INTRODUCTION

The new information and communications technologies (ICTs) have become an indispensable tool for constructing networks and communities of practice, for accessing and managing knowledge, and for disseminating best practices in intercultural education. Social markers, Flickr, YouTube, Slideshare, RSS, Google, blogs, and wikis are some of the tools of the revolution of the so-called Web 2.0, which are characterized by their emphasis on the social dimension of the use of the new technologies. The proliferation of services and tools, many of them with free access and based on principles of free software, are democratizing the access to information and bringing groups of people from different points on the planet closer together. In the same way, Creative Commons licences and free software are liberating knowledge so that creative expression is not reduced to a consultation and exchange within a
group of people but can be within reach of everyone. This chapter will present a panoramic vision of the state of the issue and a reflection on the application of the new technologies to intercultural education.

The evolution of humanity has gone from the agricultural era, through the industrial era, to the “information” or “knowledge” era, where the main wealth-producing resource is knowledge or intellectual capital.

![Diagram showing the evolution of humanity from Agriculture to Technology](image)

**HANDMADE > MINDMADE**

![Diagram showing the evolution of technology](image)

Technological progress, which has accelerated its rhythm in the last two decades, has been fundamental in this emphasis on sharing information and resources. But the crucial evolution has taken place in the way the nature of the Internet has changed, from its appearance and evolution as a network initially oriented to connecting information, through a second phase focused on connecting people – “the social web”, to its present central role in connecting knowledge – “the semantic web” – and its projection in connecting intelligences – “the ubiquitous web” (Davis, 2008).

We can observe that technology and society “coevolve” at their own rhythms but oriented toward shared purposes, the so-called “Knowledge Era” in which people, companies, communities, and societies must worry about having access to knowledge, sharing it, promoting it, and recreating it (Freire, 2008).

Approaching the use of the ICTs in the context of intercultural education makes sense if we consider not only their function in disseminating contents but rather -mainly- their great potential for connecting people and for general development. The new technological revolution –referred to by many as Web 2.0– places emphasis on the ICTs as a tool for building networks and communities of practice, access, and management of knowledge, dissemination of best practices, and application of languages to collaboration among people by means of these technologies.

That is, the evolution of the use of the ICTs is democratizing the access to information and, more importantly, the creation of this information. At the
center of this process, interculturality is not only a product, but a fundamental element that determines the interactions mediated by technology. This leads us to two central reflections:

First, it is not only the experts in intercultural education who need to develop the knowledge and skills necessary to get along with agility in an interconnected world; all citizens need skills in interculturality to study, work, socialize, and reflect using the new technologies.

Second, it is important to remember that not all the inhabitants of the planet have access to technology or to the skills necessary for using it. This opens up a deep abyss of disadvantages with respect to the rest of “digitalized” society—what has been called the digital divide. Ortega (2004) reports that “the digital divide may be the most important danger threatening the egalitarian, supportive extension of the information society (...) the first decade of the generalized development of the Internet has only benefitted the citizens of the economically advanced countries, worsening the “digital bill” for poor countries and developing countries,” and reminds us that, in 2004, 19% of the inhabitants of the Earth made up 91% of Internet users. In order to deal with digital inequality, Moreno and Urrecha (2007) comment that policies and methodologies for integrating ICTs in the community “should receive special emphasis in formal, non-formal, and informal education contexts, as that is where the majority of learning processes happen” (p. 3). The authors take into account the worldwide discussion that reflects the concern about ICTs as elements of development, including the United Nations report in its Development Program (TFSTI, 2005) and the Summit Meeting on Information Society (CMSI, 2005).

APPLICATIONS FOR SHARING RESOURCES

The so-called “Web 2.0” is defined by its characteristics or philosophical and practical principles: it offers the chance to share resources, information, and knowledge and it is oriented toward the user, collaborative work, creating social networks, intercreativity and collective intelligence, the “architecture of participation,” and “intelligent multitudes.” The Web 2.0 “is more of a social revolution than a technological one, placing special emphasis on the open exchange of knowledge” (Cobo, 2007).

The importance of this new philosophy lies in the possibility that we all have of sharing our culture and best practices with many other people (1.1 billion users connected to Internet) in order to create interest and communities of practice networks on different topics in the context of interculturality. Levy (in Pardo, 2007) states that “the sum of intelligences does not depend on and is not limited by individual intelligences; on the contrary, it exalts them, it makes them bear fruit, and it opens new potentials, creating a kind of shared brain.”

