

P2P, “Legal” Downloading Sites and the Future of Music Distribution

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Abstract: The Internet has undoubtedly changed the prerequisites for global music distribution once and for all. After years of scepticism, clinging to old business models and hunting pirates in P2P networks, the record industry has begun to embrace the new channel for marketing and distribution of cultural content. But what do we know about music consumption on P2P networks? Does it coincide with the variety of cultural content in traditional media channels? This paper describes the differences in cultural content on P2P networks, in live concerts and traditional broadcast media based on comprehensive data on theoretical range of choice, airplays and music requests in P2P services. The study also describes some of the business model changes that have taken place. The study concludes that legal download services might, in the long run, reduce the present dominance of the big five major record companies.

1. Introduction

The mix of music available via different media channels has been the subject of a lively discussion over the past few years. Some observers claim that the range of choice in traditional broadcast media does not reflect the audience's desires. Voices from both commercial and public service radio claim, however, that they actually air the “correct” mix and base their postulate on detailed polls and charts.

On the other hand, executives of services monitoring traffic on P2P networks and organisations working for diversity in media claim that record companies and radio networks actually “teach” the audience to listen to and to buy certain types of music. Therefore, their audience research polls, reinforced by commercials on TV and radio, become self-fulfilling prophecies. Somewhat paradoxical, record companies and motion picture companies are the most important customers for services monitoring P2P activity.

Simultaneously, the traditional CD singles market is collapsing due to widely spread illegal P2P copying and cherry picking via legal services. In October 2003 the turnover of these legal services began to outrival CD single sales both in terms of units and money [1].

At the time of writing, the number of downloadable legal music titles via Internet is in the region of some hundreds of thousands and is rapidly growing with the help of Apple, Roxio (Napster 2.0), Wal-Mart, and others. In other words, companies by tradition not associated with content. The number of illegal titles available via P2P networks is difficult to monitor but is in the region of tens of millions, according to IFPI.

At the same time, the concert and touring business has experienced booming ticket sales and an overall increased interest in live music over the past few years [2]. This trend has been documented in numerous articles in both US and UK based music trade magazines.

A second trend is the accelerating production of CD titles despite alarming sales reports from major record company executives. Affordable digital recording equipment has lowered the threshold for musicians to produce high-quality recordings and the strategy on

a few “big” acts per major record company has most likely led to ever more rejected demos. Many new small record companies started by artists and bands use clubs and the Internet as primary market channels. P2P activities seem to attract rather than frighten away SMEs.

Little has been written about the differences between repertoires available through concerts, broadcast media, and files requested over the Internet, or about the plausible reasons for possible discrepancies. The evidence in this paper shows some interesting differences that can be related to producer driven vs. emerging consumer driven markets.

2. Objectives

This paper describes differences in terms of output (songs) between concerts, broadcast media, files requested via P2P networks, and “legal” downloading sites. How does the mix of songs overlap or differ between these channels and audiences and if it does, why?

Are there any trends that can be observed over the past years? Are there any indications that the increased use of the Internet and of file-sharing clients has served to change the traditional marketing role of radio as regards concerts? Important questions for content creators as well as for broadcasted media.

Where do we find really new business models – in SMEs activities in the P2P environment or among the slowly emerging legal downloading sites approved by major producers and rights holders?

3. Methodology

The study uses four extensive statistics sources:

A database with hundreds of thousands requests for specific music files in 2003 from a US-based P2P network. At time of writing it was not possible to gain access to similar data gathered in Europe. In Sweden, ISPs – both commercial and university networks – primarily want to move bits and bytes and not analyze content, for two reasons: (a) it is not clear if such monitoring would be a violation of the law concerning telecommunications and also be considered as an intrusion on personal integrity. (b) ISPs don’t want to be held responsible for activities – e.g. copyright infringements – done by customers/users.

Second, reports from STIM, the Swedish Performing Rights Society, on works (songs) performed at Swedish concert venues during the last three years. Thirdly, comprehensive airplay reports from STIM on works aired by seven national radio channels in Sweden over the past eleven years. Fourthly, a complete copy of the fast growing Grammfonarkivet database of the Swedish Public Service Radio with more than 2.4 million recordings from the last 110 years, serving as a blueprint for theoretical range of choice. All databases (except for P2P) uses a common identifier enabling extensive matching procedures.

