Quantitative analysis of the most listened to FM stations in Buenos Aires (2011-2017)

Análisis cuantitativo de las emisoras FM más escuchadas en Buenos Aires (2011-2017)

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Abstract

Cultural diversity is essential when it comes to represent the multiplicity of ways in which different groups of a society are expressed. The present work deals with a quantitative analysis of the music programmed in the six radio stations most listened in the Metropolitan Area of Buenos Aires, Argentina, between 2011 and 2017. The parameters chosen to measure the level of musical diversity existing in the programming of those radios are the quantity of songs emitted, the amount of titles of songs, number of artists and the origin of the same ones. By means of this last variable, it is tried to demonstrate the level of compliance with the last regulatory process of audiovisual communication services in Argentina, which fixes a national music and indie national music share. Finally, the degree of concentration of phonographic producers of the songs and artists cast is shown.

Keywords

Radio; cultural diversity; musical diversity; national music; indie music

Resumen

La diversidad cultural resulta imprescindible a la hora de poder representar la multiplicidad de formas mediante las cuales se expresan los diferentes grupos de una sociedad. El presente trabajo aborda un análisis cuantitativo de la música programada en las seis radioemisoras más escuchadas del Área Metropolitana de Buenos Aires, Argentina, entre los años 2011 y 2017. Los parámetros escogidos para mensurar el nivel de diversidad musical existente en la programación de dichas radios son la cantidad de canciones emitidas, la cantidad de títulos de canciones, número de artistas y el origen de los mismos. Por medio de esta última variable, se demuestra si se cumple o no con la regulación de servicios de comunicación audiovisual en la Argentina, la cual fija una cuota de música nacional y música nacional independiente. Por último, se exhibe el grado de concentración de productores fonográficos de las canciones y artistas emitidos.

Palabras clave

Radio; cultura; diversidad; música nacional; música independiente

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1. Introduction

The Argentinian industry of communication media and entertainment is dominated by commercial actors. Many sectors heavily concentrate audiences, property and advertising income (Becerra & Mastrini, 2017: 192). One of the unavoidable consequences of the structural characteristics inherent to the Argentinian cultural industry is the lack of diversity in content.

For radio emissions in Buenos Aires 62% of the audience was shared between four of the most listened to stations in the city in 2015. This puts the market at a lower concentration that Co-lombia (65%) and Chile (77%), but above Mexico (45%) and Brazil (23%) (Becerra & Mastrini, 2017: 202).

This article looks into the level of musical diversity in radio programming for the most listened to FM radio stations in the Metropolitan Area of Buenos Aires (MABA). This is to say, the paper delves into a specific sector of cultural industry (radio) to analyze the diversity of its content (music).

The first problem encountered in this study of diversity in cultural industry is to define what should be understood by diversity, and the variables analyzed to determine when a system is classifiable as diverse, and when it isn't. This type of analysis is particularly significant in the context of how property is concentrated and the mercantilization of communication and culture. The problem requires special attention in Latin America, where protection of local production and the promotion of cultural diversity need more active public policy.

This article uses UNESCO's definition of cultural diversity; the Convention on the Protection and Promotion of the Diversity of Cultural Expressions (2205) defines the term as referring "to the manifold ways in which cultures of groups and societies find expression (...) Cultural diversity is made manifest (...) through diverse modes of artistic creation, production, dissemination, dis-

tribution and enjoyment". UNESCO's Universal Declaration on Cultural Diversity (2001) states in article 2 "Policies for the inclusion and participation of all citizens are guarantees of social cohesion".

Another definition – effectively generating a matrix on which to base a study – states that cultural diversity linked to audiovisual production establishes three necessary factors: (1) the presence of different types of producers/ proprietors and their amount; (2) variety, balance and disparity between contents; (3) the balance between consumption as well as the possibility of creating and modifying content (Gallego, 2016: 144).

The possibility of expression and display of all cultural expression in commination media is conditioned by the logic of media company management. The pursuit of profitability has its effect on the diversity of musical programming of the same media. The concentration of property and competition make the more profitable sectors of demand are those with the most to offer. The lack of protection for minorities, and the concern over homogeneity of consumption in the pursuit of a scaled economy necessary to generate earnings, produce standardized musical programming that concentrates on select groups of producers and styles. The objective of the present study is to analyze musical variety in the con-tent (programming) most consumed by audiences.

