

The Role People Play in Adolescents' Music Information Acquisition

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ABSTRACT

This paper reports on a study on the role people play in music information provision for adolescents. Using a qualitative approach to social network analysis, this study focuses on the ways in which music information is shared across adolescents' networks. Preliminary findings suggest that adolescents primarily discover new music through close friends whose social network is significantly different from theirs (e.g., those who attend a different school). They also indicate that music opinion leaders (i.e., those who are most influential in their social network in terms of music) are perceived as (1) good communicators, who are (2) highly invested in music, and who are (3) willing to share the information with their friends. These findings provide developers with ideas for the improvement of social filtering algorithms used in music recommender systems.

Categories and Subject Descriptors

H.1.2. [Models and Principles]: User/Machine Systems---human factors; H.5.5. [Information Interfaces and Presentation]: Sound and Music Computing---Systems.

General Terms

Human Factors.

Keywords

Social networks, music information behavior, adolescents, music recommender systems, user studies.

1. INTRODUCTION

For many years, it has been common practice for people, especially adolescents, to share music. While yesterday's young adults exchanged CDs and tapes, or prepared music compilations for one another, today's adolescents share music files through peer-to-peer file sharing systems and push music information to their friends using instant messaging or social networking sites. If the media have changed, the motivations remain unchanged: music sharing strengthens social bonds [1] and represents one of the most efficient ways of discovering new music [2, 3]. Indeed, acting as filters between music and their friends, people provide highly personalized recommendations, specially tailored to their friends' tastes.

Considering the effectiveness of people as sources of music recommendations, it comes with no surprise that when developers tried to automate the process of recommending music, many decided to use social filtering. As a matter of fact, although a few successful music recommender systems use content-based filtering (e.g. *Pandora*), most systems exploit feedback from other users to

offer personalized recommendations (e.g. *Last.fm*). What makes each of these systems unique is the type of information they use to generate recommendations: implicit feedback (e.g., listening habits, purchases) and/or explicit feedback (e.g., user ratings, lists of favorite artists) [4].

By providing a rich description of the role people play in music information acquisition in adolescents' daily lives, this study contributes to our understanding of the music information behavior of young adults and highlights potential avenues for the development of more efficient collaborative filtering algorithms for music recommender systems.

2. RELATED WORK

2.1 People as Information Providers

Research performed by information scientists has shown that people (relatives, friends, colleagues, and other acquaintances) play a primary role in information provision. This phenomenon seems to be particularly prevalent in everyday life contexts [6-8], for instance to acquire hobby-, health- or job-related information. People rely on their social network for information or recommendations for a variety of reasons. One's close personal network is usually considered the most accessible source of information. Family and close friends are generally close by and willing to share information, both spontaneously and on demand [9]. Additionally, people appreciate the relevance of the information they acquire this way. By asking people who know them well and whom they trust and consider to have good judgment, they obtain information that has been filtered especially for them [10]. Information sharing between individuals is also socially and emotionally motivated: (1) it helps build and maintain relationships, and (2) sharing information is a gratifying activity [11].

The few studies that have been conducted on music information behavior in everyday life revealed that people play perhaps an even more important role than in other contexts. Studies by Laplante [2] and Tepper & Hargittai [12] showed that one's social network represent the most important source of music discovery. Similarly, Sinha & Swearingen [13], who compared music recommendations provided by friends and online systems, found that the former consistently performed better than the latter from the user's perspective.

2.2 Music and Identity

If people rely so extensively on their social network to discover new music, it might be because of the close link that exists between music and identity. Research in music sociology and psychology has long established that music played a significant role in the formation of one's identity, particularly in adolescence [14, 15]. Young people use music as a social badge which communicates who they are (or who they wish they were) individually and as a group [16]. Indeed, adolescents' music tastes develop in a highly social environment: their music preferences are usually similar to

those of their friends or of people they wish to emulate. Thus, it is common practice for adolescents to scan the music collections of their most estimated friends to check for new suggestions, as well as to look at the collections of newcomers or potential love interests to ensure that they “fit” [15]. This also explains why sub-cultures, by which groups of adolescents often define themselves and to which opinions, attitudes and values are associated, usually form around music genres [16].

