A System Archetype Analysis of Digital Music Piracy

TREO Talk Paper

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Abstract

Digital experience goods, such as music and video, are readily available and easily accessible through sundry illegal channels. Furthermore, the rate of music theft has been increasing at a seemingly unstoppable rate. Despite the laundry list of government regulations and federal laws, digital music is still being reproduced illegally, with very little legal repercussion (e.g.: Upshaw, Babin, and Monroe, 2010).

While the effect of downloading a single song or video may feel inconsequential, it is the cumulative impact of millions of illegal downloads that is devastating producers. A significant amount of research exists regarding the fiscal impact of digital music piracy to producers and the industry; however, it remains unclear what longer-term effects this type of theft has on society. The focus of the conversation needs to be moved beyond these individual components of the music piracy game (e.g.: number of legal/illegal downloads, loss of industry profit, drop in music charts, legal repercussions for piracy) to encompass the entire system and all of its stakeholders (i.e.: society as a whole).

By moving the discussion at hand to the system interactions, as opposed to the individual components, the often-forgotten variable of time can be taken into consideration (Forrester, 1991). System archetypes are one manner of providing insight into the nature of an underlying problem, and offer a basic structure upon which a model of the system's behavior can be developed (Spivey, Gergely, Munson, and Schreck, 2011). These archetypes highlight patterns of behavior, as well as aid in defining the fundamental structure that drives that behavior. They are also vital for forecasting, as archetypes predict long-term results that may be masked by different behaviors. If a certain behavior is encountered, preemptive, or counteractive measures may be taken to improve the results of the system, and possibly mitigate any hazardous outcomes.

In the case of music piracy, due to economic and environmental catalysts, illegal activity in the music arena has been increasing exponentially. Therefore, the main issue is growth. However, it is a viable assumption that nothing will grow forever (Braun, 2002). Eventually, some limit will be encountered that will trigger a halt to the growth. As all of society is bounded by the same single system, everyone will feel the eventual repercussions of this constraint, or limit to growth. This phenomenon, in essence, describes the archetype known as the 'tragedy of the commons'.

The tragedy of the commons implies a scenario in which society shares a common resource or constraint. This system archetype is defined as a situation in which multiple parties, acting independently as well as rationally (and towards their respective self-interest), ultimately deplete a shared, limited resource, even though it is obvious that doing so is against the entire group's best interests (Braun, 2002; Hardin, 1968). However, they are not cognizant of the state of the shared resource until it has been damaged beyond repair. Everyone shares the negative outcome associated with the abuse of the shared resource, but the connection between the resource and the individual decisions is so weak that no one realizes the situation until the resource is lost to all (e.g.: Braun, 2002).

Much in the same way, society is sharing a pool of new music. Society can be broken into two distinct groups, those that partake in legal music downloading, or the legal consumers, and those that operate in illegal mediums, or the pirates. In this paper, through a systems dynamics approach, an archetype is built to model the behavior of both legal and illegal music users. Additionally, the effects over time are considered. The conceptual model suggests that if piracy continues to grow at the current pace, industry shareholders will eventually lose the motivation to supply new music. In turn, this tragedy would affect not only the illegal players, but legal consumers as well.