ORT Argentina Virtual Campus Project

Guillermo LUTZKY

ORT Argentina, Libertador 6796, Buenos Aires, Postcode, Argentina
Tel: +054 11 47896515, Fax: +054 11 47896565, Email: glutzky@ort.edu.ar

Abstract: ORT Argentina currently holds two educational complexes, two technical high schools and two post-secondary junior colleges, with over 7,000 students. ORT Argentina Virtual Campus project has been designed to expose students and teachers to new technologies, especially to collaborative tools usually known as "Web 2.0" applications and services, and also to achieve a richer and stronger interaction between students, teachers, administrators, the Internet as a learning platform and the school community. The aim is to make the processes that take place within the organization, the school and the classroom public, transparent, flat, ubiquitous and adaptable.

The experience achieved higher standards than expected: Web Presence for the organization (almost inexistent before the project) and classrooms production are stronger. Students have paid attention to the observations on spelling, writing style and design, which emphasizes the open nature of the production and its 'permanent beta'.

1. Introduction - ORT Argentina's background

ORT Argentina's academic programmes are intended to cover the educational and training needs of the community, and, by means of a vast range of tracks and careers, to ensure that our students receive first-class training according to their own personal and academic interests.

ORT Argentina has a long and proud tradition. Founded in 1936, and backed by the 125 years of World ORT's rich experience in the field of education and training, it has grown and won recognition in local, national, and international educational circles. We are fully committed to giving our students the highest possible level of education and services.

ORT Argentina currently holds two educational complexes, two technical high-schools with over 4000 students, a post-secondary junior college with 2000 students; a department that develops joint cooperation projects and training programmes with other institutions and enterprises, and around 1000 teachers and support personnel.

2. State of affairs

Information, knowledge, and culture are central to human freedom and human development. How they are produced and exchanged in our society critically affects the way we see the state of the world as it is and might be; who decides these questions; and how we, as societies, come to understand what can and ought to be done.

An educational organization increases and utilizes its intangible assets by creating, sharing, and leveraging knowledge to create economic value and enhance organizational performance. In that sense, one of our main tasks is to incorporate the concrete and practical aspects of Knowledge Management.

Following this scenario, ORT Argentina decided that its structure, its schools and teachers must be more open and flexible, not only to become a sustainable organization, but also to prepare our students to deal with this context of accelerated change and innovation. It is essential for ORT Argentina to be aware of disruptive innovations that appear with

increasing frequency into the technological and educational field, and to focus into science, creativity and culture shifts of paradigms.

3. Redefining the organization's focus

3.1 Managing knowledge

To reach a level of excellence and competitive advantage, ORT Argentina aims at redefining knowledge management. We understand culture not as something given, but as an issue in permanent change, which is produced in the social practice.

Besides, we look forward to implementing this strategy in an institution as large as ORT Argentina, which is also -by definition- a very complex organization; in which each student, teacher and family has its own requirements of personalized interaction and attention. Therefore, not only must we intervene in the design of information circulation systems, but we must also "read" the changing social structures of knowledge, and design the strategies that incorporate them to the organization.

3.2 Managing uncertainty

The concept of "emergent" seems to be essential in the near future, which should count on human resources with the necessary flexibility, motivation and interrelation to be able to face such singularities, which will become more frequent.

Management of the unexpected can be applied to almost all the organizations. Edgar Morín observed that "confronting uncertainty" was an important factor for the education of the future. In this sense, managing knowledge is managing chaos: order and systematization are just one part; the other is disorder and creativity. The notion of radical change or technological revolution in the tradition of academic practice is infrequent.

These concepts can also be applied within the classroom, especially when we use ICTs to teach and learn along with our "digital natives". In this sense, it should be pointed out that ORT aims at giving teachers and their students the freedom to develop the solutions and carry out the adequate processes to create communities of practice. Web 2.0 tools are a key instrument to deliver this collaborative and reticular project.

4. Foundation of the project

One of the main factors that determine knowledge worker productivity is that knowledge workers - and we must think of teachers as such - should be treated as an asset. It is extremely important that they are committed to working for the organization. Management has the mission of attracting and retaining the best knowledge workers.

