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## Choice of music repertoire in traditional and Internet radio stations

Key words: radio station, Internet, music repertoire, record companies

Summary: The first part of the article presents scientific views on how traditional radio stations decide what music to play on the air. The second part of the text analyses a new type of internet radio station – Last.fm, concentrating on the ways in which it monitors music preferences of the listeners and uses this knowledge to shape music repertoire. In the last part of the article, the author compares Last.fm to music shops and attempts to answer the question whether Last.fm has a chance to become a success as a subscription service.

### Introduction

The onset of the Internet, the dynamic process of media convergence and the development of digital technology result in many researchers being interested in the future of radio. To illustrate this interest a good example were articles published on this topic by *Studia Medioznawcze* in 2006<sup>1</sup>. Each of those articles discussed important issues regarding the evolution of radio, however, the speed of technological advancement requires us to further research and analyse this issue, taking into consideration the on-going changes. This text attempts to analyse how, due to the Internet, changing are ways of choosing music repertoire by radio stations.

### Choice of music repertoire in traditional radio stations

The type of music that is played by radio stations is generally determined by the format of a given station. This is true for both, traditional and Internet radio stations. Obviously, the choice of music repertoire is more imperative for stations which focus predominantly on music instead of on radio programmes or shows.

The type of music that is played is usually based on one music type, sometimes several with one predominant one. It is dictated by radio listener preferences as well as listener demographics such as age, sex, education and economic status. Radio station profiles reflect various recipient group needs and expectations defined as the radio station's target group based on demographic data<sup>2</sup>. It should also be noted that narrowing down listener profile still allows the station much variety in terms of the type of songs played and their frequency.

The party which is most interested in the selection process and attempts to influence music stations is the record industry. This is because *airplay*, or playing music on radio, is considered to be the most important form of music promotion<sup>3</sup>. Contrary to popular belief, radio stations' interests and record industry interests are not always the same. From an economic point of view, the predominant goal of commercial radio stations is selling airtime to advertisers. Public stations have slightly different goals as they are partly financed by the state budget or from subscription fees but they also have commercial goals. In order to be attractive to advertisers, radio stations need to have high listener interest, especially within their target group. This is an interest which is different from that of the record industry and, hence, the relationship between the two can be described as an "uneasy symbiosis"<sup>4</sup>. The basic goal of different record companies is to convince radio stations that specific songs will lead to higher listener interest.

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<sup>1</sup>Cf. W. Kołodziejczyk and P. Stepka, *Radio internetowe - szanse i wyzwania*, "Studia Medioznawcze" 2006, nr 2 (25), p. 126-151; T. Goban-Klas, *Radiomorfoza w kontekście ewolucji, adaptacji i konwergencji mediów*, "Studia Medioznawcze" 2006, nr 3 (26), p. 16-22; B. Łódzki, *Radio cyfrowe - przyszłość radiofonii w XXI wieku*, "Studia Medioznawcze" 2006, nr 3 (26), p. 139-148.

<sup>2</sup>J. Berland, *Radio Space and Industrial Time: The Case of Music Formats*, (in:) T. Bennett, P. Frith, L. Grossberg, J. Shepherd, G. Turner, *Rock and Popular Music. Politics, Policies, Institutions*, Routledge, London, New York 1993, p. 107.

<sup>3</sup>G. P. Hull, *The Recording Industry*, Routledge, London, New York 2004, p. 185.

<sup>4</sup>J. A. Ahlqvist, G. Fisher, *And the hits just keep on coming: Music programming standardization in commercial radio*, "Poetics" 2000, vol. 27, p. 305.

A key phrase regarding music played on radio is a playlist. Playlists are created regularly, (usually once a week) and they include the top songs to be aired with an outlined frequency of their playing. Songs on playlists can be divided into ones that are played very often (heavy rotation) and often (*medium rotation*)<sup>5</sup>. There isn't a formula for the creation of a playlist, or a delineated number of songs that should be on it. Every station creates it according to their own rules based on the radio station's format or profile. Every format has its own rules as far as repertoire, size, frequency of repetition and entry of new songs. According to Stuart Grundy, in the early 1990s, the BBC Radio 1 playlist included 15 records in group A and 20 in group B (different frequency of airing). At the beginning of every week a computer chose which songs to play at different times of day and days of the week. From the 7 or 8 songs played within half an hour, 4 or 5 were to be from the playlist<sup>6</sup>. For those who decide what to air, most imperative is to avoid those songs which listeners may not like as it may make them change the station to a different one<sup>7</sup>.