The Swedish concert market and the de-regulated radio market have been used as a case study to describe trends within and between these two channels for musical content. The P2P database has been used to illustrate the characteristics of music searches on P2P services. What kind of music is requested and can any patterns be identified?

Both domestic and foreign news articles, research papers, and other literature related to this subject have been studied in support of global predictions regarding this fast moving arena. Professionals in the touring business as well as concert promoters have been interviewed in order to gather anecdotal evidence.

4. Observations

4.1. Traditional Business Model for Music Distribution

For composers and artists, record label contracts have been more or less the only way to get a song recorded, “packaged”, marketed, and sold to consumers. In other words, record companies have to a great extent been able to control the flow of new music to the market.

For example, certain TV and radio channels have been given exclusive rights to “break” carefully chosen single tracks. This has been followed by thoroughly planned album releases, often with large marketing budgets. In other words, trying to sell songs twice, first as singles – during a limited period of high interest and high media penetration – and then as albums. This is an intricate multi level business model based on selling tangible products via a hierarchy of distributors and retailers.

In many cases the focus has been to build a few “big” artists selling records in many different national markets [3]. Radio and TV airplays have been the natural shop window and album sales the economic backbone for record companies.

Concerts have been regarded as little more than a tool for selling a few more albums and maintaining and cultivating popularity among loyal fans.

4.2. New Business Models for Music Distribution

Major record companies still try to control the flow and maintain the interest in their products. But the prerequisites in the market have changed radically over the past decade.

1. The increasing range of potential media channels has caused a clear segmentation of the audience, making it more expensive to reach a big audience via traditional marketing. Nevertheless, radio and TV are still important marketing channels.
2. The more or less collapsing singles market (in terms of profits) where piracy and cherry picking via legal services are considerable competitors to physical singles. As mentioned earlier, legal sales of digital music files outperformed single sales both in numbers and money during 2003.
3. The increasing number of artist-owned record companies. This is certainly to a degree a reaction to difficulties in being signed or in some cases a conscious choice of seeking success in a smaller scale business, with the greater ability to keep most of the profits. According to Statistic’s Sweden, the central government authority for official statistics, the number of record companies and music publishing houses has more than doubled in Sweden during the last ten years.
4. Affordable digital recording equipment has lowered the barrier for musicians to produce soundtracks with high technical quality without access to multimillion-dollar recording studios. This is most likely a fact contributing to the high number of small record companies and album releases.

Changing prerequisites have forced the traditional record industry to reconsider its business models. Many record companies try to reduce their reliance on mechanical revenues, basically CD sales, as the market declines. Public performances, concert revenues, the use of songs in audiovisual works such as advertisements, television programmes, films and computer games are becoming increasingly important sources of income.

An obvious example is the interim result presented by the EMI Group in November 2003. The turnover for the Music Publishing division was only 21 percent of the EMI Group but it generated 65 percent of the profits [4].

Reluctantly, record companies have embraced legal on-line sales of digital music files. It is a milestone considering that this is all about selling intangible products far removed from the traditional physical value chain involving tangible products such as CDs. The major record companies' own alternatives have enjoyed little large-scale success so far.

One example is Sony’s and Universal’s joint music service PressPlay. In May 2003, it was sold to Roxio, the leading maker of software for CD and DVD recorders, less than two years after PressPlay’s launch. The year before, Roxio had bought all the rights to the Napster brand and technology. This time the seller was the record company BMG that had tried to create a legal subscription service after the bankruptcy of pioneering Napster.

At the time of writing (June 2004), the leading service selling music files online is not a part of the traditional content industry. With iTunes, Apple succeeded in uniting record companies on a common price model, 99 cent apiece, regardless of size and catalogue. The record companies' share of each sold file is 47 cents, excluding artist and composer royalties [5].

According to Apple, over 50 million files were been sold between April 2003 and March 2004 using a proprietary file format bound to the portable device iPod and the software iTunes. The present rate is 2,5 million files a week [6].