From a strategic viewpoint, the challenge is to help our knowledge workers to contribute to value creation in our organization, and to generate an organizational climate where we do not just acknowledge the importance of this, but we do something about it.

To accomplish the institutional change, we have decided to create a knowledge network in parallel with the formal organizational pyramid, to allow ORT Argentina to reach its full potential. We used every available tool and technology, and looked out for others being developed, to carry out this collaborative and reticular project.

This initiative has been designed to achieve more interaction between students, teachers, administration, and parents, using the Internet as a learning platform, (far beyond the search for information and the use of the e-mail or IM), and to expose our community to new technologies, especially collaborative tools usually known as "Web 2.0" tools.

At the same time, it was important to sense the reaction of the community - other stakeholders, parents and students themselves - towards the responsibility and commitment required to make teaching, learning, socialization and the other processes that take place within the school and within the classroom public, transparent, flat and ubiquitous.

In a first stage, weblogs were chosen to become the technology to deliver the project. It is important to remark that in spite of the fact that weblogs originated within a school subject framework, they were quickly adopted by teachers from other courses, due to their efficiency in communication. Weblogs are reliable, accessible, easy to learn, non-intimidating and incrementally inexpensive. This experience had a great institutional impact, which is reflected on the quantity and quality of the Internet sites and weblogs created (400+ at June 2008).

We are looking for a coordinated emphasis on people, information, process, technology and support – a wide range of factors that together contribute to knowledge work productivity -, and we see a Web 2.0 contributive architecture as a scaffolding to contribute to our vision.

ORT Virtual Campus project looks forward to redesigning knowledge management at schools and into the organization itself. ICTs and Web 2.0 applications are being used as tools for collaborative work and production.

These tools will also provide a friendly, solid scaffolding to turn the school into an organization that manages knowledge. In this framework, it is important to think about the potential of these new media to create learning environments for the transfer of the skills needed to be included in the 21st century society.

Another issue to be considered is that we are living in the economy of attention and nowadays a Web Presence seems mandatory for most of the activities that are going on every day within an educational institution.

5. Goals of the Project

We want to prepare our schools, teachers and students for the Knowledge Society. The use of Web 2.0 applications and of weblogs in particular is **an** institutional strategy, transversal to the different disciplinary areas. This is oriented towards attaining the following goals:
- To promote the use of these new media among the members of the educational community, i.e. to generate a culture which includes the most experienced users and those who have just started using these tools, with the aim of building a teaching and learning community.
- To promote the construction of knowledge based on students and teachers' collaborative work. The notion of collaboration –central aspect of our project- implies recovering the value of social interaction in the production of knowledge and learning.
- To contribute to the creation of teaching and learning communities based on projects, powered by the blog network of the different areas, disciplines and courses; and to promote the participation of different members of the educational community in the development of the projects.
- To encourage the redesign of didactic strategies on the part of the teachers, and the **i**ncorporation of the audiovisual formats and the new mobile devices as teaching and learning tools, to think of how these new ways of representation can help in the understanding and building of knowledge in certain disciplines.

From a pedagogical approach, these additional guidelines were suggested to every teacher and administrator:
- Recast teachers and students as researchers and producers of knowledge. "Teaching to the future demands that we imbue students with a sense of intellectual purpose, instill in them a desire to make a difference, provide them with opportunities to reach a wider audience, furnish them with the tools to break new ground into the future society and do not shield them from innovation and innovative practices."
- Craft assignments that look both forward and backwards. "When we teach only to the future, we abandon our responsibility as the curators of our intellectual and cultural

heritage. Likewise, when we teach only to the past, we forget that our students have already booked tickets in the opposite direction".

6. Initial achievements

During the first few months of this experience, we focused on the creation of a set of blogs oriented towards different goals (see a classification into the universe… below). Now, we are facing a double challenge related to maintaining the production of contents over time and strengthening the networks of collaborative work among the different actors. For that purpose, we have incorporated a series of Web 2.0 tools, on which we will comment here.

To encourage collaborative work and introduce us in the new ways to store, organize and recover information, we have incorporated del.icio.us, a tool of social bookmarking[i], which is gradually integrating –via the most experienced users- to the universe of blogs. This application allows us to share favorites and to start creating a source of shared resources, ordered in terms of categories.