We now hope to transmit the principles of the Web 2.0 philosophy by presenting some of the tools that make it possible to put its characteristic principles into practice: they are easy to use, they focus on the user, the possibility of sharing resources, they are free, online, and aimed at managing knowledge. It is important to mention that technological evolution is very dynamic, so becoming familiar with the usefulness of some of the tools, will allow us to use any other ones that have the same purpose.

The selection of tools that we will present here was made considering their application to disseminate best practices and collaboration among people by means of these technologies. The most frequently used 2.0 tools, some of which are used without the user even being aware that she is part of the 2.0 philosophy, are:

- Web mail 2.0: for example, Gmail, which, besides being a storage space, introduces the use to the concepts of tagging and categorizing, which are basic for understanding other more complex concepts such as ontologies, folksonomies, taxonomies, and web semantics.
- Social networks or social software, based on the principles of collective intelligence and participatory architecture such as Hi5, Facebook, Orkut, and Linkedin, which allow users to store, organize, and share information such as photographs, videos, etc., in addition to creating shared interest communities.

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66 http://www.gmail.com
67 http://www.hi5.com
68 http://www.facebook.com
69 http://www.myspace.com
70 http://www.orkut.com
71 http://www.linkedin.com
Mashups: hybrid web applications of available resources that allow the connection between different web applications in order to obtain the subjects of interest from each. Google ig, Yahoo Pipes, Netvibes, and Google maps are a sample of the mixture and reuse of online applications and data.

One example of the application to intercultural education of some of these tools is the educational computer program P3, which seeks to reach nearly 3,000 educational points and communities, 25,000 teachers, and more than 1,200,000 students in 16 countries of Latin America and in Spain (Moreno and Urrecha, 2007, p. 11) through the ICTs. These authors contribute the interesting reflection that “the creation of knowledge and collective construction may become comparable in efficiency and productivity to the traditional structures to which we are accustomed (see the phenomenon of the blogs as channels of communication, or Wikipedia as a source of information, and, additionally, they provide the added value of being based on principles and values that are in line with the search for sustainable development and of increasingly inclusive societies.”

But even more interesting is the way knowledge is generated among citizens outside of the context of structured, well-financed programs, often defying state and cultural guidelines or the tendencies of the majority communications media. Sometimes it seems that the less freedom of expression there is in the local context, and the harder the living conditions, the greater the energy that many citizens put into using technology’s potential for communication in order to read what others write, to share, to give their opinions, to complain, to challenge, and to plan changes. One illustrious case is the famous blog Baghdad Burning, http://riverbendblog.blogspot.com/. Let us present the case here:

- Tools for sharing resources (photographs, videos, presentations, pdfs, etc.) such as Flickr, Youtube, Slideshare, Issuu, and Google Docs & Spreadsheets, among others, that are used as an way to make knowledge explicit, to spread culture, and to contribute to knowledge society.

- **Bookmarking or social markers**, that allow the user to store links to interesting websites, to use tags to classify, categorize, share links, and form networks. Examples of this kind of tool are Del.icio.us and Bibsonomy.

- **Blogs**, or “logbooks,” one of the tools of the 2.0 philosophy that is used the most, because many of its characteristics, such as tags, categories, and subscriptions are evident and let the user share all kinds of resources.

- **Wikis**: collaborative websites, with the emblematic application Wikipedia, a free encyclopedia that, at present, contains over 7.5 million articles in 10 languages consulted by a large number of users; it induces the user to create, edit, share, and link information (the raw material of knowledge).

- **RSS (Really Simple Syndication)** allows the user to obtain up-to-date information from previously selected sites or web services by subscribing. This is very useful for filtering interesting information in the increasingly large volume of information online. Google Reader is one example of an RSS reader online.

- **Podcast catchers** such as iTunes, for grouping and sharing resources that are normally audio or video resources, easy to create, to distribute, and to reproduce, and aimed at mobile devices.

