THE TECHNOLOGICAL CONVERGENCE OF THE MASS MEDIA IN SPAIN AND PORTUGAL: THE CASE STUDY OF UNIVERSITIES RADIO

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ABSTRACT: A new social conscience is created, which will be used by an net society, at local and global levels, crossing both communication contexts, constituting a collaborative e interactive global network. In other sense, the geographical boundaries are diluted, the world today is interconnected by the simultaneity of the new information and communication technologies. Unlike conventional radio, Internet radio immediately sparked the interest of the broadcasting companies, once it did not impose limits on the listener's geographical range, nor on the exclusive audio format programming. These radios have not delayed in employing the technological resources of web radio, fact that can be sustained by the quantitative growth of online platforms, through which people can have access to the ordinary programming in real time by means of a great variety of devices connected to the Internet. This investigation considered it important to analyze the educational potentialities of web radios in the Spanish and Portuguese academic universe. For that purpose, given the characteristics of the study, the research methodology used was of qualitative and empirical-descriptive, from january 2018 to january 2019.

KEYWORDS: web radio; high education; interactivity; collaboration; online education.

Índice

Introduction

IN the late 90's and early 2000's, a new socio cultural movement, originated by young professionals in big American cities and universities, reached a global dimension, and with no agency to limit that process, the different computer networks developed in the 70's joined together, while the number of people and computers connected to the network grew very fast, says Vanassi in (Teixeira, 2014).

Thirty years of continuous growth of society and collective intelligence virtualization led to the Millennial Generation (or Generation Y), going from the operating system Enquire development, by Timothy John Berners-Lee, and following Ted Nelson's Xanadu and Hypertetx principles to culminate in the World Wide Web, in 1989. Progressively, the Web evolved from a static guideline (1.0) to a collaborative one (2.0), and after that to a guideline of contents portability, information connectivity and programming languages integration (3.0). Experts already talk about an artificial intelligence Web (4.0), as foreseen by Anandarajan and Anandarajan in Teixeira (Teixeira, 2012a). At the same time, numerous interactive resources are developed for the Internet and media digitalization.

In other sense, Bauerlein (Bauerlein, 2008) goes further in his "The dumbest generation: How the digital age stupefies young Americans and jeopardizes our future", by accusing the digital era of stupefying and idiotizing young people through anomy, isolation, addiction and cognitive overload. As well as in Portugal, in Spain also co-exists a reasonable number of academic broadcasters which are primarily characterized by a great range of varied programming, including numerous fields in which it is possible to find all kinds of genres and issues. In addition, university radios are broadcasters that foster radio-creation becoming themselves real alternatives to the general radio dominant content, as they offer a vast collection of Information, Culture and Entertainment. They are also a clear alternative to those contents which have leading role in the specialized offers field. We will proceed with the presentation of the results in accordance with the objectives of this research, now analyzing the web radios in the Spanish and Portuguese academic universe.

Similarly, Don Tapscott and Anthony D. Williams in (Teixeira, 2014) say that the global interaction, based on the sharing of information and knowledge, and the advances of the technologies of information and communication, modified the concept of economy and society for ever: The consumers become producers and the producers become consumers of contents, goods and services, in a new planetary economic model, without restrictions or barriers, induced by a continuous process of massive collaboration. Is the open source transmission, the free divulgation, the decentralized and multi-polarized information, the fortuitous interaction, the purposeful communication, the shared, distributed creation and co-creation that find their maximum expression on the virtual environment.

In fact, the need of new sociability behaviors promoted new ways of technological development, changing, shifting and creating unusual relations between Man and information and communication technologies (Lemos, 2003). This was exactly what happened at the turn of the 20th century to 21st century when many revolutionary network communication electronic devices were developed. To Teixeira (Teixeira, 2012b), as a consequence of globalization and technological growth, the subsequent multiculturalism established a new social structure, consisting of different kinds of people and corporations, guided by interactions, collaborations and knowledge exchange in the newly adult virtual universe.

1 The University Web Radio Stations in Espain

From 2015 to 2018, the Spanish academic stations were characterized by presenting a programmatic heterogeneous grid with respect to content, thus emerging as another option to the ordinary programming of the major conventional broadcasters. In fact, among the generalist Spanish radios, the information and the entertaining and cultural magazines hold 70% of the total offers, while sport only represents little more than 10%. The remaining percentage is reserved for Music and participation spaces and, to a lesser extent, for Education, Religion and other minority genres, such as Fiction (20%), with only a sporadic presence on university radio stations. This

programmatic uniformity becomes even more apparent if we bear in mind that the different networks choose to transmit the same contents at the same time schedule, affecting a vast majority of broadcasters, including those that have been managed in recent years.