In parallel, there was a need to organize or systematize the set of blogs of the Virtual Campus. Therefore, there is an integration weblog, which aggregates RSS feeds from others Virtual Campus' weblogs that can be found at http://redblogs.ort.edu.ar.

To deepen the interconnection between blogs and to contribute to the creation of potential networks of collaborative work, we have added to most of the blogs an application called Feevy[ii]. Through Feevy we can include within each blog a link to the last posts of other related blogs -either because they are of the same subject or year, etc. The idea is to promote in this way the relationship and exchange between the different disciplines and areas to create a favorable context for the emergence of future projects and learning communities.

At this point, we would like to remark that the **t**eaching and learning communities, based on projects and enabled by these new technologies, have become a fundamental pillar in our project and guide our practice.

7. A classification into the universe of weblogs

The following classification of the blogs that constitute ORT Virtual Campus does not intend to delineate isolated and watertight compartments, but to identify the main points of intersection of the network of blogs, by using the most representative cases as a base of analysis.

7.1 Blogs of a school subject, where teachers and students publish

This type of blogs emphasizes the productions of students, who are co-authors or contributors to the blog, and the interaction among peers and with the teacher by focusing on the activities that are carried out. In the first two cases, for example, the blog was used as a tool to elaborate, develop and publish a survey, by taking advantage of the potential of the blog as a tool.

7.2 Blogs of a school subject, where only teachers publish

At these blogs teachers publish study materials, tasks or other contents in a new audiovisual format.

7.3 Collective blogs: from teachers to teachers

At these blogs teachers are encouraged to experiment and reflect on their own practice in relation to the new technologies (see, for example, this post http://cuadernodelengua.blogspot.com/2007/06/enredados.html published in the blog Cuaderno de Lengua, where a teacher suggests the metaphor of a "trip by train" to analyze

her discovery of the blogs). Besides, blogs are a space to share and exchange reading material and activities

7.4 Collective blogs: from teachers to students

These blogs are similar to those of the second category, but they are not restricted to the curricula of a school subject or to the development of classes: they include issues of general interest, different school services and the daily news of the school. The blogs of the Students' Counseling Areas have incorporated a calendar and a diary of the activities. Parents welcomed these blogs and left their comments on them. The weblog of the library, in turn, is characterized by its comments on the last books received, and recommends different articles published on newspapers:

7.5 Students' Blogs

Not only do these blogs register the last version of the students' projects and homework, which is equivalent to the coursework handed in class, but they follow up the elaboration process and, ultimately, the learning process.

7.6 Blogs of School Projects

It is also worth mentioning those projects, which deal with inherent problems of the community or the local context, which demonstrates the social and cultural nature of the construction of knowledge. The most representative example in this sense is the Oral History project, which began in 1993 with the aim of building the "Epistolary, Photographic, and Oral Archive of the migratory experiences of ORT families".

7.7 Oral History and Education[iii]

This blog along with the radio blog called "La Corneta" (i.e. "The Horn") have also incorporated new formats: geolocalization maps to tell stories at the Oral History blog[iv] and podcasts at the radio blog[v]:
La Corneta –radio blog.[vi]

7.8 Institutional Blogs

The blog of the project is included in this category: it is a space to document and reflect on the experience. In addition, we have implemented a "support" blog where we comment on the new tutorials or tools available:
- ORT Virtual Campus[vii]
- Tutorial Blog[viii]

  Other institutional blogs include:
- ORT Entrepreneurship Center[ix]
- News of ORT Argentina[x]
- School's Health Department[xi]

8. Lessons Learnt

In the first place, we would like to highlight the natural way in which students and teachers incorporated these tools to their routine. Even more, enthusiasm and commitment was perceived by the challenging projects they suggested. In general terms, the content achieved a higher standard than the one expected. Students paid attention to the observations on spelling, writing style and design, which emphasizes the open nature of the production and its 'permanent beta' or improvement. Besides, it really caught our attention the fact that there were no complaints about additional workload.