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72 http://www.flickr.com
73 http://www.youtube.com
74 http://www.slideshare.net
75 http://www.issuu.com
76 http://docs.google.com/
77 http://www.wikipedia.org
78 http://del.icio.us
79 http://www.bibsonomy.com
80 http://www.google.com/reader
81 https://www.apple.com/itunes/
82 https://www.google.com/ig
83 http://pipes.yahoo.com/pipes/
84 http://www.netvibes.com/
85 http://maps.google.es/
Baghdad Burning | Girl Blog from Iraq

is a popular blog whose author, nicknamed “Riverbend,” is an Iraqi woman who lives in es una mujer iraquí que vive en Baghdad. Baghdad Burning - Girl Blog from Iraq has become one of the most intriguing, profound sources of Iraq. In each of her entries, Riverbend shares reflection on everyday Iraq’s feelings and attitudes about the occupation, providing the historical and cultural context that corporative communications media often lack. While the media focus almost exclusively on violence and death in Iraq, Riverbend tells the story of life during the occupation. (…) Through her writing, Riverbend never claims to speak for all Iraqis, although her position is pretty typical of many Iraqis who, after years of disruption in their lives under sanctions imposed by the United Nations at the request of the United States, simply want to get on with their lives. In addition, Riverbend reveals the attitudes of her family, friends, and neighbors, who want the occupation to end.

Source: Partial translation of MediaMouse.org (2005), an independent opinion web, commenting on the book Baghdad Burning (Soueif, 2005)

In the context of education, what has happened with the weblogs is the best example that the most successful tools are not necessarily the most technologically advanced ones, but the ones that make everyday citizens’ lives easier. Today’s education use of weblogs and their potential future use are broad and fruitful: for the first time, we have the chance to break the expectations and conventionalisms and to think outside of traditional class limits, to start to perceive learning and personal development as part of a whole, in a homeostatic process that is intimately interrelated with a changing, complex, social and cultural context (Downes, 2004).

This is a rapidly changing reality, as today the discussion is increasingly focused on the pedagogical potential of mashups and contact networks, closely related to the concept of “communities of practice,” groups of people who learn together by mutual agreement and collaborate directly (Ortega, 2004). The basic assumptions upon which these communities of practice are related, according to Peña (2001), are (quoted in Ortega, 2004, p. 32):

**Basic Assumptions**

- The conception of learning as a social phenomenon
- Knowledge should be integrated into the life of the communities that share values, beliefs, languages, and ways of doing things
- Knowledge cannot be separated from practice
- The circumstances in which we find ourselves in real life and which have had consequences, both for ourselves and for our community, create the most powerful learning contexts
- Authority – influence over the members – originates in the skill to contribute and to create the potential for learning based on trust and esteem

**Characteristics**

- They have a common initiative to learn, that is continuously reviewed by their members
- They work through the mutual agreement and direct collaboration of the members
- They are not defined by an organizational mandate but, rather, by joint work
- They experience a continuous flux of members
- They have a learning history created throughout time and a shared repertory of communal resources
- They are responsible for themselves, no one really controls them

With the desire to make the most of the advantages that the new technologies provide today, some suggestions have been presented about the facilities that they give for access to knowledge without restrictions. The very method of distance education is considered to be a viable and saving alternative in different contexts and circumstances, making education much more acceptable to those who would otherwise not have access to it. The changing technologies have had a lot to do with progress in this method of education. Today, we are at a new crossroads which, by freeing the contents on the network, looks extremely promising for the future of education in general and especially for distance education which makes physical and mental frontiers disappear.

One example of this access to knowledge is having at hand all the good textbooks and other materials to consult responsibly, with the reliability of well-known authors and publishers. This is applicable both to the habitual reader who toils to acquire knowledge on his own, but even more so to formal education, which needs to have trustworthy, up-to-date materials available. Hav-
ing a diversity of specialized materials available to everyone will doubtless change the history of education.

However, if the formative materials available to the public in general on the network has increased considerably in recent years, at the same time, serious worries have arisen regarding authors’ rights and other concerns. In this context, there have been attempts to respond to these concerns with some types of licenses in consonance with the technological media and which have allowed a response to these issues.

The traditional concept of Copyright (all rights reserved) can be compared to the concept of Copyleft, which, in contrast, means “authorize,” “offer,” or “lend.” We agree with Álvarez Navarrete (Álvarez Navarrete, 2005) that, behind these two concepts are confronting positions regarding culture, information, and knowledge, oscillating between economic value and social value in general. This same author speaks of “free software,” a term coined by Richard Stallman, as the first attempt, with respect to protected programs, to allow free copying, modification, and sharing with others of programs, even improving them (the only thing that is not allowed is to appropriate the software and prohibit its free circulation). Based on these principles, the license called “General Public License” (GNU).

