PROCESSES OF INNOVATION AND TECHNOLOGICAL APPROPRIATION IN COMMUNITY RADIO STATIONS. A STUDY OF LA COMETA AND LA ESQUINA RADIO IN COLOMBIA

PROCESOS DE INNOVACIÓN Y APROPIACIÓN TÉCNOLÓGICA EN LAS EMISORAS COMUNITARIAS. UN ESTUDIO SOBRE LA COMETA Y LA ESQUINA RADIO EN COLOMBIA
PROCESSOS DE INOVAÇÃO E APROPRIAÇÃO TECNOLÓGICA EM ESTAÇÕES DE RÁDIO COMUNITÁRIAS. UM ESTUDO DA RÁDIO LA COMETA E LA ESQUINA NA COLÔMBIA

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ABSTRACT
The purpose of this research is to analyze the processes of social appropriation of the Information and Communication Technologies in the community radio stations La Cometa and La Esquina Radio located in Colombia. The qualitative analysis uses the semi-structured interview as a research method. The results of the study show how technology can strengthen the communicative projects of community radios, providing mobility, independence and facilitating their relationship and proximity to their communities of influence.

KEYWORDS: Community radio, social development, media administration, content production, digital technologies, audience participation.

Introduction

Community radio stations provide spaces for participation and meet the needs that the mass media have not been able to satisfy in the communities, such as making local processes visible, strengthening their identity and being key players in the generation of public opinion (ÁLVAREZ, 2009).

According to data from MinTIC (2015), there were 624 community radio stations in Colombia. These media face multiple limitations, such as the impossibility of making chained broadcasts, low power and weak coverage, even in urban perimeters of incidence (ÁLVAREZ, 2009). Likewise, the diagnosis presented in the *Conpes 3506* document (MinTIC, 2008) points out the lack of qualified personnel, shortcomings in audience studies, obstacles in obtaining resources and problems in terms of technological infrastructure, access and use of the Internet.

In this context, Information and Communication Technologies, ICTs, have been shyly incorporated into the communicative practices of community radio stations due to

the lack of financial, human or technical resources. This situation could negatively affect the production, editing, archiving and broadcasting of contents, as well as the possibility of sharing and building them collaboratively (AMARC ALC and ALER, 2010).

Due to all these reasons, the collectives of producers, directors and administrators of radio stations are going through a gradual process of ICTs social appropriation that requires detailed attention. The purpose of this research is to analyze the uses and ICTs social appropriation processes in two community radio stations in Colombia: one urban example (*La Esquina Radio*, located in the city of Medellin) and a rural one (*La Cometa*, located in the municipality of San Gil, in the Santander department), between 2014 and 2016. In this research, ICTs are understood as social constructs which act simultaneously both as media and as communication relations (JOÜET, 1993). Going beyond the instrumental level of the analysis of tools, the use of technology as a mediator of communicative processes is investigated. That is, as a carrier of symbols, meanings and forms of social expression.

Despite the fact that the Ministry of Information and Communication Technologies (MinTIC) in Colombia promotes the use and appropriation of ICTs in community radio, little is known about the technological adoption processes nationwide.

In the media field, technological transformations have been studied extensively. Technical aspects affect the way news are made, and these aspects need to be observed in order to understand what is happening in newsrooms, according to Boczkowski (2004). This author points out that although convergence is a fundamental aspect of organizational culture, it has not been sufficiently explored in concrete case studies (BOCZKOWSKI and FERRIS, 2005).

These inquiries have their roots in studies on adoption, innovation and technological change, where authors such as Rogers (1962), Latour and Woolgar (1986) and Bijker (1995) have attracted special academic interest due to their theories on the Diffusion of Innovation, Social Shaping of Technology and Social Construction of Technology. Despite their differences, there is a common interest in discovering how the adoption and evolution of an artifact is linked to a given social context.

This article sheds light on a little explored field of research in Colombia and Latin America, which is necessary to define public policies and to create training plans according to the real needs of community radio stations.

