The internet as a catalyst for microdeviation: An integrated theory of digital music piracy

A Thesis Submitted to the College of
Graduate Studies and Research
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy
in the Department of Sociology
University of Saskatchewan
Saskatoon, Canada

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ABSTRACT

Digital music piracy has persisted as a contested form of online deviance for more than two decades, garnering social, industry, and legislative responses. This dissertation outlines an integrated approach to explain this form of deviance through a combination of the networked society, social learning, and moral disengagement theories. This approach was developed based on three hypotheses; first, that technological competency defines online experience; second, that online experiences dictate the form of social learning encountered by users; and third, users' social learning experiences shape the way they neutralize their deviance.

The hypotheses were empirically tested using a data set of 616 cases drawn from a self-administered online survey. Linear regression analyses were conducted for each test and statistically significant models as well as linkages were developed for each hypothesis; however, moderately strong findings in some cases suggest that additional theory considerations should be made. This dissertation concludes with a discussion of the study's implications, particularly as they relate to an increasingly pluralistic internet.

ACKNOWLEDGEMENTS

Academic pursuits provide us with the opportunity to stand on the shoulders of giants. I have been fortunate in my chosen path for those who have agreed to carry my burden. Special thanks go to Dr. Hongming Cheng for his patience and guidance through the duration of my studies, and to Drs. Carolyn Brooks, Jennifer Poudrier, and Robert Hudson for their endless support.

The Department of Sociology, University of Saskatchewan has been a steadfast supporter throughout this voyage, which could not have been accomplished without the support of Lori Giles, Kristen Harms, and Barb Wotherspoon.

I also extend my thanks to Dr. Bill O'Grady who played a pivotal role in starting me along this course, and to the Faculty of Criminology at Wilfrid Laurier University who have provided a surrogate home away from home (Especially Marg & Irene).

Finally, I gratefully acknowledge the financial support received from the College of Graduate Studies and the Department of Sociology, University of Saskatchewan.

DEDICATION

Nothing, without family.

My love to Leslie, David, John, Kristen, Daniel, Lorien;

My heart to Cara, Riley, and baby

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CHAPTER 1 INTRODUCTION AND BACKGROUND TO MUSIC PIRACY

Introduction

Throughout the late 1990's and into the first decades of the 21st century, digital music piracy has been the target of educational and litigious campaigns by recording industry stakeholders (David, 2009). Music piracy refers to the engagement of individuals, particularly youth, in the unpaid Internet-assisted trade of digitally compressed popular music files (commonly called "MP3s"). The micro-transactional approach to pirating music, often referred to as Peer-to-Peer (P2P), has been acknowledge by the music industry as death by a million cuts to their business model: these microdeviations have arguably had grave financial impacts at all stages of the music production process (Elton, 2013). Despite an established discourse of deviance – including formalized steps by the Canadian government to schedule punishments for engaging in electronic copyright circumvention – this phenomenon has not desisted amongst youth (Popham, 2011; Vandiver et al., 2012). With this consideration in mind, the research discussed herein will evaluate how differential web experiences establish alternative perspectives of risk and deviance about the online world, empowering divergent user groups with unique strategies for mitigating or minimizing risks and harms associated with music piracy (David, 2010). While engagement in music piracy is near-universal in certain demographics, this study argues that individuals come to engage by radically different means.

This study develops an integrated theory that attempts to explain the long-term persistence of music piracy through the lens of social and criminological theories. Generally, it uses a combination of the theories of networked society and communication power (Castells, 1999; Castells, 2009); social learning (Akers, 2008); and moral disengagement (Bandura, 1999)

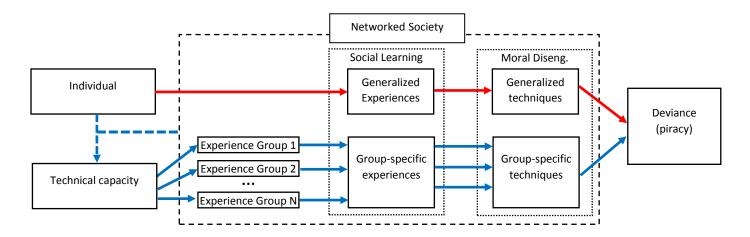
to develop a pluralistic understanding of a group behaviour that has heretofore been considered rather homogenously (e.g. Fuchs, 2013). This conclusion was drawn based on three primary hypothesis tests.

First, using Castells' (2009) assumption that technologically competent individuals would define their webspaces "around alternative interests and values" (p. 430), this study hypothesizes that one's technological competency is instrumental in defining their online experiences.

Differentiated experiences may manifest as one's level of trust for the online world or in their web-usage behaviours, and are illustrative of the divided social network that Castells theorized. The second hypothesis is requisite upon establishing a partitioned internet society and posits that fractured online experiences dictate the form of social learning that users are most susceptible to. Akers (2008) identifies four main tenets of social learning, including differential association; differential reinforcement; modelling; and definitions. While Akers (2008) has argued that these tenets generally overlap contemporary studies have illustrated that individual characteristics may develop a propensity toward one of these four archetypes (e.g. Hinduja, 2006), which is foundational to this hypothesis. Finally, hypothesis three argues that the preferred manner of social learning will influence the way users neutralize any perceived or communicated harms related to music piracy.

The intentions of this research project are illustrated above in Figure 1.1; the red arrows identify the frequently encountered singular purview of microdeviance whereas the blue arrows identify the pluralistic hypothesis of this study. Nominally, existing music piracy research has considered participants in an aggregate form and overlooked within-group variation.

Figure 1.1: Theoretical Framework



The current research seeks to examine music piracy as it occurs within the mosaic of online expertise. By integrating these theoretical perspectives I anticipate that this study will address research gaps in the application of sociological and criminological theory to the modern, connected world. These hypotheses are empirically tested using a data set drawn from a self-administered online survey. Rigorous statistical analysis has been conducted for each hypothesis producing a set of statistically significant linear regression models and conceptual linkages; however, moderately strong findings in some cases suggest that additional theory considerations should be made. The remainder of this chapter lays out foundational knowledge about the nature of music piracy, its impact, and a rationale for studying the phenomenon before concluding with an in-depth discussion of the hypotheses outlined above.

What is the nature of music piracy?

Originally designed in the late 1980's, the Moving Picture Experts Group One Audio Layer 3 (MP3) format of audio compression was created with multimedia purposes in mind. This technology allowed for the compression and storage of compact-disc quality audio tracks on one's personal computer (Fraunhofer Institute, 2015). While audio tracks can be saved on a

computer in other formats, their small size and relative quality make MP3 files a convenient form of multi-media. Their impact, as Hinduja (2006) writes, has been monumental:

MP3 technology has been heralded as the music lover's dream... The technology has granted free, unrestrained access to digital songs of extremely high fidelity by practically every musical artist, past and present. It has also allowed individuals to amass sizable collections of music files, distribute them to others, make custom audio CDs of favorite songs, and transfer them onto portable players. (p. 3)

These files pose only a small demand on electronic storage resources thus making it easy and convenient to collect numerous MP3s, usually of pop music, and share them via the Internet (David, 2010). This technology has been accessible to the public since the early 1990's, however the enormity of its impact on music piracy was not known until specialized software called Napster emerged in 1999 (Knopper, 2009).