In reality, it is an issue of developing legal spheres that allow cooperation and the use of knowledge by an infinity of actors or users; so we are also seeing other kinds of licenses that substitute the concept of “All rights reserved” of the Copyright, with “Some rights reserved” or “No rights reserved,” where the author can decide which rights to reserve, or the freedom she will allow for the use of her work.

In other kinds of licenses, we can speak of “Free Documentation License” (GFDL) specifically for software manuals and documentation. The “Free Content License” (LCL) covers the right to reuse photographs, graphics, images, texts, icons, links, and other audiovisual or sound contents, as well as their graphic design and source codes. The “Free Art License” (LAL) promotes and protects the artistic practices of musicals, videos, films, literature, websites, etc. In several of these licenses, the basic philosophy is that creation works by osmosis, mixture, contagion, rewriting, appropriations, and transformation, spheres that are contrary to the copyright. Similarly, there are other license concepts that seek to defend the authors’ economic and moral rights without intermediaries, taking advantage of the technologies.

Because of the subject we are dealing with, we are going to take a moment to look at the case of the Creative Commons licenses as a legal alternative that facilitates the distribution and use of contents on the web. The Creative Commons licenses are one solution to the problems caused by the restrictions of other types of licenses and we even believe that they are contributing to spreading knowledge in an organized way that protects the rights of those who use this kind of license. In this way, with the Creative Commons licenses, contents are being liberating so that creative expression is not reduced to consultation or exchange among a group of people but can be within everyone’s reach. We believe that this is one of the kinds of license that has been promoted in recent years that is being used the most in educational contexts.

The Creative Commons licenses (CC) (which literally means “creative common goods”) define the authorizations that the author of a work gives, or who has rights to it, so that it can be used by others as long as they respect the rights or conditions established (Lanzamiento Licencias, 2008). Creative Commons was created in 2001 as a non-profit, non-governmental organization that wanted to reduce the legal barriers to creativity by applying a series of digitally available licenses. The founder of this organization is a professor of Law at Stanford University named Lawrence Lessing, jointly with a group of specialists in cyberlaw.

The Creative Commons International project is appendix to the larger Creative Commons project. Its objective is to translate the Creative Commons licenses into different languages, as well as to adapt them to the different legislations and systems of authors’ rights the world over. In this way, CC licenses have been established in different countries; even if authors’ rights is one of the most standardized legal spheres on the international level, there are still differences between the systems and the regulations, so that the idea is to maintain a common license model and adjust it to the legislation of each country, using the terminology itself to facilitate comprehension of the license. At any rate, the user is free to choose the jurisdiction of her license.

The different Creative Commons licenses and their possible combinations are based on the following properties:

- Attribution BY: Requires citing the sources of these contents. The author should appear in the credits.

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86 For more information, see http://es.wikipedia.org/wiki/Creative_Commons
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- Non Commercial NC: Requires that the use of the contents not report any financial gain to the person who uses this license.
- No Derivative Works ND: Requires this work to be distributed with no alterations.
- Share Alike SA: Requires all derived works to be distributed under the same license as the original work.

Thus, the different licenses can combine these characteristics, choosing among the following combinations: Attribution – Share Alike (BY - SA), Attribution – No Derivative Works (BY – ND), Attribution – Non Commercial (BY – NC), Attribution – Non Commercial – Share Alike (BY - NC – SA), or Attribution – Non Commercial – No Derivative Works (BY – NC – ND).

One of the conditions of this license is that the licensor grants the licensee a worldwide license, with no royalties. On the other hand, Creative Commons is not a concerned party and presents no guarantees with respect to the work, that is, it is not responsible either to the licensee or to third parties for any harm that be caused.

On the other hand, we could say that CC is an intermediate point between the public domain, where it is no longer possible to protect patrimonial rights, and the phrase “All rights reserved” that we read in many texts, which gets a bit complicated in the digital, cyberspace era. CC does not impose a total restriction and, simultaneously, protects the rights of those concerned, because it frees these rights in the range of the six possibilities that we have indicated.