The question is, how do radio stations choose what to air and to what extent are they influenced by music companies? For most stations the most crucial criterion is whether a song fits the station's format. If it does, it will be further analysed according to the criteria below. Lathrop and Pettigrew write that radio stations prefer songs which already have a position on the market or which have good potential. Other factors which influence decision makers' choices are:

- the song has been a success on other radio stations;
- the musician/group has had other hit songs or a strong position on the market;
- the record is high on the list of sales;
- listeners call in requesting the song;
- market surveys have indicated that listeners like the song;
- a song is strongly recommended by a music company with which the radio station has good relations<sup>8</sup>.

Other factors which may be taken into consideration are: the artist's position on foreign markets, the radio person's intuition<sup>9</sup>, as well as the song's quality, originality and time of release<sup>10</sup>. Radio station music repertoire choice was extensively researched in the US by Jarl Ahlqvist and Robert Faulkner. They outlined four types of criteria or ways of choosing music in radio stations.

The first is known as a subjective choice of repertoire based on the personal decision of the person responsible for a station's music repertoire. The radio station's goal, in this case, is to play the best music possible and to 'educate' listeners through the promotion of new or unknown songs. Here, imperative is the responsible person's competence and taste in music and of less importance are results of listener preference surveys or pressure from record companies<sup>11</sup>.

The second type is known as objective choice of music repertoire. It bases on the carrying out of large scale listener preference surveys and taking into consideration their results. This approach is conservative when it comes to new records and is not influenced by record companies. Radio stations using this strategy are generally unwilling to take risks with new songs if surveys indicate that listeners expect well known songs. They will also not listen to record companies if listeners say that they don't particularly like the proposed, new songs<sup>12</sup>.

The third approach is known as populist choice of repertoire. The basic goal of the station is to play the music that listeners expect. This approach is not based on surveys but on close contacts between staff and listeners, on sensing listener preferences. In contrast to the subjective strategy, staff's private preferences are not taken into consideration, it only matters what listeners expect.

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<sup>5</sup>T. Lathrop, J. Pettigrew jr, *This Business of Music Marketing and Promotion*, Billboard Books, New York 1999, p. 166.

<sup>6</sup>P. Grundy, *Radio*, (in:) N. York, *The Rock File. Making It in the Music Business*, Oxford University Press, Oxford 1991, p. 230.

<sup>7</sup>R. Shuker, *Understanding Popular Music*, Routledge, London, New York 1994, p. 221.

<sup>8</sup>T. Lathrop, J. Pettigrew jr, op. cit., p. 165-166.

<sup>9</sup>R. Shuker, op. cit., p. 220.

<sup>10</sup>P. Grundy, op. cit., p. 231.

<sup>11</sup>J. A. Ahlqvist, R. Faulkner, *Will This Record Work for US?: Managing Music Formats in Commercial Radio*, "Qualitative Sociology" 2002, vol. 25, no. 2, p. 189-199.

<sup>12</sup>Ibidem, p. 201-202.

Stations using this strategy are also not influenced by record companies if their suggestions are not in tune with what listeners want<sup>13</sup>.

The fourth strategy is a synergy approach. It is based on close cooperation between radio stations and record companies in order to maximise the proposed music value. Radio stations generally promote records which are considered priority to music companies. Due to this, such songs have greater chances to become hits. When this happens, both sides benefit. Often times radio stations, in exchange for their promotion, expect record companies to promote the stations, ie. to grant them the status of media patron for a concert tour of an artist promoted by the station or to award them free tickets for concerts to give away to their listeners. Such close cooperation between the two parties can often be abused<sup>14</sup>. The consequences are that the number of proposed songs is so large that it results in acute competition for airtime. This competition as well as strong co-relation of a song played on radio and its selling have lead, in the past, to corruption or bribery of radio station management in order for them to include certain records on their playlists. This phenomenon was named *payol* in the US and it was outlawed in 1960<sup>15</sup>. However, despite the existence of such regulation in many countries, bribery in some form or another still does take place<sup>16</sup>.

The described above different types of strategies regarding choice of music repertoire do not have to be applied exactly as delineated by the researchers. However, as American studies have shown, there are particular relationships between the music choice strategy and the market in which radio stations exist. It has been proven that radio stations on larger markets have a tendency to standardise their repertoire, to limit staff preference choices and to use surveys in order to determine listener expectations. They are also less likely to air new music or take into consideration suggestions or pressure of record companies<sup>17</sup>.