The ongoing digital modernization of society throughout the last half of the 20th century and into the new millennium has infused technology into the mainstream of human activity. This unprecedented level of technological access has served as a catalyst for several waves of an ongoing Information Revolution (Hinduja, 2006). Modern human industries have been supplicated by the autonomization of capital, driving the development of increasingly complex tools and structures related to increasing our capacity for storing and accessing information (Castells, 1996). One outlet of this shift in capital has been the personalization of microprocessors, in the form of the desktop computing, commencing with the late-1970s. This development entrenched computing as a household activity, expanding the information revolution by bringing the offices and studies of progressive families into the fold of

technological capacity. A second technological development, the Internet, progressed the information revolution further by institutionalizing new means of communication – concepts that we now take for granted such as the World Wide Web (WWW) and e-mail (Brock, 2003).

Since the 1990s Internet use has undergone exponential growth worldwide. For example in Canada between 2000 and 2012 the number of households connected to the Internet jumped from 4.7 million to approximately 11 million, reaching a penetration rate of 83 percent. As noted in the most recent iteration of the Canadian Internet Use Survey, 97 per cent of people connecting to the Internet do so with high-speed connections (Statistics Canada, 2012). This represents a staggering growth from year 2000 levels, when only 12 per cent of Canadian Internet connections were through high-speed services (Statistics Canada, 2001). These services, typically referred to as broadband, provide users with access to networks that have high rates of data transfer, or bandwidth. With demand driven by the net-generation's technological reliance, service providers have seen an increasing demand on bandwidth allocations. By 2008 more than half of all Canadian Internet subscribers purchased packages allowing download speeds of 5-9 megabits per second (Statistics Canada, 2008); a service fast enough to download roughly 500 pages of text per second, or download a high-definition film in as little as 15 minutes.

The concurrence of these technological advances has begun to shape human behaviour in the virtual world. For instance, Internet users who adopt a broadband service have been illustrated to increase their monthly time spent online by nearly 22 hours (Hitt & Tambe, 2007). Studies have further illustrated that the nature of activities whilst connected also change. Users with access to high-speed Internet are more likely to use their services for reading the news, corresponding with peers, watching television, and listening to the radio (Hitt & Tambe, 2007).

Moreover, the post-millennium landscape of the worldwide web provides users with unprecedented levels of customizability (Lessig, 2004) and tools for communication (Castells, 2009). A series of web-design advancements at the turn of the century led to drastic shifts in the way people came to know the Internet. Now collectively called the "web 2.0," this second stage of the Internet revolution gave rise to now-familiar concepts like social-networking and streaming media (Lewis, 2006). Technological development through the latter half of the 1990s and into the early 21st century molded the Internet and particularly the World Wide Web into a dynamic, fluid cyberspace. The web 2.0 (O'Reilly, 2005) is highly customizable, leading to unique experiences for each individual according to personal interest. Current estimates indicate that there are more than 600 million unique websites (Netcraft LTD, 2014) and an estimated 1.79 billion social media users (Statista, 2014), which provides some insight to the possible breadth of information that individuals may access.

Along with the many advantages noted above, the Internet revolution has also opened doors for acts of deviance ranging from child pornography to cyber-bullying (Schmalleger & Pittaro 2009, p.ix). Recent public interest has focused on issues like the so-called "Nigerian Letters" whereby people are promised financial return for sharing personal information, or phishing wherein the Internet user is conned into providing access to financial information through websites misrepresenting trusted corporations (Scmalleger & Pittaro 2009, p. 256). A second study has illustrated that adoption of broadband technologies at home has pronounced impacts on users' participation in deviant online categories – most particularly downloading music in compressed digital formats (Kolko, 2010).

One of the interesting facets here is the lack of a concrete theoretical groundwork, arbitrary or not, defining the difference between the online and offline world. As Denegri-Knott and Taylor (2005) discuss,

At times, the dividing line is obvious providing a clear differentiation between emerging and traditional offline communication and behaviors. At others, it becomes blurred, making it difficult to understand emerging communications and behaviors without being tempted to label them with offline categories of what is socially acceptable. (p.93)

A "blurry" divide often exists between actions that occur in the digital and non-tangiable realm of the online world, and the actual and livable experiences of the "offline" world, leading to ill-defined and uncertain notions of what are acceptable behaviours in this new world (Denegri-Knott & Taylor, 2005).

One particularly infamous form of digital deviance with a blurred sense of acceptability is the collecting and trading of MP3 format music files. The most recent Canadian Internet User Survey found strong indications that one of the primary uses of the Internet, particularly with Canadians under 30 years of age, is downloading (Statistics Canada, 2013). Additional studies have reinforced the notion that young people routinely participate in MP3 downloading. For instance, Rumbough (2001) demonstrated that more than 60% of college students use the Internet for such deviant practices. More recently, Selwyn's (2008) analysis of self-reported computer deviance found that 93.9 percent of participants had engaged in some form of piracy, and both Popham (2011) and Vandiver et al. (2012) identified rates of engagement in music piracy amongst young people to be higher than 80 percent.

In 1999, university student Shawn Fanning of Northeastern University created the now infamous Napster software package (Sterne, 2012), aiming to make MP3 trading easier among residence students. This "online community" grew quite swiftly, eventually giving more than 60 million members the opportunity to access and download MP3 files from other user's computers (Knopper, 2009). Napster was the first of many peer to peer file sharing programs giving MP3 users access to these files via the Internet. Although it was eventually shut down through legal means by the Recording Industry Association of America (RIAA), this software brought into question various legal issues surrounding personal use of the MP3 (Hinduja, 2006).

Napster's model of P2P sharing relied on the use of a centralized database which held records of all registered Napster users – and a list of the music files they were willing to share (Sterne, 2012). With this distribution process in mind, lawsuits filed by the RIAA and various recording artists successfully demonstrated that Napster was complicit in file-sharing because the company had directly aided in connecting individuals willing to share copyrighted materials. While this initial series of legal actions ultimately led to the closure of Napster, they identified a loophole for upstart P2P networks to operate: if a company could connect P2P users without playing a direct role in the file transfer, they would be insulated from the letter of early digital copyright laws (Elton, 2013). Within a few months of Napster's downfall a new, open-source digital protocol for P2P connections had been developed and utilized by more than a dozen competing services facilitating an estimated 70 million users at their peak.

This new arm's length protocol kicked off a protracted arms race between the interests of the recording industry and software developers who sought to monetize P2P piracy through advertising. Throughout the 2000s an unending series of P2P clients emerged to try their hand at beating the RIAA, each taking different approaches to circumvent legal rulings and precedent

(Elton, 2013). While many of the largest services inevitably fell to legal action, they aided in the growth of P2P and helped to establish the digital pirate as an antihero standing up to big business (Knopper, 2009).