It is also interesting to register, through visit counters, different logics of the adolescents' works, hours at which they produce and publish. Besides, certain "contagion" patterns have emerged: when quality productions are published, there is a need to make contributions following the same high standards.

Weblogs are friendly channels, where teachers publish relevant information for students, correct homework and they even make those corrections 'public' for the rest of the class in the comment's section. Teachers from non-technological subjects have also made use of weblogs, especially Language teachers, who take advantage of them so that students can publish different tasks, such as tales, analysis of literary texts and research.

The institutional areas that have incorporated the project have discovered the potential of this direct channel with the educational community, where they can register the activities they carry out or can generate projects that promote a greater degree of involvement on the part of the different actors of the community. The institution has begun to open new spaces for dialogue and action with the different protagonists of the educational community through the blog. There is a clear reticular and non-pyramidal structure. Spaces for internal communication and production have been generated beyond the traditional formats.

Parents, in turn, have shown their enthusiasm and attention towards these "productive" aspects of the use of ICTs, in contrast with what they perceived as an excessive recreational use of the Internet.

Also, after one full year with the project, we can mention that:

- It is mandatory to create a space of Knowledge Development alive, flexible, active and pertaining to all, to be effective implementing a social framework.
- It is a strong marketing tool for an educational institution, to consider as a single process both action and communication.
- It is a key point to look for the innovator, the teacher on each department who has ideas and enthusiasm, to try new ways to do his job.
- It is very important not to fall into elitism, and asking only the supposedly best teachers to participate. This must be an open opportunity for everybody.
- It is crucial to consider "prosumers" to each one of the members of the community, and to each group.
- It is essential to convince people to work in networks, to create practice communities, (like the English teachers, the students who do charity work, etc).
- And to create at atmosphere which allows experimentation, innovation, and the opportunity to make adjustments.

9. Interim Results and levels of Innovation

To outline at least interim results after only one year, we can mention the jump of productivity of teachers. More activities, more study material, and essentially, more creativity is shown and used into classes and other teaching opportunities.

The project has helped to consolidate the institutional culture, has added value, capitalizing, the production and collective knowledge. Also, the project has allowed management to detect hidden talent, both of teachers and of students, who were otherwise out of sight, because of the departments or classrooms dynamics. Finally, provides scaffolding for different ways to teach, to learn, and to produce knowledge under a school environment.

Some innovations, going much further that what was suggested in the start of the project, (and created by suggestions of teachers and administrators) are:

9.1 Thematic Networks of Weblogs

There are like portals where the user can access all the blogs of a specific category.

- English Language Weblogs Network[xii]
- Spanish Language Weblogs Network[xiii]
- Jewish Ed. Weblogs Network[xiv]

9.2 Networks of Weblogs of Students Graduation Projects

All the students of ORT in his final year must develop a Graduation Project, depending on the track they have chosen. They have academic hours dedicated to the project and a tutor. The weblogs help them to log the advances and challenges that they must solve. And also, as a marketing platform, they show the level of accomplishment of ORT Argentina's Students, and work as an online CV for the students.
- Chemistry Final Projects[xv]
- Electronics Final Projects[xvi]
- ICT Final Projects[xvii]

Some statistics numbers also show the level of production, and the social impact reached by the project:
1. As recorded by Google Analytics, it is significant the growth of visitors to the weblogs, and the retention of viewers.
   May 21 - June 20, 2007: 6,655 Visits   12,270 Pageviews   66.36% New Visits
   May 21 - June 20, 2008: 93,613 Visits   150,608 Pageviews   47.36% New Visits
2. In terms of production, from May 20th to June 20th, 2008, 2060 blog entries were published by teachers (and students in classroom weblogs), plus other additional 320 by students in the Final Project weblogs
3. In terms of visibility, the project appeared, (from November 2007 to June 2008), five times into three of the main newspapers (Clarín, La Nación, La Razón) of Buenos Aires, and two more times into the most visited news site in Argentina (http://www.clarin.com).

