CHAPTER 15

Universities as Content Providers

Dennis Tsichritzis

INTRODUCTION

The main mission of the University was and still is Education. Naturally, Universities are also involved in many other activities like Research, Innovation, Incubation of small companies, services, etc. Education is, however, the main goal. To achieve this goal, Universities daily produce and disseminate content using different instruments. By content we mean any form of encoding of knowledge. The instruments for encapsulating contents range from the traditional to the very modern. To name just a few, Universities produce and deliver:

- Lectures.
- Seminars.
- Lab experiences.
- Publications and Books, and.
- Educational material in electronic form.

Up to now, Universities as content-providers have been rather conservative. The following are some self-imposed restrictions in their educational activity.

- They package their content in a strict format in courses and programmes.
- They deliver their content at a fixed rate and fixed schedule.
- They mostly insist on face-to-face communication.
- They do not archive or reuse what they produce except as a script in lecture notes.
- They mainly serve their local needs.

- They do not put any great value on their content.
- Professors are not evaluated on their content production capabilities except for new knowledge.
- Universities import very little content from elsewhere.

In the last few years we have seen an increased awareness of the value of content and many prestige universities produce lectures and courses and distribute them widely via the Internet. In this volume you will find many examples of such Open Courseware. However, for many Universities content production still means shooting videos of on-going educational activities as they happen. Some Universities do it professionally, but many can only afford amateur equipment and procedures. The costs remain high and the quality is not uniform. Moreover, there is no business plan for recuperating the costs, or creating wealth for the University. The Universities produce content for the same reasons as publications or books. The main purpose is to increase their fame and to make their courses and programmes remotely accessible to a wide audience.

CONTENT-PROVIDERS

Content-providers, on the other hand, are in the midst of a revolution. There are many technologies which converge and provide the platform for this revolution. Hand-held devices like the Nokia 95 or the I-Phone provide universal access and top functionality combined with sleek user interfaces. Broadband communications, tools like Joost and Bittorent and video streaming protocols enable delivery all over the world. Services like Youtube and Flickr provide repositories. Finally, users are accustomed to content services for pictures and videos of high quality and global reach.

We will pass in review the different content sectors and sketch what is happening.

- News from print form and TV is moving in the direction of Blogs for text, Microblogs for pictures and postcards and Vlogs for video cuts.
- Television programmes are becoming available in personalized form and at chosen slots.
- Music is delivered through I-tunes and similar services.
- Encyclopedias are being increasingly replaced by dynamic Wikipedias.
- Radio is going the direction of Satellite and Software Defined Radio.
- A host of location based services are offered on the basis of Google Earth and Google Map.
- Manuals and how-to-do material are offered by Howstuffworks.com and similar services.
- Training and Company news videos are becoming affordable and widely used.

Most of these services are successful because they operate in a different way.

- There is no clear distinction between content producers and content consumers. There is a community of users that operate as producers and consumers interchangeably.
- The services have global reach and aim at volume usage.
- The services are based on innovative business models for creating value and revenue.

When all of this is happening in the Media world, the Universities' efforts look pale in comparison. In a few years the children who at an early age are accustomed to Media services (the Google generation) will reach Universities. Will the Universities be ready for them? Every student can capture in video clips everything that is being said and disseminate it instantly. Every student can compare on-line and real time the lecture of his professor with clips of the best authorities on the subject. Will our system of courses, programmes, professors, lectures, etc. be able to cope? How are we going to retain authority and capture the imagination of such students?

We will pass in review our traditional instruments for education and discuss some necessary changes.

LECTURES AND SEMINARS

The purpose of a lecture is to package and deliver knowledge. There are at least four aspects in a lecture which are supposed to make it interesting and worth attending:

- To motivate and entertain.
- To inform.
- To compare and analyse, and.
- To excite the intellect.

Most lectures, however, end up being purely informative. The unavoidable repetition and routine, coupled with the pressures of scholarly success in Research, eventually take their toll. However, exactly this aspect — "to inform" — loses its meaning when everything is widely available and in excellent quality. Students want to be motivated, excited and entertained. They need careful analysis between theories, facts, opinions, conflicting hypotheses, etc. For all this, they have to interact in groups, to participate in communities, to exchange ideas. The lecturer is no longer the sole reference or the content-provider. The lecturer is an important participant, he is a coach, an animator, but very far from the sole authority he is now. In addition, he loses the strict and undisputed monopoly of ideas and interpretations.

The concept of a large lecture hall loses also its meaning. An electronic forum can expand arbitrarily and only the exchange dynamics limit its expansion. When people need to react face to face they can do it in small rooms, in coffee shops, alcoves or sitting on a bench under a tree. In addition, students will be able to interact in mobile form and from remote locations. Social skills and leadership will be redefined over the Internet.

COURSES AND PROGRAMMES

Lectures and courses are serial. That is, they cover a subject as a series of ideas. This situation arises mainly from the media communication genre. Spoken word in an ex cathedra lecture is serial and written material in books and papers in serial. People, however, do not think serial. Neither do computer systems today organize information serially. If people organize in their minds the ideas in a semantic network and all associated material is stored and retrieved from a semantic web, then the course itself does not have to be serial. Some loose ordering is necessary in order to provide discipline of exploration and keep in step a community of learning. This is more a complex path through the web according to interest and goal and has the sole purpose to organize time and focus the discussion.

In addition, the steps can be shortened and extended depending on progress and not according to a particular schedule. The strict and inflexible schedule coming from lecture hall availability and participants' timetables is no longer relevant. Neither are exams and grades relevant. The system itself can keep track of progress and the professor as a coach can judge maturity. Some sort of level indication is perhaps necessary, but more for formal reasons. We need to establish in a concise form the level of knowledge in a subject.