One stand-out to this cycle is the P2P protocol known as BitTorrent (David, 2010). Whereas most other services required registration by users, BitTorrent's success is that it enables anonymous file downloading. In essence, when a user (leecher) wants to download a file, BitTorrent uses encrypted communications to locate a number of other users (seeders) with the same file and then instructs each seeder's computer to send a small segment of the file back to the leecher's computer. When the leecher's computer has received all segments of the sought-after file it reassembles them into a usable format. While this "swarm" approach does not provide anonymity, it does not require any one specific client thus freeing users from relying on a single service provider (David, 2010). Additionally, multi-national usage and micro-transactional approaches have complicated attempts to control BitTorrent use.

What is the impact of music piracy?

While the impacts of music piracy might be considered along a continuum, a top-down meta-analysis reveals polarized discursive trends about the harms, fueled by antagonistic relationships between the recording industry and consumers that has developed into an usversus-them dichotomy. To begin, we must consider the financial implications of wide-scale engagement in music piracy. The recording industry began identifying significant financial losses around the turn of the 21st century, in line with the rise of P2P file-sharing.

Unsurprisingly, the RIAA and industry partners attest much of the blame for these losses to music piracy. As predicted by Castells (1996), this digital era has ushered-in a post-scarcity world where the value of informational goods has superseded the value derived from traditional

means of trade. In the case of music, P2P has undermined a monopoly of music distribution that was traditionally held by the music industry (David, 2010), leading consumers toward more cost-effective (read: free) means of accessing cultural iconography like popular music. Thus a social movement away from monopolistic market exchange developed at the cost of profitability for the music industry.

Lending credence to this, the principal damages voiced by most stakeholders with interests in criminalizing music piracy are on financial grounds. Primary amongst these stakeholders, the RIAA claims that as much as \$12.5 billion is lost annually from the US economy due to this phenomenon. This claim is a product of investigations by Stephen E. Siwek (2007), who estimated that music piracy produces a "substitution rate" of approximately 66% (p. 5). In other words, the author has calculated that music fans will choose to download rather than pay for two thirds of the music that they consume. Given that the average consumer who purchased music in 1999 spent approximately \$64.00 on all forms of recorded popular music, this represents significant financial losses (Pakman, 2014). Drastic shifts in the actual reported revenues of the music industry through the past decade and a half have frequently been quoted as evidence of these harms. For instance, the annual reported revenues for this industry decreased by \$7.3 billion (from \$12.8 billion to \$5.5 billion) between the years 1999 and 2008 (Pakman, 2014).

These trends are also supported by frequent estimates and self-report studies about piracy behaviour, particularly amongst youth. Rumbough's (2001) study demonstrated that more than 60 percent of college students use the Internet for such deviant practices; moreover, Selwyn's (2008) analysis of university students' self-reported computer deviance found that 76 percent of students reported engaging in music piracy. The Organization for Economic Cooperation and

Development has stated that more than 24 percent of Canadian households pirate music (Wunsch-Vincent & Vickery 2005), and recent data from Statistics Canada suggests that this number may be closer to 50 percent (Statistics Canada 2012).

The second impact, and an outcome related to the first, is the normalization of music piracy in the digital world. This has catalyzed drastic shifts in music consumption, regardless of engagement in music piracy (Lessig, 2008). For instance, the rise of the iPod, a portable digital music player, personalized music tastes in ways that prior media could not (Daschuk & Popham, 2013) and pushed consumers away from purchasing 'legitimate' mediums (Sterne, 2011). Furthermore, researchers have noted patterns of change where consumers now favour buying individual songs over the traditional "bundled" albums; additionally, consumers have moved away from interactions with industry giants into mechanisms that support independent formats of music distribution (Pakman, 2014).

Castells (1999) predicted that monopoly holders like the music industry will interpret emergent market forces as a threat to their means of exchange, and will work in cooperation with the state to protect their dominance through socio-legal action. In the case of music piracy and new means of consumption, the RIAA and its partners have pursued litigation and policy manipulation to minimize the growth opportunity of illegitimate and legitimate alternative forms of music consumption (David, 2010). While these actions may momentarily protect the profitability of traditional institutions, they ultimately fracture social moralities and crystalize resistance in actors whose positions have been devalued, creating "trenches of resistance and survival" (Castells, 1996, p. 9).

Comparisons can be drawn between Castells' process of resistance and responses to the anti-piracy thrust of both the music industry and state (David, 2010). An organizing feature

amongst the resistors has been skepticism toward the financial arguments posed by the music industry; while the number of dollars lost make for an impressive press release, the academic and piracy communities have repeatedly questioned the underlying assumptions of these mathematics. No evidence suggests that, were piracy to disappear overnight, consumers would purchase music at the same rate as they download it (Raustiala, & Sprigman, 2012).

Additionally, the music industry's proactive approach to defending copyright – enforcing copyright through lawsuits – further instills dissent and solidifies resistance amongst music fans (Knopper, 2009; Magaudda, 2011).

These heavy-handed approaches to protecting monopolies have accelerated a responsive process of dematerialization (Magaudda, 2011), leading to the entrenchment of new cultural norms of music consumption. Researchers have begun to catalogue social practice in terms of music consumption, identifying a modern trend wherein a societal "pushback" against copyright enforcement occurs. As Depoorter, Parisi, and Vanneste (2005) explain, "the legal condemnation of file-sharing creates a backlash effect on norms and underlying behaviour," instigating continued and increased engagement in piracy – to the point that these actions become enmeshed in moral and social belief (p.367).

Moreover, these pushbacks represent a departure from traditional means of exchange, one that has been abetted by technological inculcation (Castells, 1996). From the ever-increasing penetration of high-speed Internet to the sale of 350 million iPods, music consumers have leveraged technological advancement to find alternative means of accessing music:

In the development of consumption practices connected with digital music, the spread of portable music players has clearly played a central role in enabling the agency of the listener and in articulating new practices, meanings and attachments toward music. (Magaudda, 2011, p. 22)

Within this context, fans are now interacting directly with artists and wholly cutting out the middle man of the music industry. Bockstedt, Kauffman, and Riggins (2005) observe that:

The move from physical forms of recorded music to digitally-formatted music files has been decreasing the necessity for traditional sale channels and distribution processes. Artists now have the power to distribute their own music, record labels are not needed to cover the costs of manufacturing and distributing physical recordings... (p. 26)

Similar findings are presented by Beer (2008) and Sterne (2006) who both argue that within the framework of the web 2.0, music fans and artists are choosing to communicate directly rather than through the proxy of the record label. These interactions contribute toward a social understanding of music as a cultural artifact resultant of co-creation. Artists are creating works that respond to fan requests, and fans are "remixing" artists' works to create new artifacts (Lessig, 2008). This shifting dynamic has dematerialized music, undermining the commodity valuation applied by the recording industry. The music industry, particularly record labels and producers, have lost both financially and socially because of music piracy.

Why is it worth studying?

By some measures, debate about downloading popular music in digitally compressed formats has lost relevance in an era of rapidly progressing technologies. The practice of sharing popular music between fans over the Internet without paying for it emerged more than twenty years ago and has encountered significant resistance from the majority of the music industry (Zentner, 2009). Of late, it appears that the volume of preventative messages and actions directed

toward stopping music piracy has declined, as has the fervour of the Recording Industry Association of America's (RIAA) litigation attempts against pirates. Similarly, the corpus of literature related to music piracy peaked around 2009 and has begun to plateau, if not decline, since (Ngram, 2015).