Figure 1. Radio Universidad de Navarra
Source: www.unav.edu/web/vida-universitaria/sociedad-y-comunicacion.

Programs with training characteristics also have a highlighted presence on Spanish academic radios offer, especially on *Radio UNED* programming, through which it is possible to have online access to spaces dedicated to people studying, among others, Hispanic and English Philosophy, Philology, Economics, Business Administration, Tourism and Business Sciences and Law. They also provide Continuous Education contents (*Ponte al Día*), access to the University (Access Course) and general information on higher education (University Newsletter).

In addition to the services offered by Radio *UNED*, it is also possible to find, in the remaining academic broadcasters, educational spaces, some of which are directed not only to the students themselves, but also to all people who are interested in accessing to the radio on a virtual level. As an example we indicate some programs: *Con Ciencia en los bolsillos y Don de lenguas* (*Universidad de Salamanca*), *Aula 21* (*Universidad de León*), *Ona ciència* (*Universitat Pompeu Fabra*) *Aula salud* (*Universidad Autónoma de Madrid*), *Echando la vista atrás* (an instruction space dedicated to History), *Es de justicia* (Law), *Economía y empresa, Historia de las ideas* (Phylosophy), *La biblioteca* (Literature), *Tirando de la lengua, Pensar la Fe* (*Theology*), *Nativos digitales* or *A Ciencia Cierta* (*Universidad de Navarra*). Information about current events and news produced by universities are also present in the grid, with magazines such as *Buenos días* (*Universidad de Navarra*) or *El quiosc de La Rambla* (*Universitat Pompeu Frabra*). However, the most common are reports focused on literature, theatre, music and, above all, on cinema, such as: *Entrada Lliure* (*Universitat Pompeu Fabra*), *La siesta del fauno* (*Univeridad Politécnica de Valencia*), *Efecte Dominó* (*Universitat de Barcelona*), *Clásicos de cine, Carta de libros y Patio de butacas* (*Universidad de Navarra*) or *Buscando leones entre las nubes* (*Universidad de Salamanca*) (Teixeira & Perona Páez, 2010).

According to Perona Páez (Perona Páez, 2009), along with a worldwide trend and according to researches carried out within this area, online radios should not be restricted to "generalist" functions, but should also be a combining tool with a complementary interface aimed at people's education, whether it is instructive or informative. Therefore, the alternative nature of the analysed broadcasting companies is marked by the exploitation of contents that can hardly be found in other grids, such as programs dealing with the problem of social exclusion, those which make science and knowledge popular, as well as those that emphasize less commercial music or that bring together cinema, literature and art (ibidem).
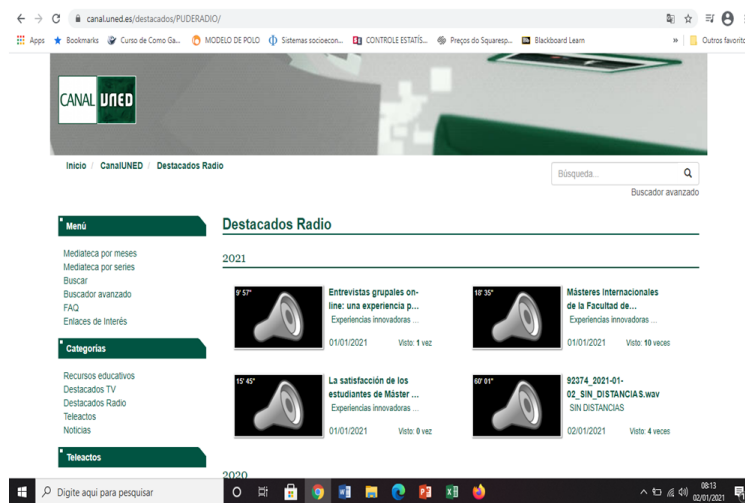

Figure 2. Radio UNED
Source: https://canal.uned.es/destacados/PUDERADIO/.