As a matter of fact, adolescents do not only use music tastes to express who they are but also to judge their peers. Hence, most consider that there are social repercussions associated with the fact of exposing their music preferences [15]. For instance, research revealed that those who express a preference for music genres that are considered prestigious by their peers are more likely to be perceived positively [14]. In the same way, those who demonstrate a high level of knowledge of popular music were found to have more chances of being perceived as popular by their peers [17]: music being one of the most important conversation topics among adolescents, one can assume that good music knowledge facilitates social interactions with others.

Considering that adolescents use music preferences to make inferences about others, it comes with no surprise that most seek to “perform” through their music tastes: the values and attitudes associated with the music genres they publicly admit liking must correspond to what they want to convey about themselves [14]. And the advent of social networking sites such as *MySpace* or *Facebook*, which allow them to list their interests in terms of music, cinema, television series and books on the social network profile, has emphasized this phenomenon [18].

3. METHODOLOGY

Qualitative methodologies have dominated the research on everyday life information behavior, with interviews, diaries and observation being the most common data collection methods. These methods have proven to be effective in providing thick descriptions of the phenomenon from the user’s perspective and in capturing the richness of the context into which it occurs. For this project, a qualitative approach to social network analysis has been adopted. Social network analysis (SNA) focuses on “relationships among social entities, and on the patterns and implications of these relationships,” [19] in particular on the flow of resources (e.g., information) among actors. It provides a set of techniques and theoretical concepts and properties researchers can use to analyze and describe social networks. First developed and employed by sociologists, it is now used in many other disciplines, including information science [20].

For this study, an egocentric approach to social networks has been adopted. This approach consists in examining the social network of focal persons (called “egos”). Egos are asked to name the persons which whom they maintain relationships (called “alters”). Egos are then asked to provide information about their ties to alters as well as about ties between alters in their social network [19]. Researchers also commonly ask proxy reports about alters [21].

3.1 Participants

This study is designed to run from May 2010 to April 2011 with the expectation of recruiting 25 participants. The population studied is composed of French-speaking adolescents (15-18 year-old) living in the Quebec province (Canada). This paper presents the preliminary findings derived from the six interviews conducted to date, which represent a total of 486 minutes of recording. Participants were selected following the maximum variation sampling strategy as described in [22]. Among the six participants,

four were female. At the time of the interview, five were full-time high-school students and one was a full-time college student.

3.2 Data Collection and Analysis

Data are collected through in-depth interviews. Social network theory, together with a review of related works on everyday life information behavior and on music and identity, provided a useful theoretical background for the development of the data collection instrument. The resulting instrument is composed of an adaptation of the social network-mapping tool developed by Todd and described in [23], followed by a traditional interview schedule. The social network map is filled by the participant with the help of the researcher. To elicit the names to be included on the map, participants are asked to think about how they could group people around them (e.g., school, relatives, neighbors), to note these groups on the map, and then to name the persons they feel close to in each group (the alters). Participants are invited to place alters on the map, using the concentric circles to indicate the strength of their relationship with each of them, as well as to draw lines to indicate relationships between alters (the strength of the tie being represented by the thickness of the line). Participants are then asked to add on the map any other person with whom they share music information. They are asked (1) to draw a circle around those with whom they discuss music most often, (2) to mark with an asterisk the persons whom they trust the most for music recommendations, and (3) to draw a box around the name of those with whom they maintain a relationship essentially based on music (see figure 1 for an example of a social network map filled by a participant). Participants are requested to provide information about each alter and their relationship with them, including information about their music tastes, the nature of the music information they exchange with them if any, and the influence they have on their own music preferences and on those of their group. The interviews also include general questions on participants’ music tastes and listening habits.

All interviews are recorded. Both the interview and the resulting social network map are transcribed into computer files. Interviews are analyzed using NVivo by QSR, a software package designed specifically for the encoding and analysis of qualitative data.

