



## Risks and opportunities of virtual learning: the experience of UOC



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**Abstract:** In this article, I have tried to give answers to the question of what the risks and opportunities of virtual learning are. In this sense, the UOC's experience has been of great value to analyse several key issues such as the new ways of accessing quality education, the new ways of participation, the new values of educational processes as well as some of the structural factors on which e-learning is based, but which place its very model in jeopardy. Direct observation of some key processes as well as contact with the main actors (e.g. students, teachers and technicians) have provided valuable information about some factors to consider when analysing the social implications of virtual learning.

### 1. Introduction

In recent years, there have been frequent expressions of overt optimism —even euphoria— concerning the role that high technology will play in higher education. The use of new technologies and the expansion of the Internet, has been used —especially by private institutions— as a magical solution to many different problems of higher education such as high costs and the inefficiency of some educational programs. Information and communication technologies have been used as the panacea that will offer just-in-time education.

In contrast to such a positive viewpoint, other voices —basically coming from North America— have begun to suggest that, while undoubtedly offering new opportunities, online education also supposes new risks. The private face of virtual learning has generated much of this criticism and skepticism. Some have pointed out different risks of virtual education (Varoglu and Wachholz, 2001): the transformation of a public good into a commodity; the development of workers and consumers instead of critical citizens; the homogenization and standardization of educational contents, values and languages and, of course, the digital divide. In an extremely controversial paper, Noble (1997) states that “the high-tech transformation of higher education is being initiated and implemented from the top down” and he explains this reality (of alienation and opposition) in terms of what he calls “the commercialization of higher education” —commoditization of the research and commoditization of the educational function of the university. In the same article, Noble finds other types of risk in relation to changes in the distribution of power in the new model of virtual universities (according to him, the autonomy and independence of faculty will be undermined).

Online instruction has also been defined as cold and impersonal. Its technological structure has been defined as inappropriate for the social experience that education should always be. In recent years, online education has generated new areas of questioning and dissatisfaction for both professors and students. To mention just two examples, at Toronto's York University, Canada's third largest university, professors went on a two-month strike in 1997 demanding better contractual protection and fighting for the right to keep their courses off line. At the same time, students supported the striking faculty and expressed their anxieties about the whole online educational system. In 1998, professors protested against an online initiative at the University of Washington, arguing that “education is not reducible to the downloading of information”.