2. Theoretical Framework

2.1. La economía de la radio musical

One of the main characteristics of the products created in cultural industry is the random nature of demand due to their classification as an experience good. For that reason the companies charged with taking their products to market are unaware of what the audience's response will be. In addition these industries tend to reach their maximum profitability when 64

they corner large sections of demand. Lastly, demand does not reach the scale necessary to become financially profitable for all producer companies (Arrese, 2004; Zaloo, 1992; Albornoz, 2005).

With the rise in modulated frequency musical radio emerged as the main mode in which radio broadcasters specialized. From the 80s the FM dial was populated by stations that segmented audiences through the specialization in different musical genres to differentiate themselves from their competitors.

Moreno (1999:93) define a la radio musical como Moreno (1999: 93) defines music radio as the radio broadcast that takes advantage of the emotional dimension of music to establish an emotional connection with its audience, conditioning the listening experience by requiring focus and attention to follow content.

Commercial radio looks for a balance between differentiation and the search for mass audiences. Pedrero (2000) distinguishes two types of music broadcasters: those that function as exhibitors of a certain product, and those that consider music a cultural product. The first type of radio converges the interests of the broadcaster with those of the producers given that both seek a large audience. For the second type "the criteria used to tailor the station's musical selection are based on artistic quality, as appraised by a series of specialists both autonomous and independent" (127).

Air time for programming is finite making selection and rotation processes for musical content key when putting together the radio's artistic program. To become profitable they generally opt for one of two strategies: segment musical content into a commercially viable niche, or aim to reach the largest audience possible with *mainstream* music. There are three basic selection criteria: the artist's or song's popularity based on sales; audience requests; and the radio station's own artistic criteria (Pedrero, 2000: 162). In this fashion radio emerges as the main ally for the music industry in promoting its products. Sanchez Olmos (2009: 32) explains that music has a facet of "musicality" that transforms it into a promotion of itself. When a song is played on the radio, a television program or is part of a film soundtrack not only is it a cultural product, it is also its own publicity.

Musical segmentation of radio audiences as carried out by FM radio stations is also the most effective form of musical *marketing* as it offers, in many cases, an audience compatible with the target demographic of the music producer. They become audiences located for example in a geographical area, that relate to each other in their musical tastes, in a consumer state open to recommendation (Kischinhevsky, 2011: 251). Standardization, homogeneity, the repetition of successful formulas and the centralization of musical programming are all strategies derived from the search for specialization (Ahlkvist & Fisher, 2000: 306).

The segmentation of offer and audiences is a result of different musical formats. Moreno (2005: 80), based on his analysis of radio markets in different global locations, lists thirteen different specialized musical formats: Contemporary Hit Radio, Adult Contemporary, Urban Contemporary, Rock, Alternative, New AC, Oldies, Easy Listening, Nostalgia, Classical, Romantic, Traditional and Local Language.

Technological advances, in particular in music distribution, have led to changes in music broadcasters that, in the words of Martinez & Muller (2017: 88), have added content to their programming. The strategy is the result of the need to differentiate themselves from *streaming* music platforms that program broadcasters online or playlists that obey the particular tastes of a demographic segment or the user. Pedrero, Sanchez and Perez (2015) come to the same diagnosis and subsequently propose improvements in audience studies listening to these particular broadcasters, getting more detailed profiles, developing interactive tools to generate and distribute content, generate digital alternatives to the programming they offer and, among others, revise the organization production models as well as the professional profiles needed to make the necessary developments.

2.2. The radio market in Argentina and its regulation

In Argentina radio has widespread market capillarity in the production of content and access to the necessary support mechanisms to boost consumption that, in 2015, reached 75% of homes according to the National Institute of Census and Statistics of the Republic of Argentina (INDEC). In a cultural consumption survey managed by INDEC in 2013, the results indicated that consumers listened to an average of 3.5 hours of radio every day, while 55% of the audience chooses FM radio, 11% AM and 17% listen to both. In addition to the previous 75% of listeners answered that music programming are their favorite content when listening to radio.

According to Kantar Ibope (2017), a researcher measuring the radio audience in the country, radio audiences choose the medium because they prefer to be informed (47%), because it gives them company (45%) and because they find it entertaining (45%). The audience also considers music content the most valuable. Within that preference the favorite type of music programming of radio audiences are: latest Spanish language hits (52%), latest English language hits (41%), rock in Spanish (32%), tropical music (28%), *canción melódica* (an almost exclusively Spanish genre at 27%), English language rock (24%), folkloric music (10%) and tango (5%).