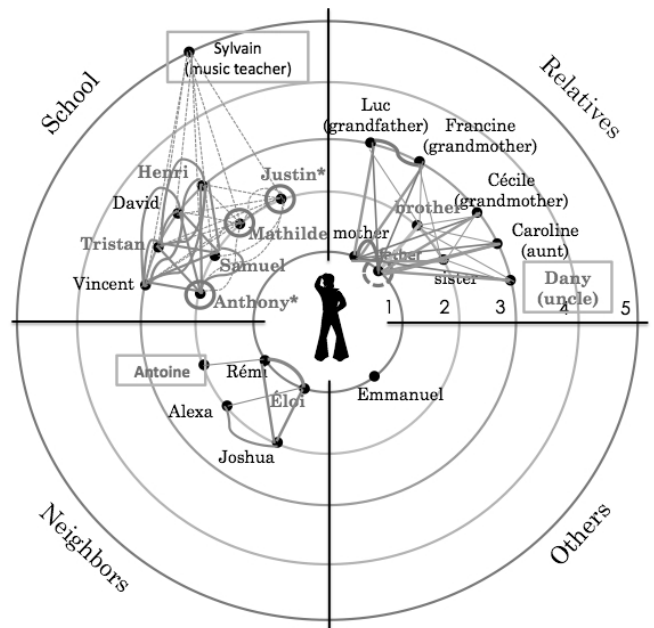


Figure 1. Example of a participant’s social network map

4. FINDINGS

4.1 The Influence of Others on Music Tastes

4.1.1 Recent Changes in Music Tastes

In the introduction of the interviews, participants were asked if their music tastes had changed significantly in the last three years. Perhaps unsurprisingly considering the fact that adolescence is a period characterized by changes, all affirmed that their music tastes had greatly evolved. But the most interesting aspect of their answers resided in the reasons they gave to explain it: all were related to changes in their social network. One mentioned that she had discovered a new music genre because of her new boyfriend; three explained that they had changed school and, as a result, had made new friends through which they had discovered new music (“You start high school and the people, what they make you listen to, it’s not the same type of music. And then, by listening to this music, you start liking it too.”); and two were just not very interested in music before, but because it was such an important topic of discussion at school, music had slowly taken a more important place in their lives.

4.1.2 Opinion Leaders

“Opinion leaders” are defined as individuals who have developed an expertise in a specific domain. Because of this expertise, people are more likely to turn to them for information or recommendations, which makes them influential in their environment. During the interviews, participants were asked to identify who in their social network exerted more influence on others in terms of music. Three self-identified (two girls and one boy) as being an opinion leader for music in their group. Music opinion leaders were generally not considered as being influential in other domains. Indeed, in every densely knit group, each member seems to have his/her domain of influence, whether it is music, fashion, movies, television series or books. The analysis revealed that music opinion leaders were perceived as (1) good communicators, who are (2) highly invested in music, and who are (3) willing to share the information with their friends. Their desire to have unique knowledge and to be a resource person for others leads them to constantly look for new music. Hence, describing an influential friend, one participant says: “[Anthony] just got a satellite radio, so he picks up loads of stations. When they are playing a tune, he sends you the title. And then, he takes notes of everything. And when he finds a good song, he gives it to me.” However, opinion leadership is only possible if one is surrounded by people who have similar music tastes. One participant, whose social network was mostly composed of heterophilous relationships, particularly in terms of music preferences, explained that her tastes were too unusual for an adolescent and therefore very unlikely to meet her friends’ tastes. As a result, she did not feel it was relevant to share any music information with them.

4.2 The Strength of Weak Ties?

In a highly cited journal article, Granovetter proposed in 1973 the Strength of Weak Ties [24], a theory that has proven to be particularly useful to understand the role people play in information provision. According to this theory, weak ties (acquaintances) would be more instrumental than strong ties (friends and family) to obtain new information because of the high degree of overlap that generally exists between the social networks of strong ties. In other words, my close friends, who generally know the same people I know, are more likely to have access to information to which I also have access; whereas acquaintances, who usually have a social network significantly different from mine, are more likely to have access to different information [25]. Following this theory, we could expect that weak ties would be more useful to discover new

music. However, participants’ accounts suggest that weak ties might not be as instrumental in music discovery as they are in other contexts, such as when people are looking for a job.