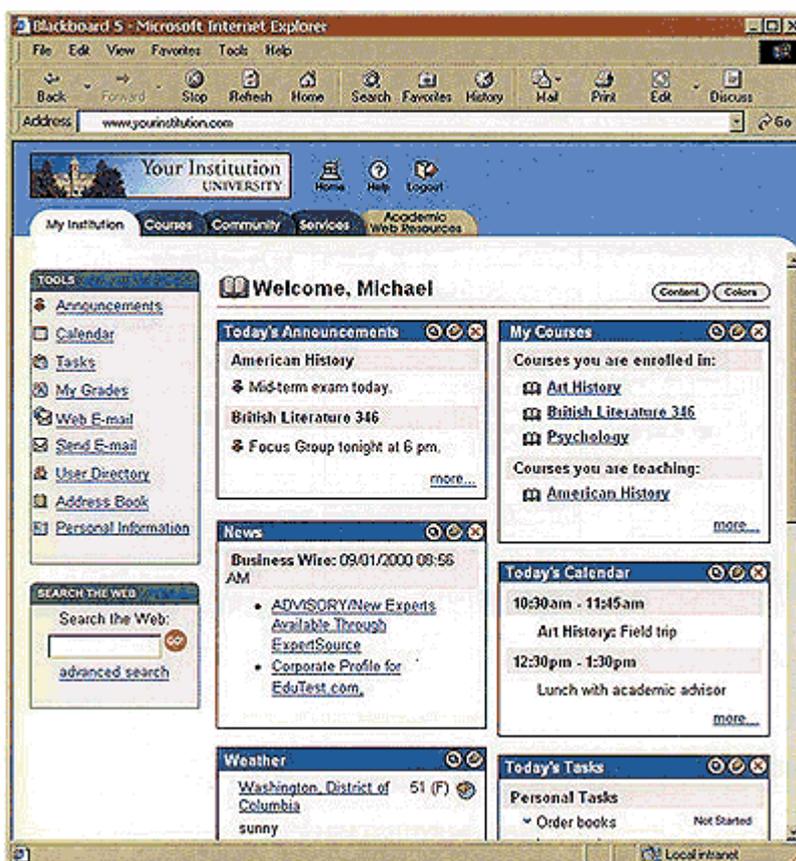


Image Of the Campus [Blackboard 5](#)

Experiences of virtual campuses and online courses have undoubtedly spread both in Europe and North America, with some initiatives in Third World countries, and the growing trend of Internet-based online learning is a reality. It is now time to analyze the general implications and social changes of virtual learning. It seems clear enough that the latter will not be the solution to all the problems and challenges of higher education. But, at the same time, our years of experience in this field may serve to dissipate and question some of those concerns and fears which clearly exist. Using case studies to examine the real and false risks of this type of learning experience seems to be a very appropriate methodology. In this paper, I look at some of the risks and opportunities of virtual learning which have emerged from the experience of the Universitat Oberta de Catalunya (UOC) (Open University of Catalonia).

## 2. Brief history

In 1993, three people started considering the idea of creating a university whose only building would be a virtual campus. Since they are key people in the history of the Open University of Catalonia, let me introduce them. The first one was chancellor of one of the most prestigious technical universities in Barcelona for many years. In the Catalan political sphere, he is an important person with a long career in the politics of education. The second person was a manager in that same campus. The third one was an expert in education systems.

The story that they often recall about the first days of the UOC starts the day when, in 1993, when the UOC was only an idea, the first two saw a building for sale in one of the most expensive areas of Barcelona. They liked it so much that they went in and asked about the price. Thus began the still short history of the first virtual university of Spain (and one of the only universities in the whole world that uses internet as the main form of personal and instructional interrelation).

But ideas and dreams were not enough. First of all, they needed permission and financial support from the public institutions, basically the Catalan autonomous government. The project for a new virtual university



coincided with the previous interest of the Catalan government in creating a system of distance education different from that offered by the Spanish distance university not only as regards the pedagogical system but also as a political strategy for offering the possibility of full degrees in Catalan language, a language with a long history in this territory that began in the Middle Ages. Although Spanish is also spoken in this region, Catalan has lived a period of expansion since the end of Franco's dictatorship with the consolidation of a democratic Spain. Having the permission of the Catalan government, the UOC began with a diploma in education designed basically for primary and high school teachers and a diploma in business. By 1995, these two departments started offering their degrees. A year later, in September 1996, MA's in Law and in Humanities began. Now, the UOC also offers an MA in Engineering, an MA in Economics, an MA in Psychology and Masters degrees in Archives and Documentation and Multimedia (this last one is offered in Spanish for the whole Spanish territory). An international PhD program on Information Society began a few months ago. There are plans for new degrees in Political Sciences and Tourism among others.



Classroom of the Humanities TFC: example of a hypertext online course

As I have just said, one of the first problems that the “inventors” of the UOC had to face was how to finance the initial expenses of the virtual university. The decision was to create a mixed system of public and private financing. In the first years, the Government of Catalonia would pay an amount of money to give public support to the virtual students of the UOC. The compromise, however, was that, little by little, the UOC would generate economic benefits to support an important part of its needs.

In those first years there was another important issue to solve: cultural resistance. Given that the UOC was the first institution to offer virtual education in Spain, the first reactions against the new system of virtual learning were also against the UOC.

Little by little, though, and as an interesting case of the domino effect, some other Catalan and Spanish universities started to think about the “need” to offer some kind of virtual courses. The virtualization of the Spanish and Catalan higher education system is probably stronger here than in other countries of the EC. And the UOC, without any doubt, has been the principal catalyst of these developments.