On the other hand, it presents a wide range of educational programs, ranging from formal and informal classes to professional and technical training courses and languages, thus providing an alternative and complementary teaching and learning background. For students, it represents an extension of knowledge and an interactive room outside the traditional classrooms, approaching Lévy's concept on "cyberculture", or even, on the virtualization process society faces nowadays, in which the virtual is not opposed to reality, but it complements it (Lévy, 2010). Hence, the main activity yet to be developed by educators is to advise educational institutions on the use of New Technologies of Information and Communication as a didactic support, promoting and spreading their educative applications inside and outside classrooms.

2 The University Web Radio Stations in Portugal

According to research done on 1ST September 2016, on ERC, "*Entidade Reguladora Para a Comunicação Social*" (Media Regulatory Authority) Website – a Portuguese government agency that regulates and supervises entities media activities on that country – no specific laws for Internet radio broadcasting were found. Radio Law in Portugal draws a distinction between generalist radios and thematic ones; the first ones are those whose content includes a vast array of themes, and the second ones are those that simply obey to a

certain model, addressing a specific content, such as music, information or other, being *ERC* responsibility their respective classification. Alongside with the radios already mentioned, there are university radios produced for and aimed at university populations.

In Portugal, contrary to in other European countries, the university radios on the web appeared at the end of the 90's, and today, after almost two decades, few remain active in the national scenario. In Portugal, there was four university radios with FM emission and few projects of university radios in the web, until 2016. Teixeira (2016) also shares the same information, identifying the *Rádio Universitária de Coimbra* – from Universidade de Coimbra; the *Rádio Universitária do Marão* – from the Trás-os-Montes and Alto Douro Region; the *Rádio Universitária do Algarve* – from the Universidade do Algarve; and the *Rádio Universitária do Minho* – from the Universidade do Minho, as the portuguese university web radios. Besides these, from the research performed for this work, we have identified the presence of other two university radios – the *Rádio Universitária Beira do Interior* – from the Universidade Beira do Interior, and the *Radio Zero* – from the Instituto Superior Técnico. In global terms, it is possible to assert that they share similar objectives, but have different and heterogeneous structures and program typologies (Teixeira, 2009).

If for the advertisers the traditional radio had a low financial cost and reached a great number of people geographically dispersed, the internet emissions further lowered this cost, with a global level market share. So, the emissions began to operate on the hertz and web formats, giving to the advertisements an impact much bigger than the isolated hearing stimulus and, thus, a virtually decisive influence about the customer reaction.
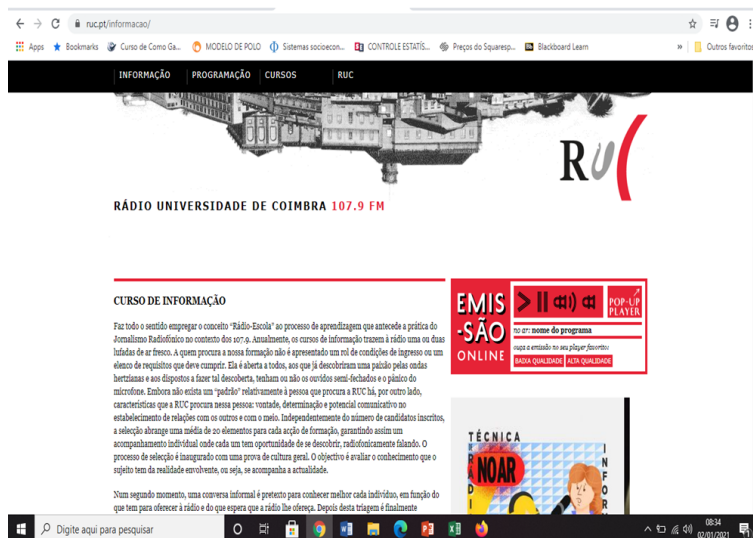

Figure 3. Rádio Universidade de Coimbra
Source: www.ruc.pt/informacao/.

However, among the mentioned radios, the *Rádio Universitária do Minho* stands out presently for its diverse and segmented program on the web, dedicated to the promotion and divulgation of cultural, scientific and support activities to the lectures of the Universidade do Minho, representing, at the same time, some of its departments and academic unities, besides a strong cultural intervention in the local communities of the Braga and

Porto Districts. The Rádio Universitária do Minho (RUM) exists since 1989, and since 2006 it started to transmit via web, with a clearly heterogeneous program offer, on which spaces of purely formative-instructive character are mixed with others that explore different categories and formats, closer to some ongoing experiences in Europe. According to Leão (2007), the RUM launched two crucial interfaces in the context of its strategy to conquer and gain the loyalty of new public: the website and the online emission. The consolidation of the online emission, particularly, revealed as an alternative to the "conventional receptors", emphasizing culture, debates on education, science, economy, politics, news, local informs, chronicles, interviews, and specialized reports (Teixeira, 2012a).