Given this information it appears that the twenty year war undertaken by international representatives of the recording industry, championed by industry groups like the *RIAA* and the *Canadian Recording Industry Association* (CRIA), has stalled with no clear victor on either side. Instead, a series of victories and losses for both opponents and proponents to the digital music trade have occurred (Elton, 2013). For instance, through 2014 the RIAA and the Motion Picture Association of America (MPAA) saw a series of previously successful legal actions against a website facilitating piracy (megaupload) overturned in international courts (Dredge, 2014). Although the content provider managed to succeed in their legal cases defence, their website was ultimately dismantled through attrition. In another example, a 2014 Federal Court of Canada ruling conceded that downloading music is a violation of the Canadian *Copyright Act*; however, it also ruled that alleged non-commercial damages be held to a statutory cap of \$5,000 in order to discourage copyright trolling lawsuits (Voltage Pictures LLC v. Doe, 2014 FC 161). This establishes a maximum penalty which falls far below the threshold for any feasible profit recovery by copyright holders, making litigious action highly unlikely in Canada (Geist, 2014).

Both of these legal cases exemplify the pyrrhic nature of the piracy wars in their current state; a virtual battleground wherein the stakes were long ago decided, and the only combatants are leaders far removed from the public. This stalemate was further evidenced in 2012 with a series of privately-funded reports suggesting a downward trend in music piracy – from the statistics it appears that there has been some level of attrition in music piracy (International

Federation of the Phonographic Industry, 2013); however, peer-reviewed research has yet to establish these findings in a robust manner. Nonetheless, industry specialists have lauded these findings as evidence of a turning point in the music piracy wars.

Another argument against the importance of the piracy wars is the emergence of alternative, online frameworks for music distribution that have evolved in conjunction with everincreasing bandwidth capacities (Thomes, 2013). These streaming services have provided income generation for copyright holders at little-to-no cost to end users, and no registration or specialized software requirements. The monetization of music streaming through advertising has simultaneously dampened the resistance to digital music amongst the recording industry, and ignited a popular return to legitimate means of enjoying music (Borja, Dieringer, and Daw, 2015). The irony being that demand for bandwidth was, at least in part, spurred on by the resource requirements of piracy (Shulze & Mochalsk, 2009).

The impacts of alternative music sources have been pronounced. Popular services like Spotify, Pandora, and iHeartRadio have enjoyed significant growth through the previous half-decade; industry leader Pandora boasts more than 70 million unique users who can listen to curated playlists for free, or can pay a small monthly fee for additional choices (Thomes, 2013). Indeed, 2014 marked the first year in which digital music sales decreased – a phenomenon that has been connected to streaming services (Halliday, 2013). Simply put, the freedoms and the simplicity of the streaming distribution structure negatively impact the likelihood that a consumer will download pirated music. Further, recent literature has illustrated that consumers are willing to pay for digital music so long as the associated costs are within what consumers deem a reasonable price for entertainment (Thomes, 2013; Pakman, 2014).

Certainly, these arguments could be interpreted to suggest that researchers need not investigate music piracy any further. However, by other measures one could argue that the music piracy debate is very much alive and well. For instance on December 9th, 2014 significant police and bureaucratic resources were devoted by Swedish authorities to a raid of the facility housing the server equipment for a website known as "The Pirate Bay" ("Pirate Bay 'copy' goes online after shutdown," 2014). This website, established in 2003, was an open-source data clearing house for the online trade of (often pirated) popular culture media files. The Pirate Bay had championed the BitTorrent file transfer protocol, discussed above. Given the nature of the protocol, the Pirate Bay and its lawyers had argued in past legal proceedings that their services did not violate any Swedish copyright laws because no copyrighted material was actually housed in their facilities ("Pirate Bay 'copy' goes online after shutdown," 2014).

Additionally, in 2012 the 43rd Government of Canada received royal assent for bill C-11 – the Copyright Modernization Act. This bill was developed in committee with the CRIA, industry representatives, and public consultation, with a goal to update and clarify the rights of copyright owners and users in the context of 21st century technology. Present in the legislation are revised definitions of piracy and fair-dealing, a schedule of fines for acts of piracy, and exemptions for various institutions and uses ("Bill C-11," 2012). While the law primarily targets "bad apples" who promote piracy in a commercial manner, it also criminalizes individual acts of piracy (Geist, 2014). The Canadian public has, at the very least, acquiesced through the democratic process to this bill and its implications, signifying that there is still public interest in the piracy wars.

Furthermore, a series of recent news events have further entrenched the ongoing significance of music piracy within the context of public awareness. The RIAA, along with other

copyright owners, have commenced with a new strategy for pursuing individuals whom have been identified as pirates. For instance in early 2015 the Government of the United Kingdom commenced with the Voluntary Copyright Alert Programme (Vcap)("UK anti-piracy campaign set to begin," 2014). This program sends correspondence to British citizens who are suspected of being "persistent pirate" to notify them that their actions have been noticed. These actions, commonly referred to as "notice-and-notice" communications, are legislated as technical measures under copyright-related legislation. Similar clauses were included in the Canadian bill C-11, and reports that notice-and-notice actions have begun appearing in the mailboxes of Canadian telecom subscribers since the bill's formal enforcement in 2015 (Geist, 2015).

A recent study commissioned by the The International Federation of the Phonographic Industry (IFPI) notes that piracy continues to be a significant threat to the profitability projections of the recording industry. The *Digital Music Report 2014* describes music piracy as "the biggest single threat to the development of the licensed music sector," estimating that nearly 50% of music consumers believe that piracy is "fair" (p.40). Further, the report notes that nations without strict regulation of downloading have reported a growth in music piracy trends, particularly in the use of mobile technology as a tool for downloading.

One further example illustrates the relevance of music piracy in a modern context. A recent academic investigation of the market impacts from aforementioned music streaming services has indicated a positive correlation with service usage and engagement in piracy. Specifically, Borja, Dieringer, and Daw (2015) tested a series of logit models based on current knowledge about the predictors of music piracy. While they found that established parameters like peer pressure, risk perception, age, and beliefs about artists were positively correlated with music piracy, they ultimately concluded that streaming usage is a controlling factor in these

models. That is to say, access to the most recent technological advancement in digital music "increases the likelihood of engaging in music piracy by about 20%" (p. 74). This seems to align with previous research which has identified access to technology as a significant predictor of increased piracy (e.g. Hinduja, 2006; Holt & Morris, 2009; Popham, 2011).

What does this study achieve?

Using an online, electronic survey methodology, this research explores a relationship between technical capacity, cyberspace experience, and moral disengagement. As discussed in the first section of this chapter, it outlines an integrated approach to understanding how the pluralistic nature of internet communications direct individuals along different paths toward neutralizing deviance. This study operates based on several foundational concepts. First, two decades of research has established that a majority of young people will engage in downloading behaviours, and that the primary gateway to this opportunity is access to technology. Second, differential reinforcement, differential association, and neutralization processes have been correlated with youth engagement in downloading through a number of academic explorations. Third, this study will be guided by Manuel Castells' theory of communication power in the networked society wherein interactive, horizontal networks of communication induces new social movements and groups relative to user interests. Further, Castells argues that this mass self-communication via the Internet diminishes the state's monopoly on the power to establish moral boundaries. Within this framework, then, the following research hypotheses are pursued:

Individuals with different technical capacities experience and trust the Internet in different ways.