The radio market in Buenos Aires is divided up into three main media groups: Clarín, Prisa-Albavisión and Indalo. The first has the most listened to AM station (Mitres), and the second most listened to FM station (La 100). The business association between the Spanish and Mexican group, Prisa-Albavisión, has six broadcasting licenses: on AM (Continental) and five FM (Aspen, Los 40, RQP, Mucha Radio and Arpeggio). The Indalo Group has another 6 broadcasters: on AM radio station (Radio Diez) and another FM stations (Pop, Mega, Vale, One and Vorterix). There are other companies as well such as Radiodifusoa Metro (owner of the FM stations Metro and Blue) and Disney, which has artistic control over Disney FM stations and FM ESPN.

3. Methodology

The present article is primarily concerned with the cultural diversity which is understood as the need for an offer and consumption of plural expression from different origins, producers genres and styles. The problem for deeper study proposed herein is that of cultural diversity in commercial radio. To that end the following question is at the center of investigation: What is the music in the programming of the most listened to radio stations in the Metropolitan Area of Buenos Aires, Argentina, like? According to internal and external diversity in relation to artists, songs, origins and the most rotated production companies.

The trigger that led to the design and execution of this study is that these radio stations have music programming that is internally homogenous (each one analyzed individually) and generate *mainstream* music market distribution (mainstream because they are the most listened to songs) that also demonstrate little diversity and a certain level of similarity due to the repetition of subject matter, artists and record labels between them. The diversity in these radios is analyzed herein in four aspects and variables.

First we detail the amount of songs programmed for each station, and the number of times said songs are repeated during the analyzed period. Then each station is analyzed for their relations to record labels and the geographical origin of the music they play (Anglo, Latin or national). 66

This is built and supported by four factors or variables that lead to secondary hypotheses ready for proof: the repetition of phonograms or subject matter, the repetition of artists, the lack of relevance of national music in radio programming and lastly, the concentration of these playlists in the production of the main multinational record label companies.

To gather the information required for the study research was conducted with the aid of the media-auditing platform VERICAST, belonging to the company Barcelona Music & Audio Technologies (BMAT). The VERICAST platform organizes its metadata into different categories: channel (communication media), artist, ranking, song list, channels by catalogue (market from which the music is from divided into: National, Latin, Anglo) and company (record label). Here it must be clarified that there is a margin of error ranging between approximately 3 and 5% in every case. All data was collected between the 11th and 22nd of December 2017 using the filters available on the platform (described earlier; channel, artist, ranking, time period, catalogue etc.). All the lists for every month of October for all the years selected for each on of the radio stations was collected from this same company.

The work herein is an analysis of the six private FM radio stations with the greatest *rating* in the Metropolitan Area of Buenos Aires (36% of the Argentinian population). The study focuses on the musicalization of thematic broadcasters most listened to in Buenos Aires. In this manner, the corpus for analysis consists of the programming from all the most listened to stations: Pop, La 100, Disney, Mega, Metro and Los 40 Principales. Aspen was excluded from the list as it was not possible to obtain the data of their respective music programming. The total number of stations analyzed in this study is 6.

Each one of these FM radio stations specializes in a type of music. According to Moreno's (2005) classification the object of study breaks down into three broadcast types; *Contemporary Hit Radio* (La 100, Disney and Los 40), two *Adult*

Contemporary (Pop, with a stronger influence of Hispanic music, and Metro, tending more toward pop and techno) and one *Album Oriented Rock* (Mega).

As part of the analysis of the Argentinian radio market it must be mentioned that there is a stipulation to broadcasting established by the Law for Audiovisual Communication Services (SCA law) first enacted in 2009. The law in question, article 65 to be specific, states that at least 30% of all music broadcast on these stations must be of national origin – be they songwriters or performers. It also stipulates that at least half of the aforementioned quota be produced independently.

Despite the law was issued in 2009, it wasn't until 2014 that the governing authority, the Federal Authority for Audiovisual Communication Services (from hereon the AFSCA) established the mechanisms for auditing and sanctioning the above quotas.

The study period for the study was the time between 2011 and 2017 as it was this time period in particular that had the most reliable and concrete information available. A sample was taken from the series of music broadcast by each radio station in October for every year in the study period. To analyze the diversity of musical programming for each of the chosen radio stations the study analyzed the number of repetitions of the ten most programmed songs, the number of repetitions of the ten most programmed artists, the percentage of national, Latin and Anglo music as well as the level of participation of record labels. A 'broadcast song' is for the purposes of this study any musical piece reproduced for a minimum of 60 seconds. This filter is intended to differentiate between musical programming and advertising productions or jingles, background music etc.

