

# **DISTANCE EDUCATION AND NEW TECHNOLOGIES: WEB RADIO AND NETWORK EDUCATION**

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## **ABSTRACT**

*The present article seeks to evaluate the effects caused by new technologies in distance and semi in personae education models in the Santa Catarina Federal University (UFSC) Araranguá campus, through the performance analysis of its Multimedia Laboratory, which goal is to encourage actions in order to create and apply means and academic support to diminish the distance between the student and knowledge. Moreover, it will evaluate also, the web radio tool and its utilization in distance education, qualifying it as an important piece of teaching-learning processes, since the digital era has transformed human interaction, perceived as the biggest revolution in production means along human species evolution, more naturally than the prior changes.*

**Key Words: Distance Education; web radio; new technologies**

## 1- The dawn of a New Era

The resources of ICT's, Information and Communication Technologies, are present in citizen's lives, fact that can't be further ignored. This reality shows that the transition to an information global society, allied to the continuous increase of computer networks and to Internet's use explosion, makes any information inserted in network immediately available to an expansion universe, evolution that Castells <sup>[7]</sup> predicted affirming that "reality, as it is experienced, has always been virtual, because it has always been perceived through forming symbols of practice with some aspects escaping the strict semantic definition".

It is important to evaluate that the main challenge lies on information's selection and processing to compose the current scene. The new global order incorporates the globalization phenomenon defined, by Giddens <sup>[10]</sup>, as an intensification of social relationships in worldwide scale, where "local transformation is such a part of globalization as a lateral extension of social connections through time and space". It must be considered that, with the new technologies advent, global information flow occurs almost instantaneously, in which the cybernetic environment promotes human creativity development, aside from ICT's, whose digital medias can be observed as more and more interactive, leveraging great advances on daily life.

The discussion on the social use of new technologies comes from the term technology that is, according to Castells <sup>[7]</sup>, "a relationship established between labor and matter in work process, being the great transforming agent and main factor responsible for new language creation. For Lévy <sup>[13]</sup>, this interactivity is not a technical concept absolutely, but a conversation, as wide and free as possible, between the subjects.

Network society, a phenomenon widely studied by Manuel Castells <sup>[6]</sup> in his trilogy *The Era of Information*, moves towards in this millennium forged on three independent processes, information technology revolution, capitalism economical crisis and statism and its consequent restructuring and cultural social movements peak, such as liberalism, human rights, feminism and environmentalism. The interactions of these processes make a new social structure, "the network society: a new economy, the informational/global economy and a new culture, real virtuality culture".

Therefore, assuming that society is constituted ever more in network<sup>[6]</sup>, evaluating technological revolution process, it is possible to observe that we are entering the information era, where knowledge will be an asset far more important than production means<sup>[22]</sup>.

In this context, internet configures an important distance education broadcaster, in virtue of its tools diversity, low cost and popularity, factor that, according to Bittencourt <sup>[4]</sup>, confers it advantages in breaking geographical limits of space and time besides from immediate information sharing.

### **1.1 - Distance Education, indispensable for new times**

Starting from the first news on Distance Education that is known, the add for correspondence classes ministered by Caleb Philips, published in March 20<sup>th</sup> of 1728, in Boston Gazette, United States of America <sup>[16]</sup>, to its explosion caused by the technological breakthrough seen in the last decades, such conditions allowed a new impulse favoring the emergence and democratization to education access - there registered the importance of Universities' actuation after their adhesion to the educational process in question.

Since information society is becoming a knowledge society, it needs higher education available to any person, aware that teaching hierarchy for the future will be computerized <sup>[23]</sup>.

### **1.2 – Distance Education and the new era**

The reality of distance education, considering the interval between 2004 and 2006, when the number of accredited institutions jumped from 166 to 2255, a 36% growth, and the number of students suffering an increase of 150%, jumping from 309.957 to 778.458 <sup>[1]</sup>, that allows to confirm its vertiginous growth, whose advance can be explained, in part, by the not less expressive increase on the number of computers in the Country. According to data from Getúlio Vargas Foundation <sup>[8]</sup> in 1988 there were a million computers, number that, in 2012 should reach 98 million – a computer for every two Brazilian citizens.