4.2.1 The Role of Weak Ties

In some occasions, participants’ accounts fit the theory perfectly. Indeed, two participants identified a few weak ties as being important sources of music discovery for them. In these cases, the weak ties were people who were much older than they were (their parents’ age) and their relationship with them was mostly based on music (i.e., music is their main conversation topic when they meet). They were considered by participants as experts in music, sometimes for a specific music genre: one had extensive knowledge in classical music, two had very large music collections, another was an amateur musician who loved blues, and one was a music teacher specialized in jazz (the last two are represented in Figure 1 as Dany and Sylvain). Music information mostly flowed in one direction: while they admit being influenced by these people, they did not consider they were influential for them.

Weak ties, however, were not considered instrumental by the four other participants for the acquisition of music information. A possible explanation would be that music preferences are considered too personal and subjective to trust recommendations from someone one does not know well. What is more, considering that adolescents are conscious of being judged on their music preferences, following advices from weak ties might be considered too risky from a social point of view. But Granovetter’s theory nevertheless provided an interesting theoretical framework to understand who in their network were more likely to represent a good source for discovering new music. According to the theory of the Strength of Weak Ties, weak ties are crucial in information provision because the overlap between their social network and the Ego’s social network is less important than it is between strong ties. Although the main sources of music discovery were not weak ties, the strong ties from whom they were more likely to seek recommendations were almost always those whose social network were more different from theirs, mostly those who were going to a different school. For instance, one participant explained making new discoveries mainly through her friends with whom she skies “because we don’t hang out with the same gang at school.”

Exchanging music information with weaker ties also seemed to be socially motivated. Indeed, music seems to be to adolescents what weather is to adults: the default conversation topic. Hence, one participant reported that “at school, everybody has a iPod. So you’re there, during lunchtime, and everybody has earplugs, so it’s easy to stop and say ‘hey, what tunes do you have?’” Music can also be at the origin of a relationship. For instance, one participant reports having realized through *Facebook* that some people she did not know well had music tastes that were similar to hers. This realization had led her to engage in conversations about music with them and, as a result, to become closer to them.

4.2.2 The Role of Strong Ties

A lesser-known aspect of Granovetter’s theory concerns the value of strong ties in information provision. According to the theory, “strong ties have greater motivation to be of assistance and are typically more easily available” [25]. They also have greater influence and more credibility. This corresponds to the accounts provided by our participants. Strong ties, including those with whom they share most of their social network, play a crucial but different role in music information acquisition than weaker ties do. In addition to the role of strong ties in music discovery, it emerges from the analysis that music information was shared with strong ties also for two other reasons: (1) to maintain or reinforce a relationship, and (2) to legitimate our tastes. For instance, one

participant describes that she shares music (or lyrics) with her friends to show that she understands how they feel. Thus, depending on what they confide in her, she suggests music she believes will help them go through what they are experiencing. Another participant reports that when he discovers something new, he asks his best friend to listen to it so they can talk about it, which, he will weakly admit, helps him form an opinion about the music.

And which are the strong ties through which music information is exchanged? Of course, close friends were often mentioned. These close friends were usually those who have music tastes that are similar to theirs and who are perceived as having good judgment in terms of music (i.e., those who have good music knowledge and are considered to be "independent thinkers"). Hence, one participant reported trusting a friend who is a musician and explained: "There are people, you know they are into music, so it's really something they know well. So when they talk, you know they don't give you titles just to give you titles." The same participant later added that she did not trust one of her best friends, although they had similar music tastes: "[She] doesn't want to stand out. She does what everybody else does. She won't influence you, you're always the one who influences her. You tell her you like something, the day after, she will have downloaded it." If close friends were pivotal in the acquisition of music information, older siblings and even parents were too. As a matter of fact, all participants reported being influenced by at least one of their parents in terms of music. One participant explained: "The songs you grew up with, whether you want it or not, you always end up listening to them again." Another said: "I've heard [their music] so many times that I listen to it and I like it really." This supports the findings of music sociologists who found that familiarity often leads to appreciation [26].

5. CONCLUSION

Considering the small size of the sample, the results presented here should be interpreted carefully. However, by providing rich descriptions of the ways in which music is shared within the social networks of some adolescents, this study provides a first glance at the role people play in music information acquisition in adolescence, while shedding some light on the process through which young adults discover new music through friends, relatives or other acquaintances. Results suggest that further research on the characteristics of the structure and the ties of which social networks are composed, and the impact of these characteristics on the flow of music information could help inform the design of music recommender systems.

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