Measuring the number of repeats for the ten most programmed recording artists included data for the total amount of programmed songs and the amount of artists. Then the number of songs (repeated) for each artist and the representation of the ten most rotated in the total sample. For national, Latin and Anglo music the researchers used the first two digits in the ISRC code, an international code authorized by the International Federation of the Phonographic Industry (IFPI) that indicates the origin of the song.

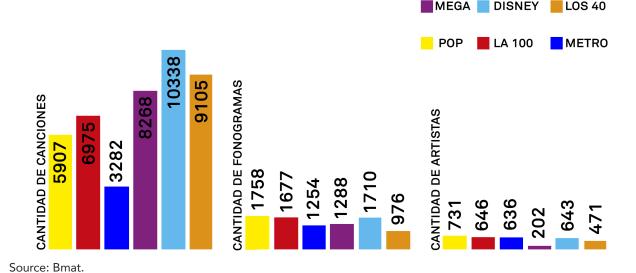
To analyze the participation of record labels or producers in the series of music products researchers once again used the ISRC code, specifically characters 3-4-5 which identify the producer registered for each musical piece. This results in an analysis that considers a methodology measuring the concentration of media property called Four firm concentration ratio, better known as CR4. The index measures the percentage of concentration of the four main actors in a system or market (Becerra & Mastrini, 2017). For the purposes of this study only the four record labels with the most programmed songs in each series of songs was considered. In the same fashion, to measure the concentration of repeated artists and songs the index is based on the ten most used items (CR10). The indicator was calculated using the percentage of participation of the four or ten most relevant actors, and the parameters set to indicate their relevance.

From the gathering of the data necessary for the job researchers put together a database and graphs that made it possible to read the data and draw conclusions, as explained later in this article. The total size and number of the sample, the universe analyzed in this study, consists of 307,113 songs played on six radio stations over the previously indicated time periods.

4. Diversity of musical programming

The first step was to find out how many songs (repeated songs) and how many titles (phonograms) were programmed by each radio station (see Graph 1). From the data it was possible to conclude that, on average, Radio Disney was the broadcaster with the most programmed songs, followed by Los 40, Mega, La 100, Pop and last, Metro. The difference in the amount of music played on the radio is due to the difference in programming format. This data revealed that Disney, the station that programs the most music, broadcasts almost 14 songs an hour. Los 40 is next with 12, and Mega with 11. La 100 (9) and Pop (8) came in at intermediate and then came Metro a distant last (4.5).

The broadcaster with the greatest variety of programmed titles were Pop, Disney, La 100, Mega, metro and Los 40 with the least. However, when analyzing the relationship between total number of programmed songs and pho-



Graph 1: average of aired songs, phonograms and artists.

nograms there are still further characterizations (that are fairer). The broadcaster with the most variety is Metro, where phonograms are repeated on average on 2.6 times a month. They are followed by Pop (3.4), La 100 (4.1), Disney (6), Mega (6.4) and Los 40 (9.3).

The amount of different artists in the programming is also one of the variables taken into account to analyze diversity in musical programming. From the data researchers determined that Pop is far and away the broadcaster with the most artists on average (731). Going down the list the next station with the greatest average of programmed artists per time period is Disney (643), followed by La 100 (646), Metro (636) and Los 40 (471). In last place, and again by a big margin, came Mega (202).

As will happen with phonograms, the relation between artists and the amount of programmed songs shows a wider variety of programmed artists. Here once again Metro is the radio broadcaster with the least time an artist is on air

Graph 2: Concentration of the 10 most rotated titles.

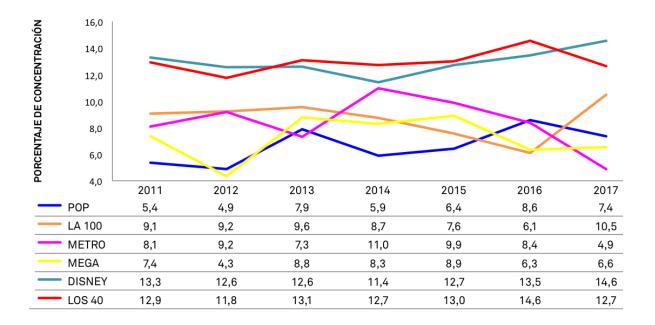
(5.1 times a month). Metro is followed by Pop (8 times), La 100 (10.8), Disney (16), Los 40 (19.3) and, very far from the rest, Mega (40.9).