If courses are loosely organized internally, so are programmes. Prerequisites of subjects still have some meaning. Knowledge of different subjects has many levels and sometimes tools from one discipline are used in another. This gives rise to a partial ordering of subjects, each organized as a discussion course. One can enter at the bottom without prerequisites and reach one or more particular tops associated with subject domains. A sufficient number of these subject domains represent a discipline. Degrees can still be specialized by insisting on a number, or core, of necessary disciplines. There is, however, the flexibility of having an unorthodox basket of disciplines which can provide a good basis for a career. If somebody wants to be chef in a restaurant he needs chemistry, agriculture, art, management, public relations and business administration. All these exist today in a University, but there is no easy way to package them or a corresponding degree. Neither can Universities dynamically restructure to serve all potential needs.

PROFESSORS AND STUDENTS

In a University today there is a strict separation of people who know (the professors) and people who are there to learn (the students). Moreover, once a person achieved a rank (as professor) he keeps it for life. In addition, a lower rank (a student) has no right or means to disseminate his knowledge. Such strict separation of producers and consumers is no longer relevant for other content-providers. Why should it remain relevant for Universities? Learning communities in the future will evolve where producers and consumers intermix and change roles. A person can obtain and share his knowledge with other persons who are his peers, or follow students. In a similar manner as in today's graduate schools a student can be more of an expert than his professors in a narrow field. In addition, by sheer inquisitive persistence he can obtain some inside knowledge on a subject which may be unknown or ignored by his peers.

In such an environment, there is still a need for guidance and authority. In every discussion forum we need persons who play a special "mentor" role. They have a plan, a guide, some "must cover" material and an enthusiasm for the subject. They monitor and channel the discussion in particular directions. They also keep track of progress, with help from the system and decide on levels of knowledge for the participants. A person can be a "mentor", and at the same time a simple participant in a different forum. The best in a discussion forum can obtain some sort of licence to be a "mentor" and organize similar subjects for others.

There is still a need for professors. A professor is a person who has achieved undisputed authority because of his knowledge, communication skills and reputation. He is some sort of "guru" or "evangelist" on a subject. He intervenes to settle difficult issues, elevates the discussion level and provides necessary depth. He should be in constant pursuit of innovative ideas, and his communications in terms of Blogs and Vlogs should be treasured.

Needless to say a University does not need too many of these "gurus" as professors. Nor is it easy for a person to achieve such status. A person can only reach the rank by international, global acclaim and retain it only for as long as he is in a position to command it. It is not a matter of progressing through ranks and eventually keeping it for life. On the contrary, there will be very few persons who can keep the pace for long and dispense the energy needed.

EDUCATIONAL MATERIAL

Books and papers are the main repositories of knowledge today. Even in electronic form organized in digital libraries, they will represent only a small portion of the incoming avalanche of knowledge's progress. They will be used

mainly as historical references and less as portraying what is currently known. The change of paradigm occurs for a very simple reason. It takes two simple actions to take a photo, point and click. Taking a video clip is slightly more complicated. Comparing that effort with just typing a paper, it is rather obvious what will happen. People will increasingly talk to a camera and organize other similar material to explain their ideas. There are already software systems (like Ricoh MP Meister) extensively used for training people or explaining subjects. In a similar way we will see specialized web services which will archive and provide these "educlips" (educational clips). The photo web services like Flickr and video services like Youtube will spawn specialized sections for educational subjects and courses.

A person will be judged by the amount of "educlip" footage that he is producing and its success — similar to the way by which papers and citations are used today to judge the amount and quality of intellectual output. A University as a site of learning communities will be judged accordingly. Copyright issues need to be sufficiently relaxed to enable free exchange and global reach. The volume of usage will be far more important than any amount of revenue obtained through strict control. As the content providers are finding "free is the new paid".

CONCLUDING REMARKS

There are two critical issues for the evolution of such a scenario of learning environment. First, will it scale? Second, will the Universities be able to play an important role?

The first question of scaling is rather easy to answer. This open, free learning environment will scale better than the traditional model. Trying to serve thousands of students according to traditional models has practically drowned the Universities. Many services from Google to Wikipedia have shown that they can scale much better than traditional methods. Peer to Peer protocols for video communication give good solutions for video streaming so there are no insurmountable technical problems. The rest is a subject of organization. Dealing with many fora at the same time is difficult, but not unrealistic, since the availability of mentors increases in parallel with the presence of the students.

The second question — the Universities' role — is much more difficult to answer. Universities can play a role in the emerging educational service sector only if they significantly change their existing structures and regulations. It is almost unrealistic to expect such a huge change of culture to occur without major changes in Governance and Management procedures. Just to separate the existing professors into "Gurus" and "Mentors" will be very difficult. Especially, since only the "Gurus" have special status and that only temporarily. Needless to say that in such an environment, tenure has no meaning.

We expect service companies to be able to position themselves in that environment very fast. Already we see companies organizing learning communities (like Sun's GLEC). By learning communities we do not mean "Corporate Universities" which is an attempt by some companies to start traditional style Universities. We mean services linking consumers and producers of knowledge and expertise. Companies like Google or Yahoo that already have the knowledge repositories are in a privileged position. All they need to do is to have some "Gurus" (easy, with the amount of money they command) and organize the learning communities. They can do it on their own or in partnership with prestige Universities for brand name and degree recognition.

Most Universities are in a much more difficult position to make their presence felt. They cannot organize learning communities on a grand scale as a service themselves. They lack the means and the expertise. They may not be in demand as partners if they do not command a well recognized brand name. They also need quite some time to restructure and reposition themselves. Sadly most of them do not realize that a global educational service sector is emerging or that it is threatening their local monopoly situation.