In its relationship to the Universidade do Minho, the RUM makes available the virtual space and a group of technological interfaces for the lecturers to divulge their scientific works, suggest readings, stimulate the debate on themes related to their disciplines (discussion forums), to inform grades, tests, interviews, divulge local, national and international academic events (congresses, seminars, talks, colloquiums, meetings...), store lectures in podcast (in a way that the student can have access to the discipline contents in any part of the world), besides the possibilities of synchronous and asynchronous communication with the broadcasting station, through E-mail, Blog, Messenger, Twitter, Facebook, Hi5 or Myspace (ibdem). Besides, it is on the program grid that the RUM is most different from other Portuguese university radios, for its thematic diversity and of the programs dedicated to the educational-cultural and journalistic categories.
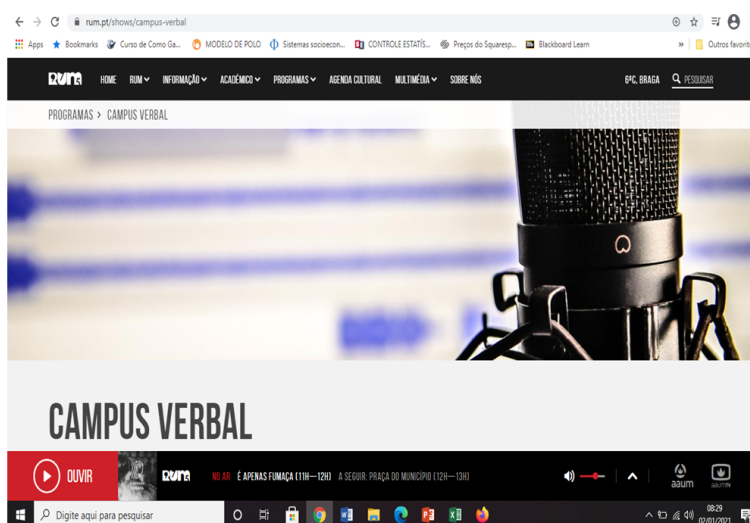

Figure 4. Rádio Universitária do Minho
Source: https://rum.pt/shows/campus-verbal.

This is the RUM online, functioning as a social communication vehicle of local communities and as a valuable space for the divulgation, socialization and popularization of science and technology, produced by different departments at the teaching institutions. According with the researcher (Cordeiro, 2010), the contribution and influence of university radios in the development of the future professionals' formation, allied to the importance in the context of radio-phonic communication in general are incontestable, and, in a context where the main concern is the profit-making of the station, university radios appear as ele-

ments that offer alternatives of program and formation.

It is also reasonable to argue that teachers' new space and time perceptions, as well as those of the teaching and learning process as a whole, are of a crucial importance in establishing a school under new paradigms, achievable through the application of electronic age concepts, such as *E-learning, Open School, University Without Walls* (*UWW*) and *Social Web*, i.e. the socialization phenomenon already taking place at a global scale in an environment of sharing experiences, information and online learning (Correia & Tomé, 2007). Over the years, the media gradually adapted itself to the technological development and the social changes of each period, so much in the program schedule format, as in the genres and in the segmentation of the audience, transformations which ensured its continuity on the contemporary times. Provided with historical facts, (Teixeira, 2013) explains that is possible to see clearly that happened important changes on the hearing habits of the people.

The technological convergence of the mass media is the result of a long adapta- tion process of their communicative resources to the evolutionary changes of each historical moment. Thus, the new media became (plurally) an extension of the traditional media, allowing to the public access information in a wide range of digital devices (Macquail, 2017). In this sense, our qualitative study with empirical-descriptive nature focuses on a lite- rature review about Web Radio and its educa- tive strand. This is an innovator and incipient issue on literature when investigating the po- tentialities of the radiophonic universe to the online educative process.