10. Final Reflections

In the previous section, we have emphasized students' and teachers' motivation and enthusiasm towards working with these new tools, which they quickly and naturally incorporated, without greater difficulties. Weblogs - especially those where teachers and students publish - have become alternative spaces for socialization, characterized by a flat, informal style that favors communication between administrators, teachers and students. They have also connected the school environment to the student's context (family and friends). This generates a greater sense of ownership, responsibility and belonging, thus facilitating the transfer of the contents learnt between both environments and, in a nutshell, **d**elivers a better service to all the stakeholders involved.

In this sense, it seems that the main changes of the "Knowledge Society" at school affect to a great extent two axis: teacher-student-task on the one hand, and teacher–parent–administrator-educational institution on the other.

We are advancing towards a knowledge management strategy, which takes up not only the explicit but also the non-traditional, tacit knowledge that is incorporated to the routine practices. The starting point of this experience is based on these social networks of knowledge and it aims at incorporating them to the organization. What makes this project more complex, and at the same time, more valuable and fascinating is the need to permanently sense the environment, and recycle the old to develop the new.

The institution, and its management, is fully behind this project. To encourage this pioneering initiative, and in particular the adoption of online communication, ORT Argentina reviewed all of its operating procedures and structures, to ensure that its support was holistic. The cultural change is substantial, especially for a successful academic

organization. Without such change, teachers and administrators who have sought to incorporate these new tools to their teaching methods would have been left stranded, and the students would have not received an effective service delivery.

References

[1] CASTELLS, M. (1997). La era de la información: economía, sociedad y cultura. Vol 1: La sociedad red, Alianza Editorial, Madrid.

[2] MORIN, E, (1999). Los siete saberes necesarios para la educación del futuro. UNESCO

[3] BRUNNER, J.J. (2002): Internet y educación. ¿La próxima revolución? Fondo de Cultura Económica, Santiago.

[4] RHEINGOLD H.: (2004) Multitudes inteligentes. La próxima revolución social. Gedisa, Barcelona.

[5] DRUCKER, P. (1993). Post-capitalist society. Nueva York: Butterworth-Heinemann.

[6] NONAKA, I (1995). The knowledge creating company. Oxford : Oxford Press.

[7] SEELY BROWN, J. (1999). Serendip. Learning, working & playing in the Digital Age. http://serendip.brynmawr.edu/sci_edu/seelybrown/

[8] PEÑA, I.; CÓRCOLES, C.; CASADO, C. (2006). El Profesor 2.0: docencia e investigación desde la Red. *UOC Papers*. N. ° 3. http://www.uoc.edu/uocpapers/3/dt/esp/pena_corcoles_casado.pdf

[9] FUMERO, A. y ROCA, G. (2007). Web 2.0: Biblioteca Fundación Orange España

[10] COBO ROMANÍ, C. y PARDO KUKLINSKI, H. (2007). Planeta Web 2.0: FLACSO México

[11] ORTIZ, LUIS FARLEY (2007). Campus Virtual: la educación más allá del LMS. Revista de Universidad y Sociedad del Conocimiento (RUSC). Vol. 4, n.° 1. UOC. http://www.uoc.edu/rusc/4/1/dt/esp/ortiz.pdf

[12] SEELY BROWN, J. and ADLER, R.: (2008). Minds on Fire - Open Education, the Long Tail, and Learning 2.0: Educause Jan/Feb 08

---

[i] http://del.icio.us/campus_virtual

[ii] http://www.feevy.com/

[iii] http://historiaoralort.blogspot.com/

[iv] http://historiaoralort.blogspot.com/2007/07/el-espacio-urbano-otra-representacin.html

[v] http://radioeducativaort.blogspot.com/2007/07/ historia-de-la-msica.html

[vi] http://radioeducativaort.blogspot.com/

[vii] http://campusvirtualort.blogspot.com/

[viii] http://blogsoporte.ort.edu.ar/

[ix] http://ceo-ort.blogspot.com/

[x] http://novedadesort.ort.edu.ar/

[xi] http://deptomedico.blogspot.com/

[xii] http://redblogsingles.blogspot.com/

[xiii] http://redblogslengua.blogspot.com/

[xiv] http://redblogseducacionjudia.blogspot.com/

[xv] http://redblogsquimica.blogspot.com/

[xvi] http://pfelectronica2008.blogspot.com/

[xvii] http://pfinformatica2008.blogspot.com/