This first hypothesis serves two purposes. First, it acts as a case study of Castells' (2007) theory of communication power, illustrating the role of a "segmented, customized mass media" (p. 2) in establishing new cultural domains. This is a function of differential online experiences and the type of mass-self communication that related users report. From here, the results from

this avenue of inquiry provide insights into the factors that divert users into widely varying online experiences. The assumption here is that there exists a relationship between computer competency and preferred formats of online interaction as well as levels of trust for the online environment. This hypothesis is addressed by first measuring the technical capacities of participants and indicators of their online trust, and and then comparing them with types and frequency of online communications.

The indicators of social learning vary across online experiences.

This hypothesis questions whether differing online experiences may expose individuals to different types of social learning. Social learning theory holds that engagement in wrongdoing results when the number of deviant definitions held by an individual about a given act surpasses their legitimate definitions. Definitions are accumulated through differential reinforcement and differential association, and deviant actions are recreated based on imitation or modelling of behaviours conducted by peers. This question is addressed by recreating Hinduja's (2007) findings wherein he found evidence for between-group differentiation on scoring for the various tenets of social learning theory using a questionnaire adapted for downloading.

Each sub-group morally disengages from the wrongfulness of music piracy in different ways.

The third hypothesis assesses the differences in strategies used by downloaders to minimize the harmfulness of their deviance. A commonly observed phenomenon in downloading research has been the tendency for young people to use a series of excuses that neutralize their actions. On the foundations of work by Sykes and Matza (1957), Albert Bandura (1996) developed a matrix of 'moral disengagements,' along with indicators, describing the processes that individuals use to reconstrue their actions and reinforce their deviance. A downloading-

based set of measures for moral disengagement was used by Rogers (2001) for his dissertation, and an adapted version that takes into consideration his findings is used to test this hypothesis.

CHAPTER 2 EXPLANATIONS OF MUSIC PIRACY

Introduction

The previous introductory section laid out a rationale for studying music piracy that aligns with the perspective of the recording industry; namely, that music piracy has caused significant financial loss and that the mobilization of financial and political capital to elicit state-sponsored responses is therefore justified. In Canada this has manifested as Bill C-11, the Copyright Modernization Act (Geist, 2013; Canada, 2010). Additionally, the introduction also outlined the social fallout associated with litigious and legalistic attempts to curb piracy. Contextually, popular music is considered a cultural icon by many and as such something that should not endure excessive control. Instances of exertion of force through symbolic violence may catalyze active circumvention of laws as a form of protest (Lessig, 2006).

This chapter begins with a critique of consensus approaches to crime as they relate to music piracy. Namely, Hagan's (1991) hierarchy of deviancies is applied to illustrate the rather ambiguous rationale for criminalizing this action, based on discordant societal interpretations of piracy. The purpose here is to identify the tenuous nature of copyright law and to clarify why enforcement of contested morals may catalyze trenches of resistance. This question might be answered with one of several social theories – including Kuhn's (1996) theory on the structure of scientific revolution; Bourdieu's (1975) discussion on the progress of reason; Wall's (2006) view of the internet as a conduit for criminal activity; Pontell and Rostoff's (2008) identification of white-collar deviancy; and Foucault's (1994) spectacle of the scaffold. Each of these theories are briefly explored with the intent of identifying relevance to music piracy before offering critiques that rationalize why they were not used as the theoretical underpinning of this study. Finally, the

chapter concludes by introducing Castells' (1999) theory of the network society and discussing how it may address the theoretical gaps encountered with other approaches.

Is music piracy a consensus crime?

The Canadian system of criminal and civil laws relies on a consensus philosophy of crime. Namely, our codified regulations assume that wrongdoing is a binary situation wherein an actor is either guilty or not guilty of wrongdoing, and that the rules governing wrongdoing are agreed upon by all members of society as representative of a common morality. This is reflective of the rule of law, an assumption that members of society may safely relinquish their sovereignty on the condition that the state will protect their natural rights (Ravelli & Webster, 2010). Furthermore the principles of democracy imply that the legalistic mechanisms governing individual behaviour are created via processes representing the will of the collective, thus completing the ouroboros of the protective state. Indeed, this discussion was articulated by Rousseau when writing on the social contract:

If the State is a moral person whose life is in the union of its members, and if the most important of its cares is the care for its own preservation, it must have a universal and compelling force, in order to move and dispose each part as may be most advantageous to the whole. As nature gives each man absolute power over all his members, the social compact gives the body politic absolute power over all its members also; and it is this power which, under the direction of the general will, bears, as I have said, the name of Sovereignty. (Rousseau, 1983 p. 32)

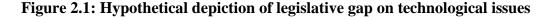
The implication here is that the State operates under two conditions: first, that as a representative of the collective it possess universal and compelling force that may be exercised to the benefit of its members, and second, that as a union of its members, the actions of the State are an

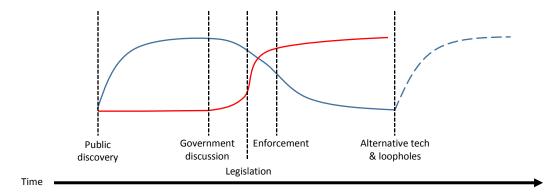
expression of the collective will. The precipice of this argument lies in the assumption that the actions of the state or its representatives will be reflective of the collective will, rather than those of power. Thus the assumption of our legal frameworks is that they represent a collective will – a consensus on right and wrong. While Rousseau considers the censorship of laws to be a subjective declaration of the public judgment on the morality of a given subject, he nonetheless acknowledges this disconnect and calls for the mitigation of its impact through application of the Rule of Law – or as he describes it, a binding agent for public force (Rousseau, 1983).

Despite the integration of the Rule into British law – and consequently the Canadian legal landscape — cracks and indeed gaping holes in the foundation of this citadel have long been evident. For instance a recently publicized review of the policing tactics used against protestors that assembled in Toronto for the 2010 G20 summit outlined a number of transgressions against its principles. The report described a number of instances where peace officers overstepped their institutional power, including allegations of violence; miscommunication; misidentification; and indications that standing orders superseded the protections outlined in the Canadian Charter of Rights and Freedoms (McNeilly, 2012, p. iii-xi). The reflexive nature of policing exhibited in these circumstances is illustrative of a liquid modernity where the prescient morals in a given situation are relevant to the immediate power dynamics rather than the obligations of the social contract and Rule of Law (Bauman, 2013). This breakdown, and the State's apparent acceptance of it, is indicative of a set of moralities that flow from situation to situation and align with the relative power in each setting rather than reflecting any form of consensual responses. These are symptoms of a society where public faith in the predictability of outcomes from interaction with the State is undermined to say the least.