### **Internet radio station choice of music repertoire**

The basic question which will be discussed in this section is whether there are similar relations between Internet radio stations and music companies as are between them and traditional stations<sup>18</sup>. Generally there are two types of relations that take place.

The first type of scenario is somewhat similar to that of traditional radio stations in which Internet stations play music according to the radio's clearly defined format or profile and the decisions are made by people who run a given radio. Since most Internet stations have a limited number of listeners, narrowed down is also the type of music they air. There are limited numbers of listeners generally due to restricted Internet bandwidth capabilities which also influence advertising interests and, thus, possibility of profit generation. The choice of music repertoire is more narrow and is largely delineated by staff preferences as well as direct communication with listeners instead of such which would attract the largest auditoriums. Of course, there exist Internet radio stations which have gone beyond the semi-professional form of broadcasting. Generally, however, it can be said that most Internet stations use one of the four described above strategies in their choice of music repertoire.

The other type of strategy is completely opposite to traditional and bases on extensive personalisation of the type of music played to meet the tastes of individual listener preferences. This type of strategy is used by Last.fm station and it will be discussed further below as an example of an entirely innovative type of strategy.

Last.fm is a service which allows users to share information about the type of music they listen to with people who run the website and create playlists based on this information. From a technological point of view, Last.fm is a service which is based on a programme that indexes in real

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<sup>13</sup>Ibidem, p. 202-204.

<sup>14</sup>Ibidem, p. 205-207.

<sup>15</sup>M. W. Krasilovsky, P. Shemel, *This business of music. The definitive guide to the music industry*, Billboard Books, New York 2000, p. 407.

<sup>16</sup>Ibidem, p. 411.

<sup>17</sup>J. A. Ahlqvist, G. Fisher, op. cit., p. 320.

<sup>18</sup>Traditional radio stations can also broadcast through the Internet as a complementary offer. Their choice of music repertoire is rather similar to what they transmit normally.

time the music that system users listen to on their PCs or iPods. In practise, every Last.fm user is provided with their own personal 'profile', an Internet site on which recorded are the songs he listened to<sup>19</sup>. Based on this list, created is a 'music tastes map' of each system user. The computer programme compares the tastes of all users and can offer them recommendations based on combined group knowledge of all users as well as indicate people who listen to the same type of music. Aside from recommendations, there is also space for the development of groups or communities centred around a specific artist, type of music, institution, etc. People part of such groups can exchange information and discuss their common interests.

The most interesting part of Last.fm seems to be its Internet radio created on the database of knowledge of its service users. The more songs a user listens to, the more information there is on him and the more precisely can be chosen the station's music repertoire offered. This type of service is revolutionary as it eliminates the position of music editor responsible, in traditional radio stations, for what is aired. The Last.fm service gives its listeners the possibility to influence what is played but it does not follow any of the strategies discussed above. What is available to Last.fm users is not shaped according to subjective, objective, populist or synergy approaches but based on computer generated information from users' past and present preferences.

If a traditional station decided to apply this new approach, it would run into four problems. Firstly, regular stations do not have the capabilities to create such detailed listener profiles. Secondly, they cannot carry out research on such a large scale, due to the large sample size as well as comparative analysis of collected data. Thirdly, traditional stations must define their target group and choose their music repertoire based on an average user profile. Fourthly, they are conscious that a badly selected song will lead people to change the station and they have to be very careful in their choice of new music.

The radio model offered by Last.fm does not have to face these drawback. The system of data collection and analysis allows a thorough profile and categorization of listener preferences on a much larger scale than can be done by traditional stations. Last.fm does not have to cater its repertoire to a large auditorium and can offer its users a personalised selection of songs. What is more, if the analysis system has made a mistake and offered something which the listener does not like, he can easily eliminate a particular song from being available in future. In other words, Last.fm accumulates knowledge that it has about its users, the longer they use the service, the more complete the information it has on its listener preferences. Moreover, this knowledge can also be used by record companies who generally have a lot of trouble predicting people's changes in music tastes. Data that Last.fm possess seems to be a lot more reliable than information collected through traditional market research methods (rarely used by record companies anyway<sup>20</sup>).