La Cometa and *La Esquina Radio*

The origin of the radio stations studied can be traced back to different moments that imply the needs and practices related to the use of media technologies in Colombia. According to the development of community radio in Latin America, the radio station *La Cometa* (107.2 F.M. stereo) was born in 1995 as a means of citizen empowerment and to express an economic and social process that emerged in the 1950s, framed by cooperativism and solidarity economy.

La Cometa is located in San Gil, an intermediate population of about 40,000 inhabitants, with 70% located in the urban area and 30% in the rural area. It is the agricultural, commercial and financial epicenter in the south of the Santander department. This project was led by the priest Ramón González Parra, together with his brother, Samuel, in the provinces of Guanentá, Comunera and Vélez. Their initiative has generated a number of enterprises under the cooperative model (rural, savings, women's, youth, etc.) and has allowed people from remote places to be trained as leaders and multipliers of the cooperative model.

La Esquina Radio emerged in the department of Antioquia, 17 years ago, during the dotcom boom, when community radio stations began to find an easy and low-cost transmission system on the Internet. *La Esquina Radio* began broadcasting without a license because Colombian legislation blocked, until 2008, the possibility of creating community media in the main cities of the country, arguing that the cities had sufficient coverage through commercial stations. Under the public announcement No. 001 from the Ministry of Communications in 2008, when licenses were granted to 13 community radio stations in four capital cities: Barranquilla, Bogotá, Cali and Medellín, *La Esquina Radio* (104.1 F.M.) was officially created in the city of Medellín, covering Communes 8, 9 and 10.

Its recording studios were initially located in Commune 8, in the upper part of the Villahermosa neighborhood. However, the "invisible borders" between the Medellín communes and related insecurity limited the mobility of its professionals, as well as the content production for its programming grid. In the midst of a scenario of uncontrolled violence since the mid-2000s, the invisible borders prevented the free mobility of citizens between certain areas. Those who moved from one place to another within the communes could be killed, and the radio did not escape this reality.

Therefore, in order to overcome the mobility challenges, the production of content started with the use of tools such as Skype, smartphones, consoles and laptops. The contents are transmitted from Palco's studios, located in downtown Medellín, through an IP address to Commune 8. This way, ICTs help to overcome the physical limitations

due to public order and make *La Esquina Radio* a particular community radio station that technically frees itself from the territory, although it remains culturally and communicatively linked to the place where its operating license was granted.

It is important to keep in mind that while *La Cometa* is part of a socioeconomic process, in the light of the solidarity economy, which meets the communication needs of an intermediate population through a conventional use of technologies, *La Esquina Radio* is located in one of the cities with the highest Internet penetration rates in Colombia.

The redefinition of the communicative practice space in community radio stations

Technological advances facilitate the processes of convergence, interconnection and encounter between people in a globalized society. In this context, the community seems to enter into crisis and redefine its scope. Researchers such as Castells (1998) call this moment "historic" due to the possibility of weaving global networks: "[...] the result of the interaction between the emerging technological paradigm based on the digital revolution and certain far-reaching sociocultural changes" (CASTELLS, 1998, p. 12). The Internet articulates the global and the local, as "the scenario where processes related to the growing fragmentation of collective identities, the concentration of the media, the global unification of cultural signs and the internationalization of the consumption of certain goods and services interact" (CASTELLS, 2014, p. 222).

Globalization, as a process, implies taking into account changes in the notion of time and space. According to Martín-Barbero (2002), the new spatial configuration radically weakens the borders between the national and the local, in geographical terms. "Globalization is expressed in the constitution of new spatialities, understood as large intertwined interaction networks that go from the global to the local and personal contexts (everyday social experience)" (FAZIO, 2002, p. 7).

In the current scenario, social movements, specifically organized communities, are wondering how to be part of the global, from the local, i.e. how to respond to current trends and continue to be authentic, without losing the cultural, social and political identity traits that are reflected in their communication projects? Community radio tries to answer these questions by transforming its communication systems, its contents and its sound languages, its classical forms of broadcasting through Hertzian waves, cable and satellite, to adopt the Internet and reception by mobile devices. This change implies the possibility of promoting interactive, global and on-demand communication systems through new services such as podcasts distributed on iTunes, Spotify and other social

platforms that facilitate the emergence of diverse contents, uses and sound consumption.

Such technological openness could jeopardize the identity of the political and social project of community radio. But, at the same time, it offers a significant range of possibilities to strengthen the communication for development projects, favoring networking, facilitating communication in vulnerable communities and turning radio into a mediator between citizens. All this can be achieved thanks to the technological interconnection possibility that opens up new forms of expression, storytelling and content creation (AMARC ALC and ALER, 2010). As Couldry (2008) points out, the new media offer new ways of linking communities and strengthening democratic processes by blurring the boundary between the listener and the producer of information.

The democratic nature of technologies can only be appreciated to the extent that all citizens can interact and are considered participating subjects capable not only of receiving but also of generating contents that account for the diverse cultural and social manifestations (JENKINS, 2006). This implies a constant interaction between global thinking and local action.

Social construction of technology and its relationship with innovation

Community radio is more than just a technology. Beyond the technological system of production and transmission, it includes a type of management, operation and specific communicative project, whose social sense is articulated in ways of doing and objectives that differ from commercial radio, and which proposes a necessary alternative to counteract the pressure of the hegemonic media and their cultural indoctrination, in conflict with the communities way of life and traditions (HOJAS, 2013).

Even though innovation is a broad concept that can include many different theories, from the perspective of media organizations it has often been linked to the study of the processes by which products, structures and relationships between creation and work are developed within an institution (UTTERBACK, 1994). This procedure is undertaken for positive purposes, but it cannot always be seen as something favorable as it may sometimes have negative effects on the media and on society (DEUZE, 2007).

The importance of technology then lies in understanding its use not only as a support for the production, storage, distribution or sound reception, but also as a set of tools able to introduce new communicative variants, new contents and languages "in accordance with user groups, territories and each era" (CEBRIÁN, 2011, p. 4). ICTs are part of material culture because "they are produced in the course of a social process,

within a particular institutional environment and on the basis of the ideas, values, interests and knowledge of their original creators and their continuers" (CASTELLS, 2014).

Under this paradigm, technologies are not only tools to be applied but also processes to be developed, susceptible to constant innovation and modification. Castells (1998) states that even when technology does not establish a social change or historical evolution, its existence or lack thereof "shapes the capacity of societies to transform themselves, as well as the uses to which these societies, always in a conflictive process, decide to devote their technological potential" (p. 37).

It is therefore necessary to read the technological changes within the specific framework of community radio stations and their communication projects, since they all take place in particular contexts with their own meanings. For Rodríguez (2010), the Global South, as she calls Latin American communities, is in charge of improvising, hybridizing, converging, mixing, redesigning, distorting and recycling the technologies created by the countries of the North, through the uses given to them. In the author's words, the communities of the South imprint as much creative energy as the original creators. "ICTs, designed in a sterile laboratory in the North, migrate to complex cultural and social contexts in the South, where they are reproduced in new technological creatures" (RODRÍGUEZ, 2010, p. 2).

This perspective invites us to see the problem of ICT adoption in the context of the information and knowledge society, as a phenomenon that goes beyond connectivity, due to the absence of economic and technological resources, in order to analyze the social practices developed in particular processes in the daily life of users.

Methodology

This project is undertaken through qualitative research. To approach the problem, two case studies were selected, taking into account that the radio stations were classified as community radio stations under the current legislation. The origin of the selected stations corresponds to communicative processes developed over several years. This criterion makes it possible to identify consolidated organizational and institutional aspects, according to the management dimensions guiding the research. The chosen community radio stations offer online broadcasting, websites and presence in social networks. In addition, they belong to two different regions of the country, which broadens the field of analysis to understand the phenomenon of ICT use and appropriation in two different contexts.

To determine the categories and analysis variables, the management dimensions proposed by Fajardo et al. (2010) were taken as a reference, based on the study of seven community radio stations in Colombia in relation to their management model. Fajardo et al. (2010) propose a management model for community radio stations that considers the organizational strengthening process carried out by the Colombian Ministry of Culture with its project *Radios Ciudadanas: espacios para la democracia* (Citizen Radios: spaces for democracy). Moreover, it also takes into account the lessons learned from the MinTIC training strategy, *Municipios al Dial* (Municipalities on the Dial).