This reflexivity has also been demonstrated through public discussion of music piracy. While music piracy has effectively been criminalized in Canada, the United States, and many other international jurisdictions, there remains a great deal of controversy over the deviance associated with it (Geist, 2014). Throughout the past two decades a number of theoretical frameworks have been constructed that cast music piracy in different vantages, from criminal wrongdoing to instrumentalist acts of resistance; as structured responses to industry; and moreover, as a non-issue to the participating public. These debates disrupt normative consensus approaches to criminality espoused in North American legislative practice, leading to discussion about the purpose and intentions for regulatory policy (Daschuk & Popham, 2013). The resulting public, academic, and political discourse has established a rhetoric of confusion from all sides, with terms such as "copy-left," "copyfight," "hurt," and "the celestial jukebox" disrupting the creation of "common" morals regarding music piracy (Burkart, 2014).

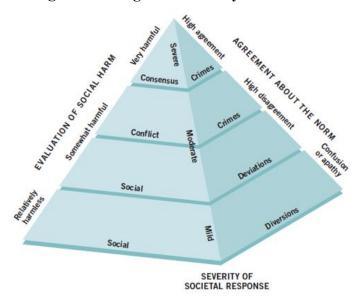
This confusion is further exacerbated within the scope of rapid technological change. The traditional pace of lawmaking has not kept up with the integration of technology into the lives of modern citizens, its reactionary nature leads to a delay in law creation (Wadhwa, 2014). This implies that a de facto legal trough will exist between the crests of technological capabilities and legislative response leaving consumers in a state of confusion about the legitimacy of their actions (Figure 2.1). For example in Canada the Copyright Modernization Act received Royal assent in June of 2012 – thirteen years after Napster file sharing software was first made available (Time, 2001). This delay puts consumers in a situation wherein the behaviours that they had hitherto engaged in legally (or at least, not illegally) are criminalized. In many cases this behaviour – for instance downloading music through file-sharing services – has already become normalized and thus users are more likely to resist attempts to control it.





The fluidity of these moralities and the dissonance between the foundations of the Rule of Law and situations such as those noted above can be illustrated in part through an application of Hagan's (1991) discussion of pluralities in public perceptions of deviance. Specifically, he identifies a hierarchy of deviancies related to the evaluation of public harm, the severity of societal response, and agreement about the norm (Figure 2.2). He contests that the public rarely reaches a consensus when defining deviance except in the most heinous of situations; rather, Hagan argues that most acts of deviance are at best social diversions that have been criminalized due to controlling interests rather than consensus (Hagan, 1991 p. 13). By nature these predictors are largely subjective and will vary from individual to individual over time, space and other contextual elements.

Figure 2.2: Hagan's hierarchy of deviancies



Applied more broadly, Hagan's principles can be utilized to imply that discordant beliefs about the wrongfulness of a given action exist and are subject to an individual or group's reception of it. In situations where the behaviour has been normalized and there is no immediately apparent political reaction, individuals are more likely to evaluate the social harm to a much lower extent (Hagan, 1991). In the case of music piracy, many individuals have engaged in it for years or even decades prior to the creation of regulatory laws and have organically developed a plurality of opinions about its harm. At the very least, this plurality is worth noting because it illustrates how a wide spectrum of beliefs on a single topic, often of opposing philosophies, can simultaneously coexist.

One important caveat noted by Hagan is that the public perceptions on deviant actions within the spectrum of his typology are often overridden to reflect the whims of the strongest individual in a power relationship. Indeed Hagan (1991) illustrates several cases where representatives of the state reacted to deviant actions with disproportionate responses – up to and including violent force – based on subjective pretences about acceptable behaviour within

society (p. 158-165). Hagan further emphasises this fluidity with a discussion of the subjective measures used by the judiciary, the supreme representative of the state, and the differentiation between sentences handed out to persons having committed similar deviancies. Such fluidity parallels cross-jurisdictional responses to electronic music piracy wherein punishment ranges from total exoneration to liabilities in the billions of dollars.

Explanations of music piracy: Paradigmatic shifts

Traditional neoliberal perspectives argue that music piracy undermines the revenue streams of stakeholders and therefore violates codified intellectual property rights (Lessig, 2004). Given the music industry's reported losses over the past two decades and the reactionary legislation that has been created and enforced to some effectiveness, it appears at first glance that there should be no debate over the wrongfulness of copyright violations. Beyond costs, RIAA lawyers and lobbyists have made compelling arguments that music piracy stifles creativity and dissuades artists from advancing their trade, implying that piracy hurts cultural production (Reynolds, 2008). They also add that revenue losses to the recording industry translate into lost jobs, suggesting that piracy also hurts the economy. These arguments manufacture a discourse of harm that aligns with the rule of law and moves music piracy, a flagrant violation of copyright legislation, further up Hagan's typology.

Certainly, some arguments can and have been made to illustrate copyright legislation as a service that protects the rights of content creators or artists. For instance Lessig (2006), an ardent supporter of "free culture" writes that "copyright law, properly balanced, protected creators against private control," and that he "believe[s] that 'piracy' is wrong, and that the law, properly tuned, should punish 'piracy'" (Lessig, 2004, p. 10). In acceding this point however, Lessig (2004) admonishes that the pendulum of copyright enforcement has gone too far, establishing an

environment that "corrupts citizens and weakens the rule of law" (p. 199). The overregulation of individuals who engage in music piracy is a tacit prohibition which criminalizes huge swaths of the population based on loopholes and failings in the criminal justice system. Individuals must either abstain from a normalized behaviour or face the might of a well-funded legal team. To this end, the RIAA has often used massive litigations to emphasize their position on music piracy: lawsuits against young people of little means in the tens or hundreds of millions (and in some cases, billions) (Reynolds, 2008; Knopper, 2009). But, as Lessig warns, these actions produce martyrs and seed public dissent with the application of the law.

These warnings and observations give way to an instrumentalist explanation of wholescale engagement in music piracy; a shift of public sentiment rooted in publicized legal battles against accused music pirates. Namely, the widespread acceptance of this activity can be explained as a *paradigm shift* within Kuhn's (1996) definition; or alternatively as a new field as explained by Bourdieu (1975). Both authors discuss the implications of radical changes to established systems and the fallout from these changes; certain elements of their thought can be identified within the extent of music piracy distributions on post-secondary campuses.

For example Kuhn (1996) wrote of "revolutions as changes of world view" (p.111) indicating that new interpretations of scientific observations manifested themselves into a new paradigm of scientific thought. He explains these revolutions of thought as moments in scientific history where drastic changes in methods, interpretations, and essential understanding emerge and eclipse the old ways (Kuhn 1996). This may be best illustrated by the opening passage of Kuhn's (1996) section on revolutions wherein he observes that "led by a new paradigm, scientists adopt new instruments and look in new places. Even more important, during revolutions scientists see new and different things when looking with familiar instruments in

places they have looked before" (p.111). An important feature to Kuhn's (1996) work, then, is that reinterpretations of existing concepts without change to the tools of the interpreter can nonetheless revolutionize perspective.