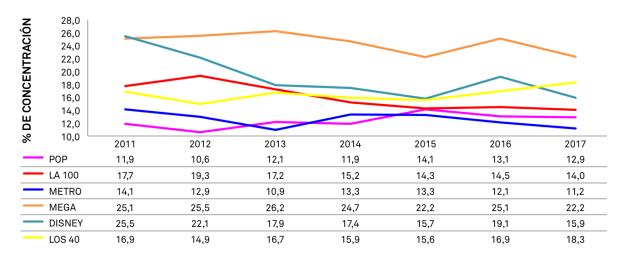
Preliminary analysis reveals that the broadcasters that program the most music (Disney, Los 40 and Mega), and therefore put more importance on this type of content in their business model, are the same stations that repeat artists and phonograms.

4.1. Repeating songs

The first tool used to measure musical diversity on the radio stations analyzed in this study is the concentration of aired repetitions of songs (phonograms). This variable is used to analyze how many times out of the total amount of songs aired in the time period the ten most played songs were broadcast during the study period (see Graph 2).

If analyzed then the rotation of the most programmed phonograms then radio stations with





Graph 3: Concentration of the 10 most aired artists.

Source: Bmat

a Top 40 format replay the most. Disney and Los 40 recorded an average concentration of almost 13% for the years analyzed in this study. That implies that, during those periods, some of these ten songs were played every 36 minutes.

Then, in descending order, comes La 100, Mega, Pop and Metro. For the first one of these songs played every 66 minutes, for the second, every 72 minutes, the third every 120 minutes whilst for the fourth it was every 180 minutes. This is evidence that every radio broadcaster has a high rotation but the highest, as mentioned in the previous paragraph, are radios with Top 40 formats.

4.2. Artist repetition

Another one of the variables considered in this study was, as with titles and phonograms, a measurement of the concentration of replays for the ten most programmed artists for each radio program during the study period (see Graph 3).

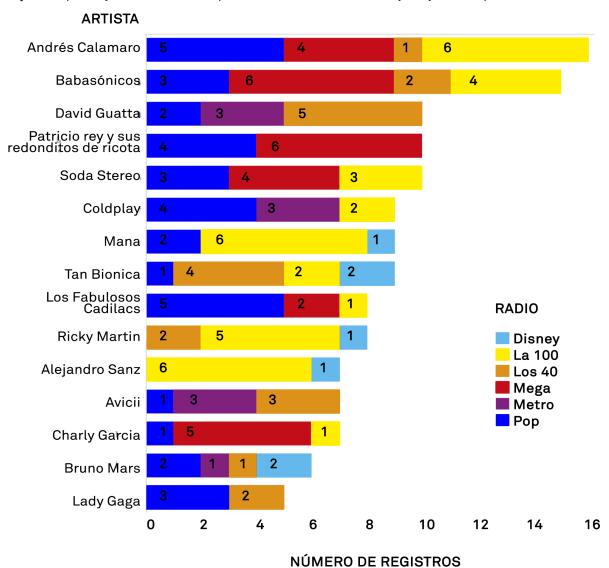
When analyzing the amount of concentrated aired songs (programmed songs) for the ten most aired artists on the radio stations in question, researchers find that, as described in the previous paragraph, Mega is the station that – on average – concentrates the most artists with 24.4%. Then come the radios stations with Top 40 formats: Disney (19.1%) and Los 40 (16.5%), followed closely by La 100 (16%), then further still Metro (12.6%) and Pop (12.4%).

If continuing to use the analytical logic obtained from the most rotated phonograms, programming analysis per hour for these artists complements the interpretation of the data. In that manner, on Mega, some of the ten artists were aired on the station an average of every 20 minutes, while for Disney it was every 24 minutes and Los 40 every 30 minutes. The radio stations that repeated artists the least were la 100 (once every 42 minutes), Pop (once every hour) and Metro (every two hours). Again, the repetition indexes for these artists are higher for radio stations with Top 40 formats with one exception: the radio specializing on a single genre (rock) and segmented for origin (Argentinian) which came in higher.

To complete the analysis the researchers used a cross table: all the tables for all the periods for all the analyzed radio stations were merged to visualize repeatedly aired artists (see Graph 4).

In this search coincidences between the most programmed artists were found. In fact, there is one artist in particular – Andres Calamaro –

Graph 4: Repeatedly aired artists in the Top 10 of all the radio stations in every analyzed time period.



Source: Bmat.

who appears 16 times on the analyzed lists, and on four different radio stations. The table below shows the 15 artists that are repeated most on the merged lists. Of those artists seven are Argentinian, three write music in Spanish (between Latin American and Iberians), and five write in English.