Although the fact does not mean an even access to computers to all Brazilians, it shows an exponential network increase. Data from Brazil Open

University affirm that, in 2007, 291 centers of actual support of education were approved and installed in different cities, in 2008, another 271 and, in 2009, 193. The institution goal is to achieve in 2013, a leap from the current 750 to 1000 centers, reaching the support of approximately 800.000 students <sup>[24]</sup>.

An element that should be incorporated to form the framework for expansion of distance education courses is the growth seen over the Internet in the last decade, since school seems to be required to speak the student's language. By incorporating the concept of "network education" <sup>[11]</sup>, with the emergence of virtual communities <sup>[9]</sup> that extend the dimension of social and organizational networks <sup>[6]</sup>, and the creation of numerous tools and social media networks and the expansion of Web 2.0, distance education extends the revolutionary potential of using new technologies in education <sup>[14]</sup>.

Within this perspective is important to assess the experiments conducted with the *SLoodle*, which attempts to unite the experiences of Second Life with the possibilities of open source virtual learning environment Moodle <sup>[14]</sup>. The development of open tools, collaborative and networking (wikis), using communicational languages of social networks, especially in growth, and new technologies of virtual reality and digital television and video will take us to the creation of experiences in innovative learning environments based in the concept of networking education, i.e., a distance education that is much more intimate and interactive. According to Rüdiger <sup>[20]</sup>, in short time not only their own world is being created, but also a thriving field of intellectual reflection that, for the author, cyberculture is in a stage in which expertise, due to computers transformation, converts itself into platform or phenomenon for democratic habits.

According to Gomes <sup>[11]</sup>, an education proposal that makes use of the digital world is discussed and used as it is today, a constituent part of the social process of knowledge, action solidified as its supporters have in mind multiple educational possibilities available, given the cumulative provision of technological tools, allowing uniformity in the content stream passed to the people involved knowing, according to the same author, that education in its digital format must be experienced as a concrete practice of liberation and construction of history. In this context, is being built the Knowledge and Media Laboratory.

## 2- The Knowledge and Media Laboratory

The Knowledge and Media Lab (*LabMídia*), located in Araranguá Campus of Santa Catarina Federal University, structured in the second half of 2010, came to underpin the development actions of the campus media production aiming to improve academic activities through the use and application of distance education tools, supporting the improvement of teaching resources for distance education disciplines present in undergraduate courses curriculum. Its work began in the Web Radio UFSC - Araranguá project, element of social and digital inclusion, based on the fact that radio is considered, given its reality, the communication vehicle with a wider scope for knowledge dissemination.

A more comprehensive context defined the actions of the Laboratory from the base lines dictated by the project *Human Resources for Distance Education tools in Araranguá Campus Knowledge and Media Laboratory*, with the goal of training, supported by the allocation of scholarship holders from the Campus, students able to use digital media equipment and tools. Teachers participating in this project are responsible for distance learning disciplines in ICT - Information and Communication Technologies, Energy Engineering, Computer Engineering and Physical Therapy campus courses.

The effort leveraged the creation of a Research Group in Media and Knowledge approved by CNPq, supporting and subsidizing the improvement of pedagogical resources for the campus distance education disciplines, already present in the curriculum of four courses, in line with UFSC's distance education policy.

Scholarships assist in the construction and promotion of classes with features like video classes, interviews, virtual objects production for learning and promoting the AVA that, according to Pereira <sup>[17]</sup>, are "media that use cyberspace to spread contents and allow interaction between the actors in the educational process". In addition, discloses parts of communication, education and institutional marketing of UFSC, Araranguá and surroundings, allowing the University interaction with community besides inserting the campus in the project "*UFSC paperless*".

Currently, the laboratory adds and supports a number of projects, some related to culture and technology, among them: the project *Art and culture in technological twist: identification and dissemination of the anonymous artist in Amesc and Amrec region*; *Cine web cafe: art and culture as a dialogue between science and ethics*; *Digital creativity for cultural inclusion, web radio program: "Cultural Chat"*; *Digital Totem Project*; *Video documentary: Boi-de-mamão and Web radio Arapontoufsc Project*, this one structured from the fact that the use of radio in distance education programs, already constitutes an action referring to the distance education history in Brazil, where the approximation of this interactive tool seeks to define a new pedagogy style supported by a communicational mode.

### 3- The advent of digital radio

According to Bianco <sup>[3]</sup>, the most radical transformation since the transistor and the modulated frequency invention is digital radio, officially created on March 30, 2010, which provides a transmission free of atmospheric interference. Its major advantage is to transmit simultaneously, data information and images for radio receivers with LCD screen.