There is no doubt that, among the multiple advantages of CC, there is the feeling of freedom in the use of contents, the promotion of culture that derives from this, and the fields of collaboration that open up for educational innovation. Creative Commons can be a big contribution to the development of Open Educational Resources and a great instrument for collaborating and for creating new knowledge and new teaching resources. The sphere of participatory development between teachers and students, or any other actors, are strengthened by an unimaginable pedagogical construction, if we manage to incorporate and share our best practices.

Together with this type of license, the subject of repositories for learning objects is also promoted: open courses, open access, and, in short, the initiatives that can arise to share, use, and reuse contents without restrictions, or with very few restriction, and, at the same time, ensure respect for the conditions that the authors have established.

There will doubtless be intense discussion about the path to using resources well, a discussion that is necessary for gaining access to and distributing knowledge, but an interesting path has already been travelled that makes us think about the best option for all the actors and that has a lot to do with using the Web 2.0 tools that strengthen a culture of social, collaborative work, the common good, and the universal right to knowledge and education.

REFLECTIONS AND CONCLUSIONS

We coincide with Moreno and Urrecha (2007, p. 4) in considering the “ICTs to be tools that can be applied to all the spheres of cooperation for development (starting with projects to create sensitivity), that can provide us with support in building a multicultural society that will extend the opportunities for development and global justice.” Because of this, we propose two main objectives for priority in our work (in the context of the “Entreculturas” program): (1) to prevent the majority from being left out of technological transformations, especially in the sphere of education, continuing to consolidate and deepen injustice, and (2) to use the ICTs to strengthen paths of participation, collaboration, and the mobilization of the citizens.

However, a cautionary note is necessary: it is important not to remove the use of ICTs from context, “putting the cart before the horse,” in colloquial terms. As Moreno and Urrecha (2007, p. 3) remind us, the ICTs “alone do not solve the problems of exclusion and injustice that occur in local and global contexts: integrating technology requires applying policies for implantation and integration, and this is especially evident in the sphere of education.” The technological change can only be understood in the context of the social structure in which it takes place, because society acts as the decisive engine not only of innovation but of the dissemination and generalization of technology. Thus, Adell placed a positive counterpoint, over a decade ago, in the absolutism of the technocrats: “other benefits can be obtained from all of these developments, in the same way that a decentralized computer network, created to hold up to a nuclear attack, is very resistant to governments’ attempts at censure and ideological control when it is put into the hands of the citizens” (Adell, 1997).
On the other hand, there is still a lot to learn in order to reach the full potential of the ICTs. For example, O’Dowd (2003) reminds us that, even though we normally assume that intercultural learning is an automatic benefit of interaction among people from different countries, there is very little research that actually proves this to be so.

In this state of things, it is necessary to be very aware of the need to help citizens in general, an students in particular, to develop the necessary cognitive skills for selecting and processing information in a useful, critical way, without allowing them to fall into “attention deficit.” It makes no sense to defend the idea that the application of sociotechnologies to collaborative publication will necessarily produce a better learning environment; rather, these must be part of a pedagogical change focusing on dialogue and participation. For example, Piscitelly (2002) admitted that, in the use of weblogs in education, the aspect of the production and publication (filtering information, posting data and interpretations, complementing material, putting questions online, etc.) has been more successful than the aspect of reception, and that nothing has yet been invented regarding weblogs as a mechanism for creating publics. As always, as Adell (1997) reminded us, the human factor is what is decisive in technological spheres.

To conclude, technology is not an end in itself, but only a means to achieve an end (to generate knowledge and to construct a global citizenry), and any project that attempts to foster an inclusive information society should include the particular context where it will take place and be proposed by the people and for the people.

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Racism is a very complex, subtle phenomenon. So much so, that sometimes it makes you think it has nothing to do with you. And suddenly, one day, while you are having a nice, quiet cup of coffee, a thought assaults your mind: did the demons really forget about me, or was it just an illusion?... Being a foreigner in a polarized country, in a delicate political situation, where everyone trusts you, may mean that they are stereotyping you: a foreign person, who has nothing to do with this situation, who does not understand anything, who is making a common cause with us, who is a reporter, etc. And it is not that this pigeonholing made me an explicit victim of racism, but the subtlety of the mechanism suddenly hit me. What the demons do not know is that, this time, I had an advantage and this assimilation into the abstract group of "foreigners" was very useful to me. Who says that stereotypes are all negative?

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87 At present, I am in Bolivia doing fieldwork for the research for my Doctoral Thesis.