

## WEB APPENDIX A

### Background to the Swedish Music Market

This web-appendix describes the Swedish music market and its evolution. The focus is on the three services that each dominated the market in its time, starting with recording and then moving on to sharing and streaming.

*Recording.* At the beginning of the 20<sup>th</sup> century, a new service emerged in the music market in Sweden and many other countries. This service was based on the possibility of recording and playing back music using stereo systems and will be referred to as “recording” here. Prior to recording, music had to be performed live through singing and playing musical instruments, which implied that music publishers offering sheet music had a dominant position in many music markets (Garofalo 1999; Sanjek 1988). Recording made it possible for the wide-scale production, distribution, and consumption of music to be free of time and place and paved the way for record companies specializing in the recording of music. From the 1920s onward, record companies became incumbent actors in many music markets, and after World War II, the record companies strengthened their position even further. This was due to (a) the widespread adoption of radio in the 1920s and 1930s, (b) the introduction of new music styles, such as rock ’n’ roll, which sold well, (c) mergers and acquisitions, which created more profitable firms, and (d) the introduction of the vinyl record, which improved sound quality and durability (Garofalo 1999; Sanjek 1988). By the 1970s, in many countries, including Sweden, a relatively stable market centered on recorded music existed, including actors such as record companies, music publishers, live organizers, artists, songwriters, record stores, music studios, trade organizations, and other more marginal actors.

During the early 1980s, the digitization of the music market started with the introduction of the CD and the CD player. The CD increased the sound quality and durability of recordings, but consumers’ listening behaviors did not change radically, as people still

mostly listened to albums at home on their stereos (Hesmondhalgh and Meier 2018). The business model of the music market had also remained the same, although the selling of records increased as people not only bought new music on CD, but also replaced their vinyl records with CDs, a process referred to as the “CD replacement cycle.” (Garofalo 1999; Sanjek 1988) Music journalist Nils summarized the development as follows: “People switched to purchasing CDs and to purchasing the music they already had on vinyl. The record companies experienced a sharp increase in revenues throughout the 1990s up to 2001; it was the market’s all-time-high.”

*Sharing.* At the end of the 1990s, with the advent of the internet (a worldwide system of interconnected computers) and file sharing (a common designation for the distribution of digital files via the internet), people in Sweden and elsewhere started to share music for free in large networks organized as file-sharing communities. Sharing is commonly done without the consent of, or any remuneration being paid to, the copyright holders and is therefore referred to as “piracy” by many informants and music researchers (Leyshon 2014; Wikström 2013). According to the informants, the most popular file-sharing site for Swedes was the community named Pirate Bay. The comment made by Trade organization CEO Arne is typical: “For the average citizen of Sweden, piracy didn’t entail a lot of different options. It was just Pirate Bay.”

No reliable measurements of the diffusion of sharing in Sweden exist, but judging from the interviews as well as music research and reports in the media, it had, by the middle of the 2000s, become the dominant way for acquiring music, at least among younger people (Leyshon 2014; Wikström 2013). A&R specialist Mattias said, “Everyone I knew was downloading music from the internet for free and believing it to be absolutely okay and natural, and nothing morally questionable at all.” Another proof of the significance of sharing was the collapse in the commercial market for recorded music. Trade organization CEO

Maria's statement is representative of the shift from purchasing to free sharing: "During the piracy years, the market [for paid, recorded music] plummeted by about 50 percent." Hence, file sharing of music had a disruptive effect on producing and consuming music. The implication was that actors that were dependent on the existence of a commercial market for music as under recording, such as record companies, were hurting. Hans, a CEO of a record company, reminisced: "I had to lay off half of the work force during the piracy years. Awful times."

*Streaming.* Sharing music for free is a violation of copyright laws and prevents market actors from monetizing on music services. Therefore, a conflict between the industry actors (the record companies in particular) and the "music pirates" (namely Pirate Bay) emerged in Sweden, with the "pirates" ending up in court. After two trials in 2009 and 2010, the four founders of Pirate Bay were convicted of copyright infringement. According to the informants, the Pirate Bay trial and the negative publicity it generated contributed to the realization of streaming as primarily represented by Spotify in Sweden, which launched its streaming service in 2008. Union lawyer Olof put it bluntly: "Spotify killed piracy." Additionally, the EU Intellectual Property Right Enforcement Directive (IPRED), which requires all EU member states to apply existing copyright laws more effectively, was enshrined into Swedish law first of April 2009. Trade organization CEO Arne suggested that this further decreased the downloading of copyrighted music on the internet: "An organization called Netnode determined that the amount of internet data in Sweden dropped by 40% the night between the last day of March and the first of April. While it is hard to measure the amount of internet data on a national level, it is unquestionable that the downloading of copyrighted music decreased radically after the enforcement of IPRED."

Streaming, like sharing, is based on Information and Communication Technology (ICT). The difference is that with streaming, consumers do not need to download music files

to their computers. Instead, they listen to songs online; in other words, they “stream” them (Leyshon 2014; Wikström 2013). More specifically, music is exchanged in streaming by people subscribing to the services offered by music streaming firms such as Spotify, Tidal, Deezer, and Apple Music. According to market statistics from Music Sweden (2016), 85% of recorded music in Sweden was consumed via streaming in 2015, with the Swedish firm Spotify having a dominant position with an 86% share of the streaming market.