On the other, contrary to what might be expected from an analysis of the concentration of aired songs in the category of phonograms and artists, the Top 40 format radios (Disney and Los 40) are those that least repeat artists. Pop, La 100 and Mega are broadcasters that display a greater number of artist repetitions appearing in six of the seven time periods analyzed in this study.

The reiteration of artists between lists of the most rotated on each of the radio stations is proof that, what could be considered a lack of internal diversity (in the station's musical programming) required to achieve differentiated and competitive

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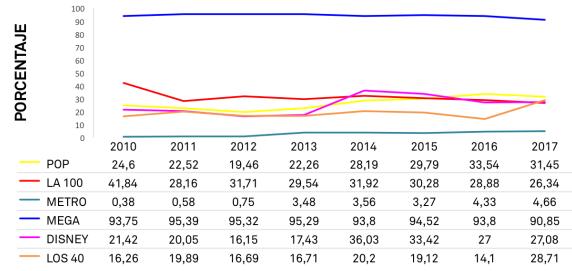
audience segmentation has no effect on external diversity, or in other words, the system. If three of the six radio stations programmed the same artists from the most rotated, it becomes difficult to establish a higher degree of diversity in their offer, and therefore the market, of content. The Radio station with the least artist repetition as compared to its competitors or the other radio stations in this study, is Metro. Then come other different combinations, and from year to year programmed artists replayed to a high degree were found on two or more radio stations.

This observation is reinforced by audience data. Analysis reveals that a good part of the offer is in response to an equal portion of the demand. Pop (69%), La 100 (56%), Metro (76%) and Mega (59%) have a primarily adult audience (between 29 and 49 years of age). Pop (67%), Metro (74%) and Mega (62%) have a majority male audience, while the audience of La 100 (58%), Disney (70%) and Los 40 (51%) the majority are women. These last two have a younger audience making them competitors with a 44% and 53% of the audience share of 12 to 24 year-olds respectively. The sociopolitical composition of the listener audience varies little. A general description shows that 43 to 48% of the audience comes from a lower socioeconomic background, between 30 and 35% are middle class and between 15 and 20% from upper social classes. There are two cases worth highlighting, Pop with a 51% of lower socioeconomic listeners, and Metro with 33% of higher income classes.

4.3. National and foreign music

In this section, in addition to analyzing the percentages of national, Latin and Anglo-Saxon music programmed for each radio station, the researchers also aim to measure the level of compliance with the quotas established in the Law for Audiovisual Services regarding Argentinian music (see Graph 5). From this the conclusion is that, in all seven study periods chosen for the study, there are no significant changes to the programming assigned to national music catalogues.

Mega broadcasts a very high percentage of national music in every period analyzed in the present study; Metro never complies with the required quote with percentages far below the amount stipulated by law; La 100 comes close to 30% of broadcasts of national music in every sample taken; and Los 40 Principales varies between 14.1% (2016) and 20.2% (2014), with an average barely over half of the required quote of national music, the only exception being 2017 at which point they come close to compliance.



Graph 5: Percentage of national music broadcast on each station for each period.



Graph 6: Percentage of Anglo music broadcast on each station for each period.

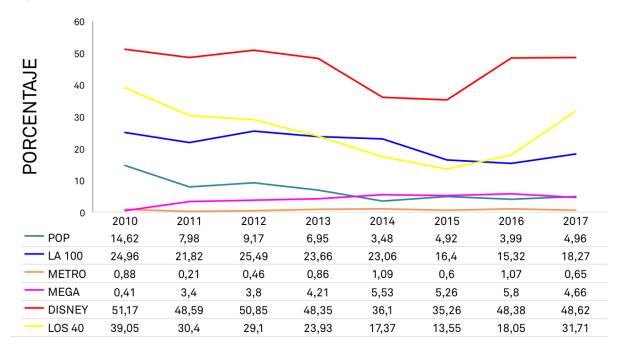
Source: Bmat

The two stations that varied most in the analyzed period are Pop and Disney. Both increased the amount of national music broadcast in their programming until reaching compliance in 2015 and 2014 respectively. From these dates onward the first continued to increase broadcast of national music, and the second decreased over time.

If we analyze the evolution of content in terms of broadcaster compliance with regulations, from 2011 to 2017 researchers ascertain two clearly discernible periods. The first, 2011 to 2013, where two radio stations effectively reached the stipulated quota for national music: Mega and La 100. In the second period, from 2014 to 2017, there were three broadcasters that came close to fulfilling their quota taking into consideration margin of error (La 100, Disney and Los 40), with sustained growth, and the other two that did not comply with the stipulated minimum quota (Pop and Mega).