The UOC is one of the fastest-growing educational institutions, with 10.000 students enrolled. ). 32% of students are between 25 and 35 years old. 92% of the students work and study at the same time. 50% are married. 63% are men. 54% have a university degree.

The pedagogical model of the UOC is based on the following elements:

a) The Virtual Campus: according to the definition of the UOC, the virtual campus is the basis of all communications in the university. Students, professors and everyone finds everything they need there, without having to use any other alternative system of communication. The virtual campus has all the elements of a “real” campus: virtual classrooms, shared white board, instructor blackboard, web-conferences, all the student services (including a virtual library), places to go shopping, and places to meet other people. It even has a virtual coffee-bar!!! Email is the basic form of communication within the Campus and a photograph is included in each communication, so that people associate words with faces.



b) Course materials: the UOC students need to buy course materials developed for them by experts of different Spanish universities, according to some pedagogical principles. Little by little, paper materials are being replaced by multimedia CD-ROMs and hypertext. All of it in a basically asynchronous system.

c) Personalized support: instructors (or facilitators) and tutors. Instructors have to take care of the learning process of each of the courses a student takes. He or she has to plan a strategy for the continuous evaluation of course material, as well as solve any question that students may have. Tutors, on the other hand, guide and stay with the student throughout the years he or she studies at the UOC. They are usually called the “human face” of the university. Both instructors and tutors are part-time workers in other institutions. Their contractual situation is based on collaborative agreements and not on stable labor relationships (which generates a lack of identification with the institution in many cases).

d) Meetings: there are two meetings with all the students, instructors and tutors of the UOC every semester. They are part of the personalized support students receive, as well as a way to get to know people.

e) Professors: the UOC has its own full-time faculty members (70 people) who have to take care of the different elements of the system, from the process of the developing of course materials to the coordination of areas of knowledge. Professors also can participate in research projects.

### **Old and new problems**

New problems have to be faced in an all-virtual university system. Some of the most relevant are the amount of administration work that it generates, the question of student motivation and drop out, and problems of technology.

But not everything is different in virtual education. Some of the situations and problems of the contemporary education systems are reproduced in virtual systems, too. For instance, a real “obsession” with the level of satisfaction of students sometimes damages the quality of education, which becomes more and more something that “customers” buy and, therefore, can always return if they don’t like it.

### **3. Four-years experience**

The UOC has offered thousands of people a real possibility to have access to quality higher education. The UOC, and virtual learning in general, provides an open door to the world of learning and further education. I believe that one of the most important accomplishments of the UOC is to have introduced in many people’s minds the feeling that they need instruction. Beyond the argument of “increasing the education cake” —which seems to me too mercantilist, virtual learning instills a need for education in people who, otherwise, would have left the road of education for ever. The mere creation of that “spirit” is, in one way or another, positive for our societies.

There are different cases of “retrieved” students that I will now consider here. First, for many people, virtual learning has been a “second chance” in a society, such as the European one, where “second chances” are not easily offered. For instance, Luis, Joan, and Laura started a professional career when they were 20 years old. Their professional careers interrupted their plans of going to university. For working women, with family responsibilities, the UOC is a great window to education. Working more than 8 hours a day, and being a spouse and a mother of two girls, Laura is thankful to the UOC because it offered her the opportunity to combine a family, a job, and higher education. Thanks to the UOC, she has been able to overcome a common frustration among working mothers of having time only for “others” and not a minute for themselves.

Second, some students of the UOC saw in that new institution the way to overcome the limitations that being handicapped had meant for them. The higher education system in Spain has not been historically sensitive to the particular needs of people with physical or mental problems. For Maria, a student with multiple sclerosis, the UOC has supposed a window to other people. Her doctor affirms that the spectacular recovery of Maria cannot be understood without the UOC. Although the UOC has provided them with a framework for study, there’s still a long way to go. In addition, people who need to travel a lot, use the UOC as the only way to keep studying when they are in Afghanistan or Brazil.