So does the widespread ignorance, or disregard, of intellectual property laws indicate a revolution of thought? Certainly some similarities between this phenomenon and Kuhn's (1996) body of work can then be drawn. For instance, Ingram and Hinduja (2008) establish that most people who participate in music piracy acknowledge that what they're doing is wrong by sociolegal standards. This falls in line with Kuhn's (1996) insistence that "what a [person] sees depends both upon what [they] look at and also upon what [their] previous visual-conceptual experience has taught [them] to see" (p.113). Similarly the preponderance of high-speed Internet access predates by far the explosion of activity in distributing illegitimate music files online (Dutton et al. 2003), suggesting that it was not simply new tools that revolutionized perspective. On the same note the overnight success of Shawn Fanning's Napster certainly illustrates a new instrument by which people could reconsider the established systems of laws guiding the use of music (Time 2000); many of those that participate in this phenomenon indicate that they do so to sample music before buying it (Frank et al 2001). These observations exemplify several of the essential contributions requisite of paradigm shifts and give much credence to Kuhn's (1996) theory.

However one mitigating caveat exists in Kuhn's (1996) work that distances his framework rather significantly from the topic of widespread participation in music piracy amongst post-secondary students. Central to the paradigm shifts outlined by Kuhn (1996) are what he termed a *gestalt switch* (p. 97), a moment of intense realization - one might draw comparisons with Archimedes' eureka moment. Kuhn (1996) further elaborates, writing that:

No ordinary sense of the term 'interpretation' fits these flashes of intuition through which a new paradigm is born. Though such intuitions depend upon the experience, both anomalous and congruent, gained with the old paradigm, they are not logically or piecemeal linked to particular items of that experience as an interpretation would be. Instead, they gather up large portions of that experience and transform them to the rather different bundle of experience that will thereafter be linked piecemeal to the new paradigm but not the old. (p.123)

For Kuhn (1996) the role of the gestalt switch is imperative in the formulation of new paradigms of thought. Were new bodies of thought to develop slowly, over prolonged periods of study and observations, they would simply be a continuation or evolution of the existing bodies of thought. Immediate and radically changed interpretations are momentous in bringing about revolutions of world view. This is where Kuhn's (1996) theory departs from viability with the phenomenon of music piracy. Although one might consider Napster as a gestalt switch, it in fact emerged from a deep-seeded movement that had been in existence for at least the five years prior to 1999 (Okin 2005). This is not to say that the potential elements for a revolution of perspective are in place, but rather that an application of Kuhn's (1996) theory is not viable at this moment.

An application of Pierre Bourdieu's (1975) discussion of fields might also be considered here. Although he has been a prolific author covering multiple topics, Bourdieu's 1975 paper on "The specificity of the scientific field and the social conditions of the progress of reason" presents an engaging argument on the emergence of new fields of thought through struggle and strategy. Much like Kuhn (1996), Bourdieu (1975) acknowledges that the emergence of new ideas based on established principles of observation gives rise to revolutions within communities; however, Bourdieu (1975) refers to these revolutions as new fields of thought

(p.19), indicating that some basic similarities are maintained. He further differed from Kuhn (1996) by acknowledging that "orderly revolutions" (Bourdieu 1975, p. 32) can occur where new fields of thought can slowly emerge and separate from existing fields without much conflict. A driving force behind the development of new fields is resistance against the monopoly of scientific authority that to Bourdieu (1975) is interchangeable with the monopoly of scientific competence. The crux of his argument is that new fields of thought evolve out of struggles for control over discourse within the engaged community and resistance to notions of "established scientific order" (Bourdieu, 1975, p. 29).

When applied to the topic of music piracy, Bourdieu's (1975) work provides a unique interpretation. While his work differs from Kuhn (1996), the basic premise can be repeated in that new and negative attitudes about intellectual copyright laws are emerging as the new and dominant field of thought in contrast to law-abiding perspectives (Bourdieu 1975). Bourdieu (1975) has added to this argument with his paper on the sociology of science. A clear example drawn from his work is Bourdieu's (1975) suggestion that orderly revolutions can take place in the development of new fields (p.32). This runs contrary to the primary tenet of Kuhn's (1996) work, as mentioned above, and goes a long way to illustrate how the gradual changes witnessed throughout the last three decades of the Internet revolution may also be interpreted as a revolution of thought. Bourdieu's (1975) combative stance may also be applied to this phenomenon. A response frequently cited by individuals who participate in music piracy was condemnation of the condemners (Ingram and Hinduja 2008). Bourdieu's (1975) work differs from Kuhn (1996) in that he has outlined a much more organic continuum of change conceptualizes music piracy as a revolution of thought.

However these comparisons noted above omit a central guiding principle in Bourdieu's (1975) theory: that new fields emerge out of struggles for dominance (p. 19). That is, Bourdieu (1975) has illustrated that actors are motivated in revolutions by profit. Rather than rallying around a central and shared belief, to Bourdieu (1975) new fields emerge because people seek to become the dominant figure to fulfill private interests. As Bourdieu (1975) notes "the transmutation becomes more complete as each individual agent's private interest in fighting and dominating his competitors in order to win their recognition comes to be equipped with a whole set of tools which endow his polemical intention with maximum efficacy by giving it the universal scope of methodical control" (p.33). While a legitimate ideal may be the initial driving force, Bourdieu's (1975) opinion is that actors choose to validate this ideal in hopes that the lack of competition will provide them with a higher social standing in the practitioners of this line of thought. Given the highly communicative and corroborative nature of music-trading communities (Chiang and Assane 2008), Bourdieu's (1975) thought simply does not line up with the premises for my research.

An alternative line of thought can be found in the work of Jurgen Habermas (Finlayson 2005). Whereas Bourdieu (1975) and Kuhn (1996) rely on revolutionary action as a lynchpin for sociological change, Habermas (1991) elucidates a theory of change based on collaborative action within the boundaries of society. He argues that communicative action, the process by which perception of meaning is shared, plays a central role within the dissemination of novel ideas and perspectives that influence one's lifeworld (Finlayson 2005). The lifeworld, which is the culmination of a person's experience in culture, social expectations, habits, and other non-institutionalized aspects of daily life, provides the boundaries for each actor's horizon of perception (Finlayson 2005). As such, the lifeworld and its horizon can be considered the

boundaries by which a person lives their life, most often in accordance to the official rules, such as laws, and unofficial rules, such as taboos, that have been set out for them (Finlayson 2005). Were a person to be exposed to continual alternatives they would eventually take up those options as a steering mechanism in their actions, altering their lifeworld. By doing so not only have they encountered change but also have they been empowered with the ability to elicit change in their peers (Habermas 1991).

A clear demonstration of this line of thinking is present in Habermas' (1991) writing. When addressing the debate of communicative versus subject-centred reason, Habermas (1991) stated that

Fundamental to the paradigm of mutual understanding is... [the] performative attitude of participants in interaction, who coordinate their plans for action by coming to an understanding about something in the world. When ego carries out a speech act and alter takes up a position with regard to it, the two parties enter into an interpersonal relationship... Whoever has been trained in this system has learned how, in the performative attitude, to take up and to transform into one another the perspectives of the first, second, and third persons (p.297-298).

Habermas' (1991) theory relies on group dynamics to bring about change.

Communicative action is a result of group interaction, wherein new information and ideas are either accepted or thrown aside by members of society depending on the ability of its perpetuators to purvey the importance of accepting new ideals (Finlayson 2005).