If one of the characteristics of diversity – the balance between types of music – is taken into account, the analysis of quotas for Anglo and Latin music is evidence of how standard programming acts against the stipulated quotas. Observing this particular data shows how musical diversity is characterized according to song origin. Mega is one of the least diverse radio stations given their programming consists of a high percentage of national music. There is little to no presence of Anglo music (see Graph 6). Three radio stations prioritize Anglo music: Metro, Pop and Los 40. For the first programming consists of over 95% Anglo; for Pop, Anglo music averages 65% with minimal Latin influence; and Los 40 consists of just under two thirds of their programming dedicated to Anglo music, and the remaining third is divided up between national and Latin music at varying proportions depending on the analyzed period.

Lastly, La 100 and Disney are relatively the most balanced radios out of all three catalogues. In the first Anglo music is consistently dominant at a percentage over 42%, followed by national music at the threshold of what is established by law, and Latin music comes in at 20%. In the case of Disney Latin music comprises an average of 50% of programming, following by Anglo with a little more than 30% up until 2014 (see Graph 7). From then onward the quota of national music increased to more than that assigned to Latin music in 2015, and Anglo in 2016 and 2017; in these periods Latin music once again comes to the forefront due to a *boom* of Latin reggaeton hits in the last two years, without impacting on the quota of national music.



Graph 7: Percentage of Latin music broadcast on each station for each period.

Source: Bmat

The data helps visualize that although there is an internal imbalance between the three origins of music rotated through radio broadcasts, a global analysis of these cases shows a variety of combinations between these variables, making it a diverse system; at least in terms of the music's geographical origin.

4.4. Concentration of large record labels

The following graph illustrates the concentration of music produced by the four most broadcast record producers, clearly showing that for each radio station it is very high in every study period. Depending on the station between 72% and 93% of the phonograms aired are produced by the for four most rotated record labels on each radio. For all the radio stations in this study, except Mega, the three biggest global labels are firmly in place as the most rotated on the radio, changing positions depending on the radio and the time period: Sony Music Entertainment (SME), Universal Music Group (UMG) and Warner Music Group (WMG).

On FM Pop UMG is the leader in every study period (2011 - 2017). The second and third place are shared between WMG (2011, 2013) and SME (2012, 2014, 2015, 2016, 2017). Fourth place is always taken by PopArt. The situation is very similar for Los 40 Principales where UMG is the most rotated, and the only factor that changes is the rise of SME to first place in 2017. Third and fourth are WMG and PopArt respectively. In the case of Radio Disney UMG is leader until 2013 where upon SME takes the number one spot in 2014, staying in first place until 2017. Third and fourth place repeat themselves. La 100 also undergoes a struggle for the number one spot between SME (2011, 2013, 2014, 2016 and 2017) and UMG (first in 2012 and 2015), sometimes competing for differences as small as 2%. The third and fourth place are once again for WME and PopArt. Metro is different: UMG is first in every period and the dispute is for second and third place, fought

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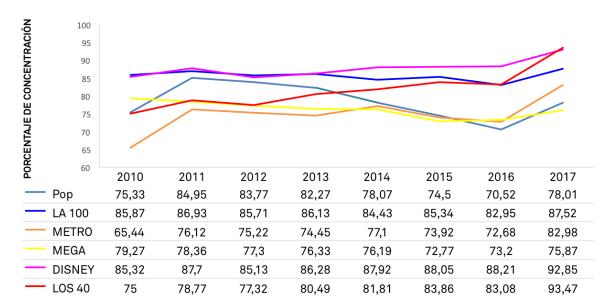
between WMG (2011, 2012, 2013, 2015) and SME (2013, 2014, 2016, 2017).

Taking into account that Metro music programming is centered mainly on electronic music, fourth place is usually held by the Beggars Group (2011, 2012, 2013, 2017): a British conglomerate uniting several different mid-sized record labels. In 2015 and 2016 BMG Rights appeared for the first time in fourth place.

The only radio station that somewhat breaks from the normal logic is Mega. First place in every period included in the present study is for PopArt Discos, a single company with the large percentage of all distribution and management contracts for Argentinian music artists, the vast majority of them of differing styles of national rock. Second and third place are fought over between UMG and SME. In fourth place another Argentinian company, Distribuidora Belgrano Norte (DBN) makes an appearance and which, as indicated by its name, started distributing in the 60s, and from 1983, also began buying Radio producer copyrights for some of these artists. WME generally comes in fifth.