A different issue here is quality. Quality is one of the main issues of virtual learning. The experience of the UOC shows that virtual learning is able to create a critical, reflexive outlook in students, i.e. to generate real quality learning. The argument that students in virtual universities miss “late-night discussions (...) and the role of the football team” (University of Illinois 1998/99) are simplifications of a much more complex reality. The success or failure of virtual learning cannot be measured with the same tools that we use to look at traditional learning. We need different tools, and I believe we have not found them, yet.



Lecturers often...

A necessary element of quality that I believe we need to emphasize is the more active role of the student in the process of learning. Knowledge, in virtual learning, is more creative, active, less absolute and authoritarian (I know everything, you know nothing), more relative, egalitarian and democratic. In virtual learning the stress is on learning, not on teaching. However, one needs to be conscious of the risks of that assertion. To undervalue the role of the virtual professor would be a mistake. At the UOC, we have learned that the strength of professor-student interactions is a key aspect in the process of learning. Different typologies of teaching have different results. Only when this kind of interaction works well, will the student learn in a qualitatively high sense. In addition to the professor-student interaction, the student-student interaction is also very important. And the professor has to be very careful in the strategy he/she chooses and organizes. Also, the human touch of attentiveness is highly valued. Not everybody is good at virtual teaching, and not everybody knows how to do it. A good professor at a traditional campus is not always a good virtual professor. Abilities are different, the role of the professor changes, and teaching how to teach in virtual contexts is a key element of quality in virtual learning. Social change always produces resistance and, within the context of the UOC, faculty members, faced with a change of paradigm, have reacted some times with resistance and conflict.

But there should be more indicators of high quality virtual learning. For instance, the ability to develop critical thinking is not only a possibility but, in fact, the virtual system can be an excellent activator of that capacity. When hypertext is used, it opens the possibilities of exploring the student capacity for conceptual interrelation, comparison, interconnection and, therefore, multidisciplinary knowledge. In addition, interactive forums and individual email provides for a high level of interaction between student and professor, which was also found in the study on student attitudes toward graduate online instruction (Westbrook 1999).



The virtual silence...

Frequently, professors with some experience of traditional education who start teaching at the UOC are surprised when they realize the high quality of essays and the email messages of their virtual students. Professors from traditional universities express frustration (together with some sense of incredulity and irony) when they see what virtual students are able to do. Often, in these situations, traditional professors take the role of extreme defenders of “their system”, with arguments such as the one I heard in a traditional class: “Oh, well, I don’t need all that because I can always touch my students”. Faculty reactions to virtual learning often hide a fear of change. The consequences of creating two confronted visions may be very dramatic for the future of virtual learning and, in general, for a higher education system that new technologies are pushing towards self-revision and change.

One of the traditional barriers that virtual learning is breaking is that of participation within the classroom. The reasons and the ways students participate in a virtual classroom are different from a traditional system. Writing participation in a virtual classroom is motivated by other reasons and one of the most important challenges for



professors is to understand those reasons. For instance, a requirement of participation in a virtual classroom is often interpreted as an attack on the freedom of participation. In a traditional classroom, students would never understand that kind of requirement in the same terms. Why, then, do students decide whether or not to participate in a class conference? A student told me that he only participates when that kind of participation supposes an interchange of points of view and experiences. And this is, according to him, very exceptional. From my own experience as a professor at the UOC, it has a lot to do with motivation, because that decision is time and energy consuming. But it also depends on the way a professor starts and follows that debate. If it is too abstract and theoretical, students would not feel comfortable. If there are outstanding interventions, other students would feel that they cannot contribute and will remain silent. One student asked for clear norms of participation, basically rules for the extension and content of each message to create a framework of equality and to reduce the level of uncertainty (“Am I doing it right or wrong?”). For him, in virtual debates, we are very careful about our intimacy. Instead of talking, on the Internet we tend to hide. Another student told me:

“Contributions in the debate are supposed to be very interesting and analytical, which stops people to participating. Before writing, I read all the messages, then I go to my editor and think about them. That implies that I have to feel like participating very much if I’m going to take all this trouble.”