The analysis includes three dimensions: administrative and financial management, communication project management and social capital management. The administrative and financial dimension relates to the technical infrastructure involved in the management and broadcasting of contents, in addition to their sources of economic funding, bearing in mind that, despite being social entities, they must guarantee their sustainability over time. The communicative project dimension includes ICTs participation in content production processes and their role in the political and communicative bet of the media, online broadcasting services, the creation of new Internet formats and the programs that stand out in the programming for making an outstanding use of ICTs. Finally, the social capital dimension takes into account the social wealth of broadcasters, as perceived in their working groups and audiences as a pillar on which community communication processes are based.

In this research, semi-structured interviews with directors, former directors, announcers, producers, developers and radio programs directors, as well as to those responsible for the programming grid, social networks and websites managers between December 2014 and October 2016 were used as a data collection instrument. A total of 20 interviews were conducted.

Results

Administrative and financial management

In the two broadcasters under study, ICTs have broadened the communicative fields at the organizational and productive levels. Under both perspectives, various equipment, platforms and Internet tools were identified which favor the creation of an innovative communicative ecosystem that coexists with the historical characteristics of the medium. Between four and seven desktop computers with Windows processors were found in the two stations, in addition to laptops and mobile devices for content production. The mobility of portable equipment (telephones, computers and consoles)

represents a strategic ally for the administrative management of the stations because it facilitates internal communication, information transfer, storage, viewing and file reproduction. The technical development over the last decade is tangible in both stations. However, it is important to point out that none of them have an allocated budget for technological updating activities within their action plans.

The use of free software does not seem to be a priority, or has not been planned in any of the stations. This could be due to the lack of training or specific knowledge on the possibilities of collective creation open systems to be used, which facilitate content modification and distribution, as opposed to the technological hegemony exercised by the telecommunications industry in the design and commercialization of licensed programs or systems.

Regarding financial management, it should be noted that both stations face several situations that hinder their economic sustainability due to the limitations on the advertising schedule set by Colombian regulations for community radio. Resolution 0415 of 2010 mentions, in Article 27, that in municipalities such as San Gil, with less than 100,000 inhabitants, radio stations may only broadcast advertising, sponsorship and support for up to 15 minutes of each hour of programming, while for municipalities with over 600,000 inhabitants, such as Medellin, the maximum limit is seven minutes, and paid political advertising is prohibited.

Reports such as the one presented by the Universidad Industrial de Santander (2008) highlight the absence of positive results in order for broadcasters to achieve their inclusion in local and regional public budgets. Thus, the sustainability of these stations falls only on the organizations holding their licenses, without the existence of co-responsibility among the different sectors that should participate in their sustainability, such as the audiences, the state and the licensees themselves (UIS, 2008).

Communication project management

The communication project is the backbone of the radio station and comprises the content production processes, ranging from its thematic conception to its broadcasting. These are defined on the basis of thematic axes that are updated as the social or political stakes vary. For *La Esquina Radio*, technology has been a key element in its political communication project since its beginnings. Its radio producers expressed, during the interviews, their concerns about ICTs in community radio. They wonder how to use digital tools to promote open access, so that they do not create a radio only for Web users. On

the other hand, they recognize the democratic nature of technologies and their potential to generate new ways of working in complex and culturally rich contexts.

Meanwhile, *La Cometa* sees ICTs "as a pending task" in the communication project, according to Fanny López, manager and legal representative of the station in 2014. ICTs are used primarily to produce from the booth, to be later broadcast over the Internet via streaming.

With the support of Asenred, *La Esquina Radio* acquired a streaming service through swaps or service exchanges. As of 2014, they used it only to upload content to their website. In words of Juan Vanegas, webmaster and producer from this radio station, they were "underestimating the power of streaming". But since 2016, the server had two ports, which allowed them to overcome difficulties related to the audio quality of tools such as Skype:

> Streaming has allowed us to stay on the air without interruptions and to improve the quality of the transmissions of outdoor programs. Now we do it directly by streaming, with a quality that exceeds 162 kb per second, which is a very good quality in MP3. So the dynamics have changed a lot, a lot (Webmaster and producer *La Esquina Radio*, J. Vanegas, personal communication, October 19, 2016).

The two stations studied have a territorial broadcast, where the programming grid that is broadcast on the electromagnetic spectrum is the same that can be listened to online. At the same time, the Internet has made it possible to introduce other forms of content broadcasting, such as radio on demand. Regarding the use of ICTs during the pre-production and content production, *La Cometa* has shown evidence of collaborative work, access to new consultation sources and the generalization of shorter formats, 15 minutes long, instead of the traditional half-hour or one-hour slots. Instead, *La Esquina Radio* emphasizes on dramatic formats with the participation of the community through tools such as Skype and smartphones. It is an itinerant and mobile radio station that circulates around different areas of the city.

During the field work, it was possible to observe that the use of new technological tools has allowed them to improve access to both primary and secondary sources of information, optimizing the time required to send and receive production material. As an example, search engines facilitate access to information that was previously out of reach. Platforms such as YouTube make it easier to search for music or sound effects. Likewise, Facebook and e-mail seemed vital for contacting some of the interviewees. Moreover, programs such as *Reinvéntate la vida* (Reinvent life), *Aló ESSA* (Hello ESSA)

and *Cadeneta, Punto y Mono* (Chain Stitch, Knit), used Skype and are now using Whatsapp to interview people living outside San Gil, or even outside the country.

Multimedia elements have been incorporated to traditional radio formats. This is especially noticeable in programs such as the news program *Haz el cambio* (Do the Change) of *La Cometa*, in which, in addition to audio, it is possible to find text and images. In *La Esquina* radio some programs are possible thanks to the use of digital technologies in their production, which favors a communicative project close to the listeners from different communities of Medellín, such as *El Solar de la Esquina* (The Corners Patio), an interview program whose purpose is to get closer to the neighborhood and listeners. The program originates in plots of land next to the houses where stories are told about violence, traditions and their inhabitants culture.

The origins of Colombian radio are closely related to the dramatic genre: radio dramas, radio soap operas and series made live and to be listened to with family, neighbors and friends. However, with the arrival of television in the 1950s, this genre was displaced to the small screen and disappeared from the dial. Nevertheless, the recovery of dramatized sound narratives is striking in *La Esquina Radio*, as a way to reevaluate the ways of talking about the city through fiction, thanks to the use of digital technologies.

Social management

Social capital can be identified within radio stations and their community context. The human teams are usually varied in community radio stations, since they range from volunteer citizens to experienced professionals with training in production and voice-over. Inside the radio stations, the level of training usually goes beyond basic education. *La Cometa's* core team is professional, either with higher education certificates or university diplomas in areas such as financial engineering, accounting, radio production, electronics technology and social communication, according to the position held. External collaborators, on the other hand, have a diverse level of schooling. There are people from rural areas who only completed their initial years of schooling; children and teenagers still in the school and adults with university degrees in different areas such as environmental engineering, law, accounting or social communication, to cite a few examples.

At *La Esquina Radio* there were professional producers; some of them started working empirically in the media and were trained in their regional universities. The station has a core group of about five producers who share reporting, technical management and administrative tasks. In addition, there is a large team of collaborators

who contribute to the production of the programs, including members of the Programming Board and leaders of civil organizations.

Some people working in the two radio stations have extensive experience in social processes and radio production, and along this journey they have gone through the use of diverse technologies ranging from LP or vinyl records, tapes, minidisc, CD or compact discs, electrical machines to personal computers, which has facilitated a gradual approach to digital technologies.

Community radio stations are, in many cases, laboratories and teaching or learning spaces where citizens have the opportunity to go from being listeners to being radio content producers, a reality visible in both *La Cometa* and *La Esquina Radio*. In this scenario, the need to promote training processes to develop further ICT skills amongst their teams was detected, since training plays a key role in the adoption of free software, new operating systems or specific tools for radio management.

On one hand, the inquiries about training revealed a very similar picture in the two cases studied. Comparably, *La Cometa* considers ICT training as a priority within its action plan, but had not developed any action along those lines, and *La Esquina Radio* did not have a defined training plan either. ICT training processes arise spontaneously among producers when they wish to explore, learn about and empirically adapt different tools for content production or broadcasting.

On the other hand, the capital of community broadcasters is supported by their audiences, who, in addition to being listeners, become medium interlocutors (FAJARDO et al., 2010). Audiences guarantee the social sustainability of broadcasters, enabling their efforts while following and executing. The community that is motivated by proximity is capable of achieving specific objectives, thanks to collective support and the undertaking of cooperative and reciprocal actions (HERREROS and CRIADO, 2001).

La Esquina Radio believes in participants and not in audiences; that is, subjects that not only listen to the radio but who also build it:

> [...] Who is the interlocutor? A listener? What we are talking about is participants. If I invite you to participate it is because you are going to join me not, because you are going to hear me [...]. (Director Asociación Palco, D. Patiño, personal communication, December 2, 2014).

ICTs play a fundamental role in the development of this communication policy because they facilitate the mobility of radio stations to different areas of the city and ease the expression, repair and resignification of their territories and identities.

According to *La Esquina Radio's* work team, this process is advancing slowly but following the participatory nature of the station.

> I do not share the premise that the media are there to be the voice of the communities. To me that is false, because the communities have never lost their voice, the media have privatized it, the media have taken away their opportunity to express themselves. All we do is to open the channel and let them speak without intermediation […] (Web master and radio producer *La Esquina Radio*, J. Vanegas, personal communication, October 19, 2016).

On the other hand, for *La Cometa* radio station, the main objective in terms of audiences is to focus on the people who access as listeners from the dial. This vision is embodied in the economic and technical efforts they have made over recent years, including a technical study and the purchase of land to relocate the antenna more strategically, which will improve their coverage.

The interviews reveal that until 2016 the station did not have a deliberate strategy to work with audiences in digital scenarios. Yet, the efforts to link the audience through particular projects are notable in both stations. In *La Cometa*, some specific actions stand out, such as the program *La Estación del Rock* (The Rock station) in 2014, hosted by Alejandra Carvajal, who relied on social networks such as Myspace, Twitter, Skype, Instagram and Facebook from the very process of conception, production and broadcast. Still, perhaps it did not have enough support from the management, being an individual and isolated initiative, and in 2016 it had already left the airwaves.

Likewise, *La Esquina Radio* won a Creation Grant by the Ministry of Culture with a project that invited citizens to make radio theater in order to bring visibility to the peace process, and to help with the construction of historical memory around the armed conflict in Medellin, all through WhatsApp.

> We have a group of young people in *Comuna 13*, in the *La Quiebra* neighborhood with whom we are doing radio theater. All the call for proposals, participation and many agreements have been made through this group on WhatsApp. Doing radio in the street has allowed us to create new collectives. It has also showed us how to be more effective in convening these groups through networks and new technologies. Participation scenarios keep opening up with a telephone line (Webmaster and radio producer, J. Vanegas, personal communication, October 19, 2016).

These outstanding experiences coincide with contemporary storytelling practices found by Spurgeon et al., 2014; Warschauer, 2004; Hargittai and Walejko, 2008 or

Lundby, 2008, among others. It becomes evident how social media reveal subjects' abilities to create and distribute stories, and to express their personality through online content that underlines their creative expressions and the cultural value of communication between populations.

Conclusions

This research focused on the processes of innovation and Information and Communication Technologies (ICT) social appropriation in the community radio stations *La Cometa*, in the municipality of San Gil and *La Esquina Radio*, in the city of Medellin, Colombia. According to the data obtained, there were innovations observed in response to the particularities of each media, their context, their professionals training levels, as well as to the needs and priorities declared by both media in their political communication project.

The context, which is framed by socioeconomic and political aspects, directly influences the access to technologies by the community radio stations analyzed. In the case of *La Esquina Radio*, the broadcasting and content production process has been affected by the political and social limitations experienced since the beginning, such as when they started activities without a license, and later when they experienced the security problems derived from the "invisible borders" in the neighborhoods of Medellín. In this regard, it was observed that ICTs not only provided tools to overcome those obstacles, but also that they are constructive instruments to strengthen their link with audiences, allowing people to stop being only listeners, and their voices to be heard (DE LA NOVAL, 2018).

In the case of *La Cometa*, its origins were characterized by a socioeconomic process based on solidarity or cooperative economy in Colombia. This situation made it possible for the media to become a relevant social actor and to highlight several organizations social processes. In the municipal context of the radio station, the adoption of ICTs has been slower, which has caused repercussions in all areas of media management.

The experiences of the two broadcasters reviewed illustrate the social implications of ICTs and facilitate the identification of the dialogic relationship between technology, innovation and its uses, all rooted, as Barbero (2002) states, in the daily experiences of people, capable of modifying tools and formats in their practices (CEBRIÁN, 2011).

The impact of ICTs on administrative and financial management has been an understudied problem. Most research is limited to the analysis of aspects related to the processes of content production and broadcasting. However, this study makes it clear

that when radio stations incorporate these tools to all the components of the organization, significant changes occur in terms of building the stations, not only as media, but also as sustainable companies.

The findings confirm what other authors, such as Binder and Godinez (2013) and Davoine et al. (2011) have found in other Latin American radio stations, in terms of their limited resources to access software that facilitates their management. Although an institutionalized free software culture was not found in the broadcasters under study, the use of at least one program with these characteristics was recognized in both of them, mainly for production or broadcasting activities. The definitive migration to these systems has not yet been contemplated, perhaps due to a lack of knowledge and training on free access tools.

In both *La Cometa* and *La Esquina Radio* it was possible to identify hybridization processes between new and old technologies, where totally different uses may arise for technology from those originally proposed, in what could be called third factor appropriation (GÓMEZ, 2004). Even though the two types of technologies coexist in all facets of production, the raw material remains oral culture. The recovery of dramatized narratives through digital tools such as WhatsApp reflect what was mentioned by Clemencia Rodríguez (2010), when she states that the communities of the South print all their creative energy to generate new forms of participative communication.

When it comes to work teams training, it was important to discover the informal search for technological knowledge. Nonetheless, it is necessary to design and implement training plans to strengthen the working groups digital skills in community radio stations.

It seems clear that as the radio stations producers take ownership of ICTs and strengthen the administrative, financial management, communication project and the audiences, community radio will open up unexplored possibilities. Although the results of this study cannot be generalized, it is possible to affirm that the two selected cases can be exemplary of the technological innovation process of community media in the South.

Closing this research opens new paths for all types of research. It is necessary to systematize experiences, to deepen the use of free software in the media, to generate knowledge on collaborative production processes based on the use of ICTs and to methodologically explore new paths that allow an approach to community practices mediated by ICTs as a strategy to survive in time. A trail is laid out here to delve deeper into the forms of audience participation. According to Binder and Godinez (2013),

knowing the uses of ICTs made by community broadcasters so far will make it possible to imagine new ones in the future.

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RESUMEN: En este artículo se analizan los procesos de apropiación social de las Tecnologías de la Información y la Comunicación en las emisoras comunitarias *La Cometa* y *La Esquina Radio*, ubicadas en Colombia. El análisis de tipo cualitativo emplea como método de investigación la entrevista semiestructurada. Los resultados del estudio muestran cómo la tecnología puede fortalecer los proyectos comunicativos de las radios comunitarias, aportándoles movilidad, independencia y facilitando su relación y cercanía con sus comunidades de influencia.

PALABRAS-CLAVES: Radio comunitaria, desarrollo social, administración de medios, producción de contenidos, tecnologías digitales, participación de las audiencias.

RESUMO: O artigo analisa os processos de apropriação social das Tecnologias de Informação e Comunicação nas estações de rádio comunitárias *La Cometa* e *La Esquina Rádio* localizadas na Colômbia. A análise qualitativa utiliza uma entrevista semi-estruturada como método de investigação. Os resultados do estudo mostram como a tecnologia pode reforçar os projectos comunicativos das estações de rádio comunitárias, proporcionando-lhes mobilidade, independência e facilitando a sua relação e proximidade com as suas comunidades de influência.

PALAVRAS-CHAVES: Rádio comunitária, desenvolvimento social, gestão dos media, produção de conteúdos, tecnologias digitais, participação da audiência.