4.5. The quota for independently produced national music

Regarding the participation of independent music in the programming analyzed in this study, none of the radio stations complied with the quota established by law in any of the periods included I this study; remaining far from reaching the objective according to the data used herein. The quota established for independently produced national music - as required by law is 15% of the total amount of aired music. This is the most complex problem with article 65 of the Law of Audiovisual Communication. The quote for independent music is vulnerable to the larger economic interests of the major companies, both international and local, have in Argentinian radio. These interests are made definitive with the exchange of publicity guidelines, artist endorsements or sponsorships or live shows in exchange for better rotation in the musical program. The mechanism is known the world over as payola that, as its Anglo-Saxon name indicates, implies "pay to play". Regarding this common practice, Lamacchia believes that " in the music industry, record labels enter agreements with radio broadcasters to exchange publicity



Graph 8: Percentage of record labels most rotated on radio and during each time period.

guidelines due to the large-scale rotation of musical productions" (2012: 3).

The Argentinian Federation of Independent Musicians (FA-MI) is charged with auditing compliance with the aforementioned quota, and offering a bank of songs and artists that makes them more desirable in the eyes of its radio clients. Bernabe Cantlon, the current secretary of the FA-MI clarifies that the registered quota for the programming presented by the radios consists of only about 10% of independently produced music. However, auditing for listening revealed far lower figures. Cantlon indicates that the scenario is different for radio stations in the provinces, where quotas are much higher.

One of the objectives of the present study is to measure the amount of independent music played on each radio given that, as mentioned earlier, there is a diversity of cultural producers involved. Although the C4 is higher than seventy percent in every single case (radio and for each study period), it is very difficult to comply with, unless, as indicated by Cantlon, AMBA radio stations, located in the most densely populated area in Argentina, although may be fulfilled on occasion at locations in the provinces of Argentina, where folkloric and native music is stronger.

5. Conclusions

When once again looking at the main results of the study into musical programming for the most listened to radio stations in the AMBA, Argentina, there is a rapid response available to the question of origin. The music they program is homogenous. Internally programming is homogenous in every radio station, with highly repeated songs and artists that ultimately respond to the use of music to create a closed radio format. It is also homogenous at a systemic level, given the same artists are repeated among the most aired artists for each radio station. The only aspect or point in which the present study determined a level of diversity within the system, is the balance between Argentinian, Latin American and Anglo-Saxon music.

This is the conclusion the researchers came to after analyzing all the different variables. The repetition of the 10 most rotated songs is clear evidence of how radios with a Top 40 format use this mechanism as a business model, while other broadcasters with a lesser rotation, also assiduously behave in the same manner. The reiteration of the 10 most programmed artists is similar between broadcasters with the exception of the radio station dedicated to national music, which repeats songs at a rate double to that of a Top 40 radio. On this point the researcher must also demonstrate the coincidences and repetitions between the most programmed artists on each of the radio stations.

Lastly, this study registered some improvements in the quota of national music required by law be aired on the radio, although the same cannot be said for independently produced national music. The balance between Anglo-Saxon, Latin and national music is also evidence of variety in the manner in which the quota for each broadcaster is composed of each type of origin. On this point the researcher can claim that there is diversity in the distribution of quotas in the analyzed quotas.

In regards to the concentration of phonographic production, we can affirm that the programming of radios located in Buenos Aires replicates the commercial logic inherent to the music industry on a global scale. In this scenario UMG is the most visible actor, second comes SME and WMG respectively, and then other mid-sized companies come in fourth (in this case the local producer PopArt). This is how the present study fulfills the objective of proposing an analytical methodology for musical diversity in the radio industry. The answer to implementing commercial criteria (both in the musical industry as well as the radio industry) is immediately apparent the moment an offer is proffered that caters to the broad and diverse world of music and the cultural demands of society at large. In addition to the previous, the competition between these radio companies to capture significant volumes of profitable au-diences makes what they offer less diverse, and the artists, songs and musical style repeat themselves between programming. On this point the challenges of the convergent scenario for the music radio scene appear to have led to a response for these companies to specialize less/not differ so much in their music, and increase similarities between them for strategic programming.

The role of the State as a promoter of diversity of the cultural messages in circulation turns it into an important actor most relevant when controlling compliance for the existing regulations, and in the design of other possible sustainable policies in the relationship between the radio and music industries.

Final Notes

1. Report by Kantar Ibope: Panorama of the Radio scene in Argentina 2017".

2. This is according to the audience data for radio stations provided by the company Kantar Ibope in 2016.

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