Apple's initiative of selling single digital music files has been followed by, e.g., WalMart, MusicMatch and Roxio's Napster 2.0. The latter service is based on a subscription model with an option to buy single music files for 99 cent each.

Two pending giant music stores will challenge Apple's dominant position of supplying both content and hardware (iPod). Sony, the consumer electronics manufacturer, which wons a major record company, and Microsoft, the dominant PC platform builder, whose Windows Media Audio (WMA) standard is already supported by hundreds of devices and the default file format of many existing legal downloading services.

The major labels' new business models and approaches in the new environment seem to be focused on a decreasing number of "safe" mega stars, combined with fighting peer-to-peer piracy. At the same time, there is an emerging strategy to sell digital music files via legal sites, both proprietary and second party (e.g., iTunes, Wal-Mart, and Napster 2.0).

Smaller, often artist-owned record companies have focused on being profitable on a smaller scale. Niche music, marketing via websites, touring, and marketing through concert promoters are the main means of retaining most of the profits. In other words, a shift from big scale producer-led marketing of physical products to more consumer-led marketing. The chain may start with digital music on the Internet that creates an interest for concerts and later for CDs; a reversed approach compared to the traditional intricate value chain.

At the time of writing, existing business-to-consumer models (B2C) for digital music distribution look quite different. Major services, as iTunes or Wal-Mart, offer the possibility to buy single tracks that can be copied to CDs for unlimited use. Others offer streaming, renting, or other limited-use models, for example Virgin Megastore. The user either pays in advance to a personal user account, or subscribes for a certain period of time. In both cases the user loses access to the service as soon as he or she stops paying.

In addition to these variants of B2C models there are also some interesting alternatives or hybrids. One is to use P2P technology to distribute music via the users' own computers. A central server checks the copyright status of files and only approved files are distributed and sold through the network. One example of this kind of consumer-to-consumer model (C2C) is the UK based service Whippit.

At the P2P services Weedshare and Altnet users themselves act as retailers. The users have the opportunity to add digital rights management (DRM) facilities to control the use of their downloadable works and the services act as promotional sites. Altnet uses the widely spread P2P client KaZaA as an infrastructure for distribution, i.e., by creating an overlay network on top of the Internet.

5. Results

5.1 Musical Works in Swedish Broadcast Media vs. Swedish Concert Scenes

As the Swedish radio market was deregulated in 1993 some 80 local licenses were auctioned out during a first round, creating a complement to the four national public service channels. By the end of 1993, three commercial networks owned 25 licences and in March 2004 these networks (Mix, Rix and NRJ) owned or controlled 66 of the 91 current licences.

An earlier longitudinal study [7] concluded that the number of works a listener could hear on any of the national channels during years 1992 to 2002 remained fairly stable around 50,000 despite the increase in total airplays due to commercial radio.

In that study, “national radio” was defined as a radio channel or network geographically covering 66 to 99 percent of potential listeners aged 9 to 79. In Sweden, this means the commercial radio networks above and the original public service radio channels (P1-P4).

The longitudinal study showed that the number of titles played on the commercial channels had decreased between 54 to 77 percent from 1994 to 2002 in contrast to public service radio that seems to be the main source of diversity. For example, P3, the “youngest” public service channel, plays some 18,000 titles each year compared to commercial radio’s 500 to 1,000. The study also showed an increasing similarity in commercial channel play lists despite different so-called radio formats (that all originated in the US). The conclusion coincides with an earlier American study [8].

Supplementary data base analyses made for the present paper shows that the three commercial channels mentioned “re-use” most of their play lists from one year to the other.

According to Figure 1, a song played on any of the three networks has most likely been played the year before and the majority of the content was played also two years earlier. On the other hand, the Swedish public service radio as a whole seems to renew most of their musical material; the P3 channel has the most dynamic (non-repeating) play list.