By itself, the fruitful study follows the path of the radiophonic evolution integrating the online education on the media sphere, es- pecially on the production of educational con- tent to the programs, and the conception of a new language to the environment, a promi- sing ambience to the contemporary radiopho- nic culture. From this scenario, we contextua- lize with the case study of the web university radios on Spain, showing its educative contri- butions to the Spanish academic community, like Radio ECCA.
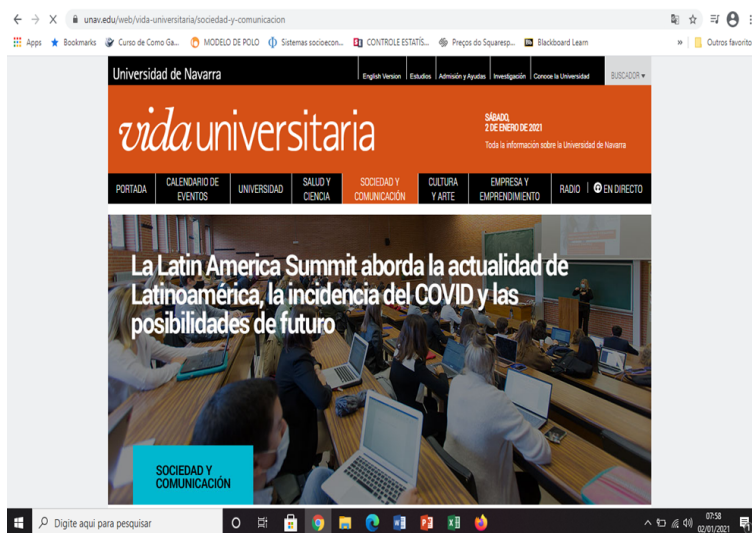

Figure 5. Radio ECCA
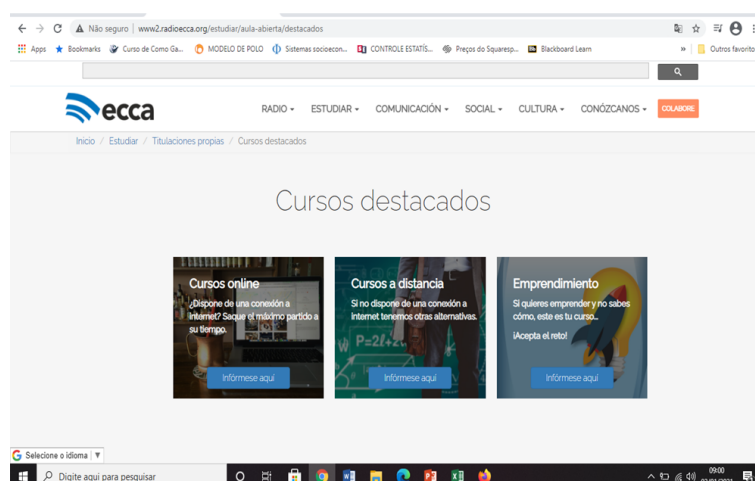Source: www2.radioecca.org/.

Figure 6. Radio ECCA (Courses)
Soure: www2.radioecca.org/estudiar/aula-abierta/destacados.

Due to the unusual nature of this investigation, we intend to promote the phenomenon of the "Educative Modalities of Radio on the Digital Era", that makes itself present on many European countries, at the same time, expanding the debate among the international scientific community. Such information offers us consistent elements to move from the tacit to the explicit knowledge, with property of causes and consequences, going beyond the bibliographic limitations.

Conclusions

The universities and schools through a Web Radio can provide educational programs in Podcast with different themes for different courses or areas of knowledge, which will be available online and can be accessed at anytime and anywhere in the world. Through this technological resource, there is no possibility of losing the program if the person is busy, the programs are available online and can be accessed when necessary or possible. The Podcast integrated in the Web Radio brought the ease of access to fast information and collaboration between people around the world.

According to the preliminary results of this investigation, the university radios are not restricted to generalist or informative functions anymore, but figure as a complementary or alternative mean for people's formation. However, the understanding of the web radio as an educational-communicative media has been followed by some difficulties related to the international academic community, in face of the still restricted investigation about the potentialities of online radio. Besides that, due to the similarity of its basic characteristics, it is common for the student public to confound podcast with web radio. Another question to be considered is the need to create its own identity as a means of mass communication on the web, once it comes from a traditional media format. Even though it is still in need of a solid methodological-theoretical basis, the use of the web radio as a formative interface has been expanding significantly in the world.