Despite its applicability, several drawbacks have dissuaded me from using Habermas' work as a guiding framework. As laid out in Frank Webster's (2006) review, Habermas has taken an extremely macro and euro-centred perspective on societal change; his principles rely heavily on

theoretical perspective, and seem almost utopian (p. 199). That is, his explanation of communicative action lacks any solid consideration of the actors themselves, and instead assumes a level of harmony in all settings.

Each of these perspectives allow for an interpretation of wide-scale engagement in online deviance by constructing the phenomenon as a revolution of thought. Whether depicted as a paradigm shift, an emergent field, or as a communicative action, the interchange of non-institutional knowledge can be viewed as a catalyst for revolutionizing populist constructions of appropriate behaviour in contrast to implied consensus about the illegality of a given action. In a general sense then, Kuhn's, Bourdieu's, and Habermas' contributions help to understand how so many people can willingly violate copyright traditions without fully abandoning the law. Their perspectives suggest that a discordant morality about popular music consumption has transcended – or precluded – legalistic definitions about their rights to using it. These perspectives have commonly been applied in both populist and scholarly discussions of music piracy, indicating that a paradigm shift has occurred about what constitutes an asset or property.

While a discussion of paradigmatic shifts on copyright provides some context for the discord between public morality and the law, these perspectives assume a somewhat homogenous acceptance of these new constructs. This assumption has been challenged in recent studies of music piracy that illustrate heterogeneous perspectives about its legality among pirates, related to social, technical, economic, political, organizational, informational differences amongst actors (Popham, 2011; Hinduja, 2012).

Explanations of music piracy: A criminalized environment

As an alternative hypothesis, then, it's worthwhile to consider music piracy as a result of criminogenic factors rather than revolutions of thought and action. To this end David Wall, one of the foremost scholars in online misbehaviours, (2005) defined the "Internet as a Conduit for

Criminal Activity." His work provides a basis from which music piracy can be plotted in relation to the criminogenic factors manifested in the relative privacy/anonymity (for both aggressor and victim) begat by the Internet revolution. This theory contends that the anonymous nature of the Internet, allowing users to partake in egregious activity without revealing their personal identity, masks the perpetrator from detection and also distances or anonymizes victims in a similar manner. Like Milgram's work from forty years earlier (Milgram, 1974), Wall found that individuals were far more likely to act outside of their moral boundaries when their proximity to the victim (in this case, separated by layers of technology *and* geographic space) was increased: "there is much confusion over who are the victims of cybercrime and, in some cases, over the manner of their victimization and how much weight to give it... the harms done to them can range from the actual to the perceived" (p. 85).

Taking a normative approach, Wall (2005) develops a matrix featuring three ways of defining these crimes: traditional, commonplace crimes that have been augmented by the Internet; hybrid crimes that existed in concept but have become familiar because of the Internet; and new opportunities which did not exist prior to widespread participation in the Internet (p. 82-83). Wall (2005) further introduces central concepts such as the transformative effect of the Internet in developing new communities supportive of various transgressions, and the white collar criminality of online deviance.

This latter point has been explored to some effect, connecting the moral ambiguities discussed above with criminological perspectives on white collar crime. For instance, Green's (2006) attempt to identify the tenets of white-collar crime led to the author's suggestion that its moral and legal ambiguities validate the inclusion of intellectual copyright violations. Like Hagan (1991), Green (2006) suggests that "there exists a gap between what the law regards as

morally wrongful and what a significant segment of society views as such," (p. 24) and argued that this gap aids the development of a relative culture supportive of the deviance. This notion is also presented by Wall (2007) who discussed the influence of fuzzy boundaries on the persistence of cyber deviance. Citing a lack of public awareness on the impacts of electronic transgressions, Wall wrote that "cybercrime is little different to other invisible or hidden crimes such as white-collar crime" (p. 17). Indeed, the second proposal of this section is that downloading music be considered a white-collar crime. Given the current lack of certainty about the definition, and for that matter pursuit, of white-collar crime, it seems that Hagan's (1991) conflict crime label fits nicely.

Using Sutherland's (1983) initial definition, white collar crime was explained as "a crime committed by a person of respectability and high social status in the course of his occupation" (p. 31). In essence, Sutherland argued that people take advantage of their elevated position within an organization to manipulate procedures in their favour. He reinforced this notion by explaining that not all criminal acts are considered illegal, implying that taking advantage of procedure is in itself deviant. Furthermore he argued that the sheer volume of white-collar crime in business obscures its deviance – people have become accustomed to improper procedures and assume they are part of common business practice (Sutherland, 1983). Analogous comparisons can be drawn between Sutherland's observations and the issue at hand: much like white-collar criminals exploiting their workplace, downloaders take advantage of their access to the Internet for personal gain (Popham, 2011). Similarly, despite a lack of specific legal guidelines, downloaders frequently acknowledge that collecting popular music without paying for it is not viewed as moral (Chen, Shang, & Li, 2008). Furthermore the sheer volume of participation obfuscates the

actor's gauge of wrongfulness, instead replacing it with assumptions based on relative popular opinion (Chen, Shang, & Li, 2008).

The notion of music downloading as a white-collar crime has been further elucidated by Davies, Francis, and Jupp (1999) who identify the concept of invisible crimes. They explain invisible crimes as ones with a of lack immediate harm; lacking statistical, theoretical, and research development; no formal control or political attention; and fail to produce moral panic. This concept is immediately applied to both white-collar crime (Croall, 1999) and also cyber deviance (Wall, 1999), intrinsically linking them through the veil of ambiguity surrounding these deviations. As explored above, the closed door modus operandi behind both types of deviance and the difficulty experienced when trying to measure public harm significantly diminishes their presence on the spectrum of criminality, and ultimately encourages participation and systemization of the process (Croall, 1999).

Two significant challenges arise when attempting to label music downloading as a white collar crime. One is that the application of Sutherland's (1983) definition of white-collar crime is limited by the author's original intentions. Sutherland primarily sought to identify the wrongdoings of high-status businessmen in supervisory roles rather than define a general polemic for non-traditional forms of deviance. As a result some ambiguity remains as to what the term white-collar crime means (Pontell & Rosoff, 2008). A second challenge is the use of the word crime. Application of this label criminalizes an activity that has not yet been addressed as such by the Government of Canada – the most recent legislation approaches music piracy as a civil matter.

Fortunately a host of research and debate has developed over time to ameliorate these concerns. To address the first concern, Edelhertz (1970) approached the spirit of Sutherland's writing rather than the content:

White-collar crime is democratic. It can be committed by a bank teller or the head of his institution. The offender can be a high government official with a conflict of interest. He can be the destitute beneficiary of a poverty program who is told to hire a work group and puts fictional workers on the payroll so that he can appropriate their wages. The character of white-collar crime must be found in its modi operandi and its objectives rather than in the nature of the offenders. (p.4)

Edelhertz (1970) further adds that white-collar crime is "covert, and not immediate in impact" (p. 1), and ultimately defines this form of deviance as:

An illegal act or series of illegal acts committed by nonphysical means and by concealment or guile, to obtain money or property, to avoid the payment or loss of money or property, or to obtain business or personal advantage. (p. 3)

This definition shifts white-collar crime from action to concept. Edelhertz's (1970) explanation maintