

Peer to Peer Music Consumption

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The objective of this essay is to provide a solid basis to analyze Peer to Peer (P2P) music consumption. The essay is based on the studies I made at Nokia Research Center in 2004-05¹. My aim was already then to make a publication about this fascinating topic, but unfortunately I did not have enough energy to prepare a publishable paper. This essay is a slightly edited version of the introductory part of a longer unpublished paper. The original paper also includes a mathematical model to analyze the benefits and business potential of music consumption. However, because my intention still is to develop the model and make a publication, I will leave the mathematical part out of this essay.

Peer to peer

There are various definitions for Peer to Peer (P2P), often based on technical terms, like "Peer-to-peer means that every computer is equal to each other computer". Instead, here we apply the following, human definition:

Peer to peer: an ideology in which peers interact with each other by offering their own resources for other peers to achieve common goals.
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We may go even deeper and define *peer* as a person who has equal standing with another or others, as in rank, class, or age, and *ideology* as the body of ideas reflecting the social needs and aspirations of an individual, group, class, or culture². The main point is that peer to peer is primarily a way of thinking, rather than a technology. Particularly, if we take a technology developed for a peer to peer purpose (in the sense of the above definition), and then try to apply it in a context inconsistent with the P2P ideology, the result cannot anymore be peer to peer, but something else; likely a total failure.

According to above definition, in a P2P system peers have an autonomous and important role; they cannot just be passive consumers of services. Furthermore, peers have to actively interact with other peers, not just with service or content providers. Finally, peers shall have their own resources and some level of readiness to share some of those resources with other peers. The resources include not only technical capabilities, like memory and processing power, but also personal capabilities like opinions, skills and time. Music is characteristic example in which any of these capabilities can be shared to achieve common goals.

¹All opinions presented in this essay are my own and are not in any way related to my former or current employer.

²Definitions for *peer* and *ideology* from <http://dictionary.reference.com/>, whereas *peer to peer* definition is my own.

Music

What is the meaning of music, or more specifically, what is the evolutionary reason for music as a human activity? Without going too deeply into this intricate issue, we may notice that during the long history of music (surely 37000 years, perhaps even 150 000 years according to Eerola, 2005), great majority of music has been performed within a group of people, with the obvious aim to strengthen the ties within a community. The primary role of music has not been to obtain amusement by listening music alone. We may argue that the strong feelings provoked by music dates from those ages when coherent community was prerequisite of life, and music was one important way to achieve that goal. Thus, sharing is the essence of music of experience, both sharing between the performer and listeners, and between listeners. Note that each listener may also have an active role in enhancing the experience of other listeners, and thus significantly increase the value obtained from the music experience.

When the sharing of music experience with friends is done by using technical tools, it is important that the piece of music is immediately available for everyone. As Ian Condry (2004) has argued: "If asked directly by a friend to share music, sharing is the only reasonable thing to do". That is the fundamental nature of group forming in general, particularly when it is related to music experience. In brief, the very nature of music is to be shared.

As a strong contrast to this tradition of sharing, music industries approach is to treat music as a packetized product sold separately to each person for quick consumption. Further, music industry claims that if someone shares the real content inside the package with others, that is a theft and the liable person shall be punished.

However, the real power of music is not in the package created by industry but in our common evolution and in the content created by composers and artists. Moreover, even the creation of novel music does not happen in isolation but it is always based on a long common tradition. Thus, great majority of the value of any music stems from our common history, smaller but still significant part is due to individual creators, and even smaller part is related to the package provided by music industry. Why then has the music industry so strong position in our music consumption? The reason is related to copyrights.

Copyright

There are three main viewpoints to copyrights: legal, utilitarian, and moral. To have a fresher look at the issue, let us take an example from another field. Let us assume that someone consumes his time and exploits his creativity to develop a new game played with ordinary playing cards. What shall be the rights of the game developer? Shall the developer have the right to forbid:

- playing the game by using ordinary cards,
- developing a computer game based on the rules of the game,
- using the rules of the game in gambling,
- publishing the rules of the game in a book, or
- using the rules of the game as a part of a more complicated game?

You may consider these questions yourself from different viewpoints, and then compare those opinions to the situation with music. Of course, someone may argue that music is different from card games. Maybe so, but in which way? Also card games tighten communities, provide enjoyment, and the development of a new game requires, at least, some creativity.

What does the law say about these rights? I do not know the exact answer; there might be some possibility to restrict others doing business, but hardly playing the game. As a general

remark, even in US with extensive copyright laws, copyright "has never accorded the copyright owner complete control over all possible uses of his work" as stated by the Supreme Court of US [from Lessig 2004, p. 78]. In general, what the legal right is in a particular society, at particular time and related to a particular issue, is a matter of common agreement. However, the agreement is usually not an arbitrary one, but is justified by some other viewpoint, utilitarian, moral or something else.

The justification for a law is often based on utilitarian viewpoint. For instance, we may ask what kind of protection would generate the best variety of new card games to be played in a society? The answer most likely is an approach in which playing games with ordinary cards is totally free. Although the issue is less clear for card games played with computer, very strict copyright rules hardly are useful from utilitarian viewpoint.

Then there is the moral viewpoint, usually presented from the viewpoint of the initial creator of a novel thing. It also seems that from moral viewpoint different activities are appreciated differently; note particularly that patents provide much shorter protection than copyrights. Why do the descendants or a company have rights to a song long after the decease of the actual composer or artist while the developer of a new medicine will lost her rights after 20 years, or so?

In moral sense, would it be right for the creator to get compensation whenever someone plays the game he has invented? Hardly. Apparently there is no universal moral rule saying that a creator of an intangible invention, card game, song, novel, or whatsoever, is entitled to dictate how others shall use the thing — unless others try to make business out of the invention. Here is the core of the whole issue: only the business aspect seems to be able to raise the issue of copyrights. When there is no organized business, there is no real need for the whole concept of copyright.