In Spain, the university broadcasters have been converted into real alternatives to the big generalist radio stations programming, extremely motivated by a huge expertise and homogeneity which prevails in relation to the contents to which they refer. In this way, the analysis made has revealed that Spanish academic radios clearly have a heterogeneous offer, in which programs of educational and ins-

tructive character are mixed with others exploring different genres and formats. Consequently, emerges a range of options, in which topics are dealt under different approaches that are dominant in the conventional model, favouring the development of a critical and solidary perspective.

Taking advantage of the Internet interactive potentials, university radio stations seem to demonstrate a certain sensitivity in ensuring the rights of access and participation, something that has been increasingly neglected in other communicative fields. Is possible to clearly observe the benefits that the technological advances are meaning to the development of the radio communication, when meeting the experimentation with new sound formats, the mediated interaction and the communicative complimentarity which come from different digital interfaces on the Internet. We add the fact that the students seek ever more time flexibility, low cost to access the information, mobility and communication in real time with their peers. So, this is a wise investment for the universities, with guaranteed return on the production of knowledge on the teaching perspective, reality that we knew in Spain with their University radios. Is a cultural question that transcends the "want to do", the "want to implement". Ahead of the possibilities, if the characteristics of teaching and learning be oriented in the way of incorporate the Web University Radio as an educative technology on the higher education; it will be a very interesting option for the online education (Teixeira, 2016).

In general, we believe that the radio web use as an educational interface has being significantly expanded throughout the world, though there is still a lack of a solid theoretical and methodological basis. In this sense, it becomes evident the need to more fully investigate the teaching and learning process through the web radio in educational institutions. In the Portuguese case, more specifically, it is crucial to deepen studies on the academic radio educational and training potentials and

their contributions to the country. In the contemporary context, exploring web radio educational potentials seems to be a new challenge for educators.

The integration of the university radios in learning platforms deserves to be implemented, being through partnerships with the education institutions, being by initiative of the own university radio, potential doesn't lack for this. When introducing the educative strand, new horizons are established and new possibilities are evidenced toward the classroom and online education. However, once consolidated, is necessary to investigate the impacts of this integration on the teaching practice and the contributions to the academic community "in loco". This is one of the references for future studies.

References

Bauerlein, M. (2008). *The dumbest generation: How the digital age stupefies young americans and jeopardizes our future.* Penguin Group.

Cordeiro, P. (2010). *A rádio e as indústrias culturais. Estratégias de programação na transição para o digital.* Livros Horizonte.

Correia, C., & Tomé, I. (2007). *O que é e-learning.* Plátano Editora.

Leão, V. (2007). *As rádios locais e o desenvolvimento territorial: As rádios universitárias.* Departamento de Geografia da Universidade do Minho.

Lemos, A. (2003). Cibercultura: Alguns pontos para entender a nossa época. In A. Lemos & P. Cunha (Orgs.), *Olhares sobre a Cibercultura* (pp. 11-23). Sulina.

Lévy, P. (2010). From social computing to reflexive collective intelligence: The IEML research program. *Information Sciences*, (180), 71-94.

Macquail, D. (2017). *Communication*. Taylor & Francis Group.

Perona Páez, J. (2009). Edu-webs radiofónicas: experiências españolas de educación em medios. *Comunicar*, *23*(13), 107-114.

Teixeira, M. (2009). *A rádio web como uma interface dinamizadora da prática educativa: Estudo de caso da RUM* [Master Dissertation]. Instituto de Educação da Universidade do Minho, Braga.

Teixeira, M. (2012a). *Cyberculture: From Plato to the virtual universe. The Architectute of collective intelligence*. Grin Verlag.

Teixeira, M. (2012b). *As faces da comunicação*. Grin Verlag.

Teixeira, M. (2013). *Da educação a distância às plataformas de aprendizagem: sistemas alternativos de educação mediada*. Grin Verlag.

Teixeira, M. (2014). *Tecnologias de informação e comunicação: protagonistas da comunicação virtual*. Lulu Publish.

Teixeira, M. (2016). *The history of radio from hertz to the web. communication, entertainment and education*. Grin Verlag.

Teixeira, M., & Perona Páez, J. (2010). The educommunication of web radio: The case studies of Portugal and Spain. *International Journal of Multidisciplinary Thought*, *1*, 305-315.