Given the democratization form of education access provided by new technologies, *educommunication*<sup>1</sup>, one can foresee the production of content that links the relation between radio, internet and education, because even when radio was just a curiosity, the idea of using it for "*the culture of those who live in our land, for the progress of Brazil*"<sup>[19]</sup> already existed in the educator's mind.

Vehicles of mass communication have changed with the information technology and cyberculture development, and to Lévy <sup>[12]</sup>, "*the interconnection and real-time dynamic online memory make possible for the communication partners, to share the same context, the same immense living hypertext*". The shift to digital media and the availability of content on the Internet were important for this format emergence, characterized by the junction between broadcasting and Internet, creating web radio.

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<sup>1</sup> Educommunication, term arisen from the fusion of communication and education, allows that the relationship between communication and citizenship goes beyond the issue of freedom of expression, through the democratization of universal right to communication <sup>[21]</sup>.

### 3.1 – Web Radio, an important educational tool

According to Brecht <sup>[5]</sup>, the radio would be the most fabulous means of communication imaginable in public life, a fantastic piping system and that, if beyond broadcasting could receive, would constitute a valuable interchange tool. The fact that, from the expectation around what the web radio could promote, considering changes in traditional education allied to distance, one must consider that among all communication means and new technological resources, it is still the means of mass communication present in most homes, even where electricity is absent, recovering and upgrading its primary role with an audience that craves their educational needs met. Its most positive aspect, the guarantee of autonomy in activities realization, adds also the ability to hear them concurrently with other tasks.

Conscious of this reality, LabMídia evaluates the use of web radio as a means of broadcasting information and culture, bringing pleasure and integration among academics as well as a new channel for promoting social, cultural, scientific and academic activities developed by the University and Araranguá valley community. The project Arapontoufsc, the Campus web radio, configures an attempt to make a free and dialogical<sup>2</sup> communication.

Since its installation, initiated by the structure and assembly, Arapontoufsc deepened its base providing the creation and layout of the official blog, logo, filming, editing and finalization of institutional videos - available on Youtube - creating, recording, editing and assembling vignettes and the elaboration of an agenda focusing on internal and local community. Thus, integrated to LabMídia, serves to support both awareness and dissemination of learning resources for distance education, UFSC and Campus news, culture and entertainment to the external and internal public.

The Arapontoufsc web radio, with its programs, videos and tutorials moves the main axis of the Knowledge and Media Laboratory, promoting actions toward

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<sup>2</sup> Term, according to Morin [15], in which two logics, two principles are united without losing their duality in the unit, and non-hierarchical, allowing communities to make use of low cost technologies for their environment social reality transformation. Still relevant, the same author mentions that science progressed because there is an ongoing complex dialogue, complementary and antagonistic, and the fact that the dialogue involves the idea that antagonisms can be stimulating and regulators.

communication democratization, considering a schedule based on projects that allow the integration of the local community as a way of unifying discourses.

#### **4- Concluding Remarks**

The use of ICT's is a challenge because we move into these new languages of communication, but without being stifled and annulled<sup>[18]</sup> by them, assuming that one of the education concerns is information broadcasting, arranging it so that it occurs in a clear and objective way, offered by fast changes in ICT's, especially those related to computers, and therefore influence the teaching-learning process being impossible to ignore its progresses and advancement. In this sense, the Laboratory plays its role by following the path opened by internet, with the available resources and tools, to allow participants to promote interaction, collaboration and support of the teaching-learning process, the main reason for the presence of the Campus.

The performance of LabMídia reflects in actions whose focus is distance education considering the continuous need of technological gathering. This action in the innovation field, available in the disciplines covered, generates new challenges for the student through new teaching and learning technologies.

Furthermore, the implementation of the ongoing projects by LabMídia can be considered encouraging by allowing them to glimpse a greater interaction between academic and local communities, promoting the consolidation structural basis supported by UFSC regarding to the campus installation in the region.

Thus, it remains the diagnose of global community, where millions of people are connected to the Internet, fact that proves that McLuhan, the prophet of globalization, was correct in asserting that advances in telecommunications and information technology would transform the world into a "global village", globalization that, according to Bauman<sup>[2]</sup>, is " the hopeless fate of the world, an irreversible process, which affects us all to the same extent and in the same way."

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