The complexity of the issue (what is right and in which sense) provides a good opportunity for some stakeholders to offer simple, attractive statements, such as, P2P file sharing is robbery, and endangers the living of poor artists. Usually the simplest answers are presented in the moral space, whereas the motivation of those who offer the answers is located in the business space. Moral justification is presented just because it is easier to market. "We want to protect forever our current business model ", does not sound as good as "we want to protect the rights of the artists".

If you develop a card game just for fun, the whole question of copyrights and business opportunity will likely not come into your mind. Only when the boundary between fun and business is crossed, the questions of rights emerge. The first time when this happened was when book printing became feasible as a relatively small business, that is, in the beginning of 18th century when British Parliament acted the first copyright act (see chapter 6 in Lessig, 2004). Already then the main dispute was not between the creators of the content and consumers, but between established players and newcomers in a business sector

The target of the established players typically is to form a permanent situation in which a small number of players dominate the business area, e.g., book publishing or radio broadcasting (see pages 194-199 in Lessig, 2004). Only the largest enterprises can afford and manage expensive and complex systems needed for copyright protection. Then the large companies have very strong bargaining position with artists and consumers. Only the most successful artists have a well-matched position with large companies, while great majority of artists have to sell their rights with terms dictated by music industry. In a situation in which great number of intermediate players are active in the field the position of middle-level artist would likely be better.

If you still are convinced that P2P is ruining the whole music business and damaging the living of artists, you may, for instance, read the article by M. Geist (2005). His main conclusion is:

"Given the tens of millions of dollars that the Canadian government spends annually to support the creation of Canadian music, it is apparent that the relative impact of lost royalties due to file-sharing pales by comparison."

There are other studies that strongly support the statement that file sharing has had quite small effect on the total sales of music, and even smaller effect on the living of artists, see e.g., Obenholzer and Strumpf, 2004. Still music business needs fair rules to create a healthy environment, but that does not mean that the current business models shall be protected for ever, for instance, by extending the term and scope of copyrights whenever music industry wants. What we need is model in which each participant has an appropriate role and will be treated fairly.

Business

The whole concept of P2P business is very problematic, because peer to peer is partly a counter action to commercialization, and any P2P business easily becomes part of the grand process of commercialization. A too prominent business aspect will likely destroy any P2P service. One approach could be that business is based on what is already commercial, like providing connectivity service. The tolerance for any new pricing tag will be extremely low in any system that is considered as P2P (at least in the sense of the definition proposed in the beginning of this essay). The main exception is a case where the money goes directly to artists.

Finally, the pervasive commercialization of all creativity is hardly advantageous for the whole society in any utilitarian or moral sense, although it might be advantageous in the sense of gross national product. Still artists may have a dream to get recognition, to become famous and rich. However, which one of these is the most important goal is not obvious. Commercialization means the tendency to measure the value of anything or anyone directly by money, that is, to equalize recognition, fame and richness (this is blatantly clear in major sports in US). However, psychologically these still are different matters, and should be treated separately.

Surely, the music industry needs to adapt to the new situation of easy transmission and storing of digital content. Moreover, business requires common rules also related to copyrights, but that shall not mean that our everyday life will be dictated by the needs of one industry sector. Let us remember that music industry wants primarily to protect the package created by them and use the package mainly for marketing purposes.

But what is the value of the package, for instance, building "band as a brand"³ and marketing the brand, not the band, even less the music? It must serve some purpose even for consumers. One of the main problems related to music consumption is the searching of fitting music from the huge variety of music. Music industry may facilitate the search by

- making preliminary selection of potential new music,
- refining the original music to more professional level,
- categorizing music and finding the most likely consumers for each category,
- lowering the threshold to consume new music products by marketing, and
- distributing and delivering the product to consumers.

The most expensive phases are the last two: according to Premkumar (2003), retail and distribution represents 42%, and marketing 20% of total cost of a CD. The artist's share is

³ http://americansongbook.blogs.com/mmm/2004/09/your_band_as_a_.html

typically 12%. According to a Finnish study (Tilastokeskus, 2000), in Finland the direct royalty represents 3.8% whereas Teosto⁴ represents 5.8% of the total price of a CD.

It is evident that P2P have a potential to significantly affect the music distribution and delivery. Although it is somewhat less clear what the effect will be in other phases of music production, we can make some speculations:

- Selection of music is evidently a very human task and thus not very well systemizable. Selection capability is hardly limited to the personnel of music industry, but might occur in P2P networks as well (or even better).
- Refining and productizing of music seems to be the strongest area for an industry. However, the rapid advance of digital technology has made it possible for small companies, or even individuals, to approach professional level. P2P networks may play role even in this area, particularly in case of less popular music.
- There is a lot of activity in the categorizing of music and facilitating the search of music based on personal preferences. This is an obvious area in which web services and P2P networks can have a noticeable role.
- Branding and marketing seems to be the core of music business, but it also is very expensive. This might be the area in which music industry may be ready to exploit the possibilities of P2P networks, though they definitely want to preserve total control of brands with themselves.

Then there are goals that the music industry has largely ignored but that still are essential for the music experience, like:

- improving the connection between artists and music consumers, and
- improving the sharing experience between listeners of the same music.

Consequently, the most promising parts of music business and experience for P2P environment are:

1. Distribution
2. Marketing
3. Selection of new music items based on personal preferences
4. Enhancing the connections between artists and listeners

If and when all these aspects can be combined, the results could be beneficial both for artists and consumers, provide some business potential for network operators, and finally be acceptable for music industry.

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