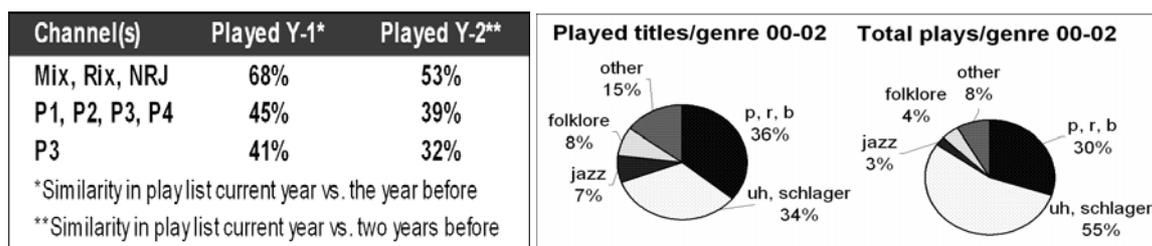


Figure 1. Average similarity of play lists 1992-2002

Figure 2. The use of music in concerts in Sweden..

Repertoire reported from live concerts differs to some extent from that of national radio. The genre “pop, rock, blues” is dominant in terms of performed titles in both radio (40%) and concerts (36%). But the genre “entertainment music, light dance combos or schlager” reports more plays at concerts (Figure 2). This tendency seems to have remained quite stable over the last seven years. On national Swedish radio, about 90% of total airplays can be categorised as “pop, rock, blues”.

There is, in other words, a clear discrepancy in terms of music selection between radio and concerts. Furthermore, the concert repertoire seems to be fairly dynamic as more than 40 percent of works played in a certain year was not reported performed in the year before.

Record releases are common during the fourth quarter, when about 40 percent of CDs are sold according to official IFPI statistics. CD releases are often followed up by a tour. The Swedish performing rights society, STIM, collects play lists not only from airplays but also from concerts. The latter reports might be dislocated and/or suffer from not being comprehensive. Nevertheless it is interesting to match data on airplays with concerts.

A longitudinal statistics analysis from 1996 to 2002 shows that only some 12 to 14 percent of works performed at concerts were aired on radio in the same year. The average age of a work performed at concerts in 2002 was 11 years. For works played on radio during 2002, the average age was 10 years. In other words, the aired music seems to be slightly “younger” (in this context: more recently recorded) and more focused on the broad genre of pop-rock-blues than music performed at concerts.

5.2 Analysis of File Requests to a P2P Network

The security company Palisade Systems acted as a node on a US Gnutella network for almost three weeks in February 2003 to collect empirical data on searches for a content study. Palisade's survey [9] concluded that most of the content on this particular network was either illegal copies of copyrighted music files or movies or pornographic material.

22,000,000 searches were recorded during these three weeks and some 250,000 searches specifically on music files were randomly chosen as raw data for this particular study. Almost all searches studied for this paper originate from edu-networks in the USA, most likely giving a good indication of what the adolescent music consumers are interested in.

Many studies on Internet usage have stressed the significant use among younger demographic groups. According to a study by the Pew Internet Project during the same period of time [10], music downloading was done by 56% of full-time and part-time students. Furthermore, a majority of the age group 18-29 was downloading music, according to the same study. It seems likely that some individuals are found in both groups.

The searches gathered from edu-networks are interesting as they represent future consumers developing their habits of music consumption. Some hundred searches among the 250,000 were randomly selected and manually matched to the extensive and detailed works database, Grammofonarkivet. When a search for song and artist matched several recordings in Grammofonarkivet, the oldest recording was chosen.

Not very surprisingly, the dominant genre among P2P searches was the broad genre of "pop, rock, blues". The majority of the requested recordings in this limited analysis was more than two years old.

Spot tests on "big" artists confirmed the hypothesis that a limited number of songs tend to be very popular. Examples: 50 Cent (4346 instances), Madonna (1608), Christina Aguilera (1333), Britney Spears (872), Avril Lavigne (828), Celine Dion (759).

This is a result that coincides well with a Harvard study on an OpenNap P2P network in 2001 [11], observations of official weekly top-10 and top-20 P2P lists from services such as Nolla and BigChampagne. It also coincides with numerous observations on Wal-Mart's weekly top-100 list of sold digital music files.

Furthermore, this study shows a broad interest in a diverse range of music, not only in new "hits". Even though new popular music dominates downloads in terms of numbers, the diversity of requests is interesting. Examples: Beatles (1514), Mozart (297), Louis Armstrong (163) and Tchaikovsky (58).