Therefore, professors always need to be a sort of virtual animator, with knowledge of these new roles.

Virtual silence, however, is different from the silence that usually dominates traditional classrooms in Spain, where the passive role of students is one of the main worries of university professors. Virtual silence, like virtual voices, may come from students who, in a traditional system, would act in a very different way. A very active student in a virtual classroom can be a shy person. By contrast, a very talkative person may remain quite silent in virtual classrooms. In bilingual contexts like Catalonia, where the command of two languages (Catalan and Spanish) is not equal for everybody, written participation gives a second chance to an equal presentation of the self through writing editors. In general, non-native speakers of a language may experience a less stressful experience in virtual than in real contexts. Gender differences also seem to be reduced in virtual participation.

Thus, the level of interaction with the professor can be really high; higher than in many overcrowded law schools in Barcelona. I can agree with the statement that the process loses something in isolation, but I wouldn't agree that online education actually means isolation. In fact, in many ways it can mean a lot more interaction between student and professor.

I agree with the University of Illinois report when it says that “Students should feel they are members of a learning community and derive motivation to engage in the material at hand from the attentiveness of the instructor” (p.2). The problem is how to build that community, and it is not always easy.

There is one element in the report that causes me some concern. On different pages you find references to distance learning as a place where there is no social experience. It is true that on-campus life does not exist, but there is an on-virtual campus life for those students that want to have it. For many students, the UOC is more than a simple address on the Internet where they find online materials and email from their instructors. Students choose the level of social life and implication that they want, which would vary within the following range. At one extreme, that of little participation, you find many students who choose not to “use” any of the social possibilities that the UOC offers: they do not go to the face-to-face meetings that the UOC organizes every beginning and end of the semester (only a third of the students go to these meetings); they do not even read any of the public conferences of the Virtual Campus; they do not know who their tutor is. Here is the voice of one of these students:

“For me, life in the UOC is a desert. I don’t communicate with anybody. I think that a majority of the students don’t look for any relationship with people, they just look for a degree”

At the opposite extreme, some students try not to miss any of the meetings. For them, these are great opportunities not only to meet with their instructors and tutors, but to get together with the people they have met through the UOC. A good question to ask is how students meet each other, when are the specific moments when they get to know other people and they establish some kind of relationship. Usually, those moments are the sessions with the instructors at the meetings and also the exams. After an exam, the image of groups of students chatting in the corridors is very similar to that image of students of traditional universities. But if you look more closely, you will observe that both during the exams and the meetings, you can see lonely



individuals who do not want or do not know how to socialize with their virtual peers. Distance learning may be a very lonely experience, where it can be difficult to find a support group for sharing the worries and problems that the process of learning generates. But Ana, for instance, has found that group. Ana is a Humanities student who lives in the Balearic Islands (300 miles from Barcelona). For her, knowing some people is very important in order not to feel alone. Every time she comes to Barcelona, she tries to see all of them and they have dinner, or go to see a movie.

“The fact of meeting people face-to-face means being able to send emails, to talk about university life and other kinds of experiences, to laugh, to cry, to be upset, to have fun. The truth is that you develop a very close relationship, it's very strange. (...) I consider them good friends and we always keep in tUOCh. (...) In general the UOC represents a very rich experience, very encouraging for me. Sometimes you may think that people have become very individualists, but that's not true.”

In addition, some students participate in the virtual life much more than others. The different colloquiums of the UOC are “public places” that students use in different ways and with different goals. Although the range is also very wide, it could be described as follows: from people who only read messages to students who read and occasionally write, to those who have incorporated the colloquium into their everyday lives. According to some ongoing research on the new forms of socialization in one of these general colloquiums, the relationship with social variables is not easily established.

In addition, among students there is a backstage non-registered form of communication via individual email and telephone in order to share information about exams, courses, professors, and so on. The image of lonely individuals taking courses does not correspond to the real experience of the UOC.