The goal of this article is not to go into much detail describing the services offered by Last.fm as they are complex and continually evolving. It is more imperative to show its basic functioning, to differentiate it from traditional radio stations and to show what influence it has on the music market. Aside from the discussed above way of collecting information on listener preferences and choice of music repertoire, Last.fm possesses several other characteristics differentiating it from all others.

The first of these is decentralisation of the system. In traditional radio stations, before music is aired, it needs to go through several stages. According to Paul Hirsh, record companies and media play the role of a filter between artists and listeners. The process begins with a selection of songs from a large group of different music options. The selected ones reach record companies where, again they go through a similar process with producers, sound editors, etc. The chosen ones get a record contract and they are released to the public. Another selection phase takes place in the media, obviously not all songs get to be aired on TV or radio. The music which finally reaches listeners goes through many stages of decision making with record companies pushing their records to

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<sup>19</sup> Author's profile can be found at <http://last.fm/user/netlabels>

<sup>20</sup> Cf. J. Stratton, *What is 'popular music'?*, "The Sociological Review" 1983, vol. 31, no. 2, p. 301 or R. Caves, *Creative Industries*, Harvard University Press, Cambridge MA, London UK 2000, p. 2-3.

increase the probability of commercial success<sup>21</sup>. Hirsh's model is good for the traditional system but cannot be applied to Internet radio. The model proposed by Last.fm eliminates the need to obtain the gatekeepers' approval and the only thing that the artist or song need to gain is the listeners' support (which isn't so easy as well).

Another unique characteristic of Last.fm is the community character of its service. Its users can contact each other, form groups, propose recommendations of their favourite songs as well as create their own broadcasting stations based on their preferred music. Such private stations can be situated on websites, blogs, etc. which means that they can be accessed without using the Last.fm service. In other words, this service users are not solely recipients but can also become creators and have a say in what can be made available to listen to.

Last.fm users can easily share information on the music they listen to by including on their blogs the so-called vidgets<sup>22</sup>, which show, in real time, the song titles which they listen to. This way a crucial need is met, that of differentiating oneself from the others, communicating one's own opinions and preferences, and building an image of having a unique music taste<sup>23</sup>. Music is especially important to young people as it helps them define themselves, find their place within a group of peers or gain status within that group<sup>24</sup>. Many Last.fm users have their own blogs so it seems that this part of the service is something people consider useful.

Another characteristic differentiating Last.fm is the possibility of obtaining information about the music artist of interest, including pictures and videoclips. Obviously, this is not possible through traditional radio stations. This aspect of the service can be treated as another example of the media convergence process, making Last.fm similar to other Internet music portals or music shops. The question is, can Last.fm be considered an Internet radio station? Internet radio is defined as, "transmission and reception of files by the streaming method via the Internet in real time (...) This needs to be differentiated from downloading of files as well as the service of 'listen again' or playing files on request<sup>25</sup>". In view of the definition, we can say that Last.fm possesses the characteristics of Internet radio but with its other services it goes well beyond this type of activity. It would seem proper to call Last.fm a community service devoted to music with an Internet radio function.

All of the presented above characteristics and differences between traditional and Last.fm radios were positive ones. This does not mean, however, that this services does not have any drawbacks. These are:

- lack of mobility – in order to access Last.fm one needs Internet access, with wireless access still being a somewhat limited option it means that most people can only use the service when they have a PC connected to the Web, which significantly limits the number of recipients;
- limited bandwidth – Last.fm, similar to other Internet stations, faces the problem of limited bandwidth which means reception problems if there are too many users at the same time, presently this is less of a problem than in the past;
- algorithm imperfection – regarding compiling music preferences of users, it seems that in general the algorithm system works quite well but there are some exceptions and mistakes can be made regarding some groups of listeners<sup>26</sup>; moreover, if a user is relatively new to

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<sup>21</sup>P. M. Hirsh, *Processing Fads and Fashions: An Organization-Set Analysis of Cultural Industry Systems*, (in:) M. Granovetter, R. Swedberg, *The Sociology of Economic Life*, Westview Press, Boulder, San Francisco, Oxford 1992, p. 363-383.

<sup>22</sup>Interface graphic elements of computer programme users or websites enabling showing on a blog external content i.e. from a different website.

<sup>23</sup>G. Larsen, R. Lawson, P. Todd, *More than a feeling: an exploration into self-symbolic consumption of music*, "European Advances in Consumer Research" 2001, vol. 5, p. 124-9.

<sup>24</sup>P. Frith, *Sociology of Rock*, Constable, London 1978, p. 46.

<sup>25</sup>W. Kołodziejczyk and P. Stepka, *Radio internetowe - szanse i wyzwania*, "Studia Medioznawcze" 2006, nr 2 (25), p. 129.

<sup>26</sup>Research done by author shows that the service may run into problems with choice of songs of less popular artists when the listener has unique music preferences or when the musician has varied repertoire. For example, listener

the service, there are greater chances that the system can offer him something that may not be in tune with his tastes;

- the use of Last.fm requires from the listener greater involvement than when listening to traditional radio stations, he needs to register and install special programming on the computer which monitors the music listened to, this may discourage some people, especially those who do not care much as to what they hear via the radio.

All of the above mentioned drawbacks are technological in character which means that in the future they might cease to exist. However, Last.fm may have difficulty in competing with traditional radios for another reason – listeners often choose a particular radio due to the people, the presenters, that work there. They may like them for the competence, music taste, sense of humour, voice tembre, etc. and may become attached to them. It can even be said that the more author programmes with charismatic presenters a traditional station has, the less threatened it is by Internet radio.

It should also be noted that Last.fm is not the only Internet radio station of the new type. There is also the Pandora service, available in the United States. It is somewhat similar to Last.fm but it differs from it in the way it analyses listener music preferences. This service bases on a set of features such as song melody, rhythm and tempo to catalogue music. It then chooses songs for listeners which have similar characteristics. In contrast to Last.fm, Pandora does not analyse listener behaviour but focuses on songs.

### **Internet radio stations on the on-line music market**

As was mentioned above, one of Last.fm's biggest advantages is that it encourages the creation of communities centred around different genres of music, artists or common interests. Another one of its pluses is that it is working toward becoming a significant player on the market of music files. In order to better understand this, we need to first discuss the topic of music file shops.

A music file shop is an Internet retailer which sells music in digital form (mp3 or wma files). There are several types of such shops, for example the *pay-per-download* (iTunes shop) or the *subscription model* (Rhapsody). The pay-per-download model sells files by item which means that the buyer buys one song (file) at a time and does not have to pay for the entire album. He can then listen to it on his PC or another portable device or, after recording it on CD-R, on a CD player. Prices for such files vary (depending on shop, artist, etc.) but generally are about 1 USD or 1 EUR. In the subscription type of shop, after paying the subscription fee, the consumer obtains access to the shop's entire music offer. As long as the customer pays the fee (in Rhapsody it is 12.99 USD or 14.99 USD, depending on the chosen option), he can listen to any and all of the music available through the service.

The basic difference between the two types of shops is that the pay-per-download service sells songs with which the buyer can do whatever he likes, while the subscription service allows its customers to use the files for a given time (length of paid subscription). In the second case, the files can also be bought but it requires further payment. Such services seem to be more attractive to those who listen to a lot of music while the first type – for those who like 'owning' certain music.

The above two types of services are well developed, they do not solely offer files but also applications necessary to manage this type of music. After its instalment, the customer can buy music from the shop, organize it into files, create his own playlists, record albums, copy files, use *podcasting*<sup>27</sup> as well as several other functions. Thanks to this function, there is greater integration between sale and consumption, the buyer listening to music on his PC is inside the shop at the same time and any time he wishes to, he can buy more music.

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chooses "artists similar to musician X" but X has radically changed his style (first it was jazz, now it's pop). The question is how should Last.fm choose the proposed repertoire?

<sup>27</sup>Podcasting is a technology used to distribute sound files through the Internet. Its characteristic feature is the possibility of subscribing sound files from a source, similarly as with RSP channels. Source: [http://www.podcastalley.com/what\\_is\\_podcast.php](http://www.podcastalley.com/what_is_podcast.php), (from 17.04.2008 r.).

The discussion on the types of Internet music shops was imperative for two reasons. Firstly, Last.fm cooperates with a pay-per-download shop. Last.fm users can access the shop through links available on site in order to make purchases. Presently, Last.fm cooperates with Amazon.com, a major player on the market, selling traditional CDs as well as music files via the pay-per-download system. This trend of cooperation will probably continue in the future and be more developed as long as both sides consider it profitable for them instead of generating competition.

Secondly, Last.fm has made announcements that it is interested in establishing a subscription service. So far, and in contrast to Internet music shops, viewers did not have the possibility of choosing specific songs they wished to hear. They have had the possibility to listen to only 30 second fragments of sample songs<sup>28</sup> or access to some radio stations (also specifically delineated, such as stations which fit their music profile). Presently, Last.fm is working on making available to its users its entire catalogue based on the 'upon request' service<sup>29</sup>. This would mean that this portal would become, aside from being a community Internet radio station, a subscription service as well. This would be a far reaching change as listeners would not just be exposed to music proposed to them but would be able to choose exactly what it is they wish to hear and make their own playlists from Last.fm's entire catalogue. But then again, could Last.fm, after such a dramatic evolution, be still considered a radio station? Perhaps a better description would be 'radio upon request' or 'radio catalogue'?

Finally, we need to evaluate whether Last.fm plans have a chance to be successfully carried out. It does possess some advantages over other subscription services:

- Last.fm already is a trademark, it has a good image and world wide scope;
- It has its loyal users as well as developed communities;
- It is large enough that it can successfully negotiate with record companies regarding copyright laws;
- It can directly cooperate with musicians, presently it works with independent artists and pays them royalties directly, this is also advantageous for musicians who do not wish to sign contracts with music companies and have them make decisions;
- After establishing the subscription service, Last.fm will possess another service which will complement the others (radio – communities – subscriptions), also profitable from an economic point of view.

The discussed above Last.fm development plan may, of course, encounter difficulties. The first could be approval for obtaining commercial gains from selling music songs. Copyright laws are rather complicated and they differ from country to country. The portal might have to possibly enter into numerous negotiations in order to obtain approval for their selling on conditions that would be profitable. For such reasons, for example, the Pandora service discussed above had to limit its scope of activity to only the US.

## Conclusion

What differentiates Last.fm from traditional radio stations, as well as other Internet stations, is the way it chooses music repertoire for its listeners. It collects information on user music preferences and then uses it proposing the type of music that the users listen to most often. This is not done by any other stations and thus makes it a unique radio model. This model can be called a community one as it, on the one hand, offers a personalised music selection and, on the other, encourages the creation of relations between its users. It is revolutionary as it changes the role of

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<sup>28</sup>There are also songs which the listener can download or listen to 'upon request' but they are usually songs by less known artists, distributed by Creative Commons or existing within the public domain.

<sup>29</sup>As we can read on Last.fm's site, this service is presently tested in the US, Great Britain, and Germany. The test allows a user to listen to a song three times for free, after which appears a message to pay a subscription fee (available in the future). There is no exact amount stated yet but it is supposed to be competitive. It is unknown whether this service will be available in Poland. Source:: <http://blog.last.fm/2008/01/23/free-the-music> (from 16.04.2008).

recipients from passive into active ones. The role users play has evolved together with the development of the service and it will continue to do so if the proposed plans of it establishing a subscription service come to life. Then, listeners will be able to create their own playlists or radio stations making use of all of the music available through the service.

We should also take into consideration the future perspectives of such community radio as well as its influence on the entire radio industry. It seems that such type of radio has good potential but it will also run into technological barriers, which were discussed earlier in the text. All in all, it is rather improbable that this type of radio could threaten traditional stations for reasons such as limited mobility or bandwidth. However, when these drawback are overcome the situation could be different, especially since Internet radio has global scope, comes in multiple language versions<sup>30</sup> and is not limited by concessions. It is also competitive as it can reach niche groups of listeners which traditional stations usually ignore as it is unprofitable.

Such Internet radio stations will also influence the music market in general. They have low set up costs, cater to niche recipients and, thus, should support growing differentiation of the market. Last.fm establishing unlimited access to its entire catalogue (subscription service) will be an additional impulse for growth of the market. Musicians will be able to cooperate directly with the portal and people will be offered various promotion products and tools. All of this will make Last.fm a dangerous competitor for record companies. Generally, with time it will be increasingly harder for them to compete with developing Internet services. Growing competition will most likely lead to easier and cheaper access to listeners' music of choice. Any further prognoses need not be made as there is great speed of change as well as complexity of on-going processes on the music market.

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<sup>30</sup>Last.fm is available in Polish. Also, in Poland, there are attempts to set up Internet radio stations where listeners would influence what is played. An example of such service could be the Tuba.fm (by Agora), presently being tested. (<http://www.tuba.fm>). It should be noted that in comparison to Last.fm, the Tuba.fm is much more restricted as far as listener influence on what is broadcasted.