5.3 Study on the Customers of an Online Ticket Service

Exclusive statistics from Ticnet, the biggest Nordic on-line ticket service, shows an almost exponential growth of online sales since 1999. The company sells tickets to sports events, concerts and other cultural events.

According to Ticnets Key Account Manager Peter Lilliencrona, the increase in sales is equally divided between the types of events mentioned. However, ticket sales for pop and rock concerts have increased significantly more than for example concerts of classical music, according to Lilliencrona.

Sales depend, of course, strongly on time of the year, big sports events, record releases and other reasons. For example, after September 11, 2002, the number of tours was reduced compared to a "normal" year. During 2003, Ticnet sold 100,000 to 200,000 tickets a month, almost a 50 percent increase compared to 2002.

During the period June to September 2003, Mediaedge-cia performed a demographic study on visitors to Ticnet, thereby providing a picture of the average online ticket buyer.

The largest demographic group (age 25 to 39) represented 38 percent of the visitors. The second largest group (15 to 24), 24 percent. One fifth of customers visit 1 to 5 concerts during a six-month period and 82 percent use the Internet 30 minutes or more each day.

It seems probable that ticketing companies such as Tinet and Ticketmaster as well as concert promoters have overtaken much of radio's marketing role regarding concerts.

Perhaps the most interesting finding is that nearly 44 percent buy 1 to 5 CDs during a six month period and 15 percent buy as many as 1 to 3 CDs a month. In other words, Tinet customers, i.e., concert visitors, claim to be frequent CD buyers.

6. Conclusions

The repertoire of the Swedish concert scene is fairly dynamic. A significant number of works performed in a certain year was not reported as being played in the year before.

However, touring dance orchestras, an important element of the Swedish music scene, are probably one explanation for the high number of performed songs in the "entertainment music, light music, and dance combos" genre. Musical content played by commercial radio has become static with the dominating genre being "pop, rock, blues". Compared to public service radio, commercial radio presents an extremely limited number of works (titles).

It is reasonable to assume that going to a concert or downloading a certain song via a P2P service reflects a conscious choice, i.e., what somebody really wants to hear. Therefore the limited variety of played works (titles) in commercial radio is somewhat surprising.

The analysis of P2P requests confirms the overall opinion in the business that a limited number of titles are active and frequently downloaded during a certain period of time. Nevertheless, the variety of the requests to the studied P2P service also shows an interest in more "narrow" and/or older music.

This trend will probably be reinforced with newer versions of P2P clients, supplying exhaustive searches on all segments of networks and over multiple P2P networks. In other words, this is a minor technical revolution making it possible to search for "the needle in the haystack", for basically anything, anywhere and anytime. Overnet is the first known P2P network where nodes know what other nodes to send a query to. This makes a search much more comprehensive than, for example, in a Gnutella network where the searches and publishers are distributed more or less randomly.

Many legal downloading services have also implemented services or search engines to help users find music similar to what they already like. The common 30-second samples or similar features help music lovers to discover new music and will grow in importance as an alternative to radio's former role of being the number one shopping window for decades.

Searching for content and sharing play lists are natural behaviours among upcoming consumers. It is also highly likely they will not have the same affection for physical CDs as their predecessors. The increased sales of MP3 players and similar gadgets are proofs of a new way of consuming music on a large scale, far removed from physical, tangible, goods.

This is a major challenge for the traditional record industry. It also provides a scintillating opportunity for "smaller players" to compete with giants using the same rules of the game in legal downloading services. Apple's Steven Jobs early stated that all record companies were given the same offer when it came to iTunes. It is likely to believe that other legal services use similar models in order to simplify administration of hundreds of thousands recordings.

In other words, to some extent, the size of a record company might diminish in importance as buying digital files becomes more common among consumers.

The present technical incompatibility between different legal downloading sites will most likely disappear in the long run resulting in boosted sales. For example, Apple's current leading position with a proprietary "closed" solution will be challenged as

consumers want to play music from multiple legal sources on a single (portable) music player or move music from one device to another.

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