quality.

8. Back to Roses and Names: the *New Learning*

Taking into account the substance of this text and the arguments presented herein, we feel safe in proposing to recognise the following educational trends:

- the absolute need for mass education, as well as for continuing, lifelong education, for all individuals;
- the spreading of the use of the new ICT's in professions and in everyday life and, consequently, also in all teaching and training systems;
- the current and successful developments of ODL systems, under their various shapes and models of operation;

- the observed convergence between the classroom learning and the selflearning paradigm, even within conventional schools and institutions;
- the development of the concept of mixed-mode learning, where the two methodologies are combined within a single teaching system, giving the best benefit for students;
- the globalisation effect that transnational networking has introduced in ODL operation, making bridges between different countries, regions and cultures.

Taking all this into account, we feel justified in thinking that education (namely higher education) is slowly but steadily evolving in terms of adopting new methods, instruments and organisational models.

In what respects higher education objectives and programmes, we feel that a number of major changes is overdue, for it does not seem to be a perfect fit between the more conventional higher education qualification profiles and the foreseeable needs in today's (and tomorrow's) society. But we expect that the development of national mechanisms for the systematic evaluation of higher education institutions will contribute to accelerate the process of introducing constructive changes in these institutions and, as a consequence, in education at large.

As a final synthesis and thinking about our need to cope with the characteristics of the younger generations and with the foreseeable shape of developed societies in the years to come, we come to a new perspective in the field of education. For this reason, we come back to our initial metaphor of the **Names of the Rose**; and, in order to draw proper attention to the observed as well as the incoming changes in the field of education, we have chosen a special expression to designate this foreseeable reality. We have called it **New Learning**[11]. Without daring to introduce for this designation a proper definition, these words intend to encompass *all the innovative, nonconventional ways that people will be offered, in the near future, to access and to acquire knowledge, competencies and skills.*

In this sense, New Learning will include promoting necessary changes; making fresh approaches to educational issues; showing openness to complex

10. A few examples, among many others: the *Simon Fraser University* (http://www.sfu.ca/cde/) and the *University of British Columbia* (hrefhttp://www.ubc.cahttp://www.ubc.ca), in Canada; *Stanford On-line* (http://www.online.stanford.edu) in the U.S.; and the *University of Southern Queensland* (http://www.usqonline.com.au/) in Australia.

11. This expression was chosen as the title of a book including the contents of state-of-the-art, review articles produced by a large number of invited top-level specialists in ODL issues and presented at the European Conference "ODL Networking for Quality Learning", Lisbon, June 2000 (Trindade, Ed., 2000).

challenges; devising creative solutions to difficult problems; building bridges to overcome generation, social and cultural gaps.

Even if we do not know its features in detail, let us hope all of us can help in conceiving it and bringing it into existence.

Bibliography

Bacsich, P. (1998). *Re-engineering the campus with Web and related technology for the virtual university*. Conference paper. URL: http://www.cms.shu.ac.uk/public/events/flish97/bacsich-paper.htm (10-03-98).

Bates, A. (1997). *Technology, distance education and national development*. Proceedings of the 18th ICDE World Conference, 29-31 May 1997, Penn State University, PA.

Bates, A. W. (2000). *Managing Technological Change: Strategies for College and University Leaders.* Jossey-Bass, San Francisco.

Bidarra, J. & Mason, R. (1998). "The potential of video in open and distance education. In *Revista Ibero-Americana de Educacion a Distancia (RIED)*, December 1998, UNED, Spain.

Daniel, J. (1996). *Mega-universities and knowledge media: technology strategies for higher education*. Kogan Page, London.

Eisenstadt, M. (1995). *The knowledge media generation*. KMI, The Open University. URL: http://kmi.open.ac.uk/kmi-misc/kmi-feature.html (10-03-1998).

Harasim, L., Hiltz, S. R., Teles, L. & Turoff, M. (1995). *Learning networks: A field guide to teaching and learning online*. MIT Press, Cambridge, MA.

Holmberg, B. (1981). *Status and trends of distance education*, Kogan Page/ Nichols Publishing London/New York.

Holmberg, B. (2000). "Status and trends in distance education research", in *Proc. of the First Research Workshop*, EDEN, Prague.

Jones, D. R., Pritchard, A. L. & Trindade, A. R. (1998). "Credit transfer and internationalisation of distance education", in *Open Praxis*, vol. 2, 1998, ICDE.

Keegan, D. (ed.) (1993). *Theoretical principles of distance education*, Rutledge, London.

Mason, R. (1998). *Globalising education: trends and applications*. Routledge, London.

Ortner, G. E. (ed.) (1999). *Socio-economics of virtual universities*. Deutcher Studien Verlag, Weinheim.

Tiffin, J. & Rajasingham, L. (1995). *In search of the virtual class: education in an information society*. Routledge, London.

Trindade, A. R. (1993). *Basics of Distance Education*, EDEN, Budapest.

Trindade, A. R. (1999). "Pursuing Quality in Educational Systems", in *Proc. ICDE Conference on Distance Learning and 21st Century Education Development*, Tsinghua University, Beijing.

Trindade, A. R., Carmo, H. & Bidarra, J. (2000). "Current Developments and Best Practice in Open and Distance Learning", in *IRRODL*, n. 1, Athabasca.

Trindade, A. R. (ed.) (2000). *New Learning*, Invited articles of the Conference: ODL Networking for Quality Learning, Universidade Aberta, Lisbon.

Van de Westeringh, W. (2000). "ODL and ICT: New Opportunities for the Teaching Profession?", in *New Learning*, Universidade Aberta, Lisbon, 2000.

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