At the UOC, social life occurs. Virtual universities framed in social and cultural contexts of high homogeneity, I believe, are more likely to create some kind of social life. Students sharing the UOC do also share many other traits, which make communication easier. For instance, they share a linguistic code, a set of cultural references, and they share a small territory, not bigger than Switzerland. Therefore, they don't have to face problems of intercultural communication, since they all have a similar cultural code and context. Moreover, since 60% of the UOC students live in the Barcelona Metropolitan area (an area of 4,2 million people of the 6 million people living in Catalonia), it is relatively easy for them to meet each other.

#### 4. Business oriented: risk or opportunity

The cake of virtual education is still to be eaten, and universities are starting to fight for areas of expansion and domination. A central problem of this business orientation is that it often raises a question: education or business? There are moments in which both goals are contradictory. And virtual learning may be a prisoner of that contradiction.

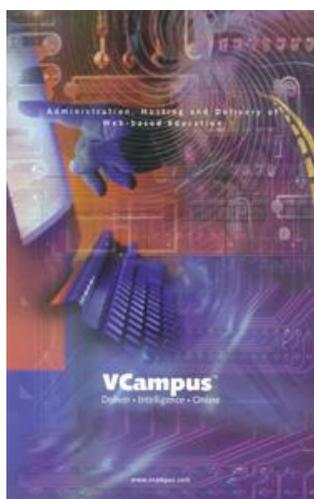


Image of the [VCampus](#)



Since 1997, the UOC has developed a new language and a new orientation. A private foundation has been set up as an umbrella for various small businesses (editorial, web design, and continuing education) that, has often led to some problems of adaptation both with faculty members and with the teaching staff. Suddenly, all of them have had to begin using a new vocabulary which, in general, has been received with skepticism and irony by a culture more used to moving in the public sector and public administration. Words such as customer, course target, cost-effective, processing management have had to be adopted. Among many students, the image of the UOC as “money-grabbing” has grown.

This new orientation of the UOC, which emphasizes economic and efficiency factors, has led the institution to sign agreements with some universities and editorials to offer shared “products” that may reach millions of potential customers, both in Spain and outside the European continent. Spain and Southern America are the “natural” areas of expansion for the UOC. But this also generates some ideological reactions. The UOC was founded with a special political purpose of being a world window for a minority culture and language. However, the Spanish language occupies an increasing central position. This issue raises the important question of the incompatibility of political and economic goals for minority cultures. Distance education seems to be one more example in the long list of difficulties of minority languages and cultures. The Spanish language market can bring millions of customers to the UOC, while Catalan could only contribute with 6 million people. For the first time, the UOC now offers a diploma in multimedia studies in Spanish, for the whole Spanish market (40 million Spaniards). Not everybody likes the idea, and some people have started to point to the above contradictions.

One of the main issues in virtual learning is efficiency. Some people see in virtual learning a great way of reducing education costs. However, the discourse of efficiency may be dangerous. Experience to date demonstrates clearly that computer-based teaching, with its limitless demands upon instructor time and its continuous requirements —equipment, upgrades, maintenance, and technical and administrative support staff— “costs more not less than traditional education” (Noble 1997). The central question of “can online delivery improve the quality of teaching?” has only one possible answer: Yes, but not without economic, technological and formative costs. A high quality virtual university, as any other high quality university, needs to invest in research and academic activities. In other words, need to invest in the creation of knowledge, and not only in its distribution. The UOC seems to begin understanding this challenge and is giving some first steps on that direction (creation of an institute of research and a PhD program, financial help to non-profit initiatives such as congresses, symposiums and web-resources). To situate the UOC among high quality virtual institutions, it is important to keep on this way.

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[Published on: June 2001]

**Recommended citation:**

ROS, Adela (2001). "Risks and opportunities of virtual learning: the experience of UOC". *Digithum*, issue 3 [article online]. DOI: <http://dx.doi.org/10.7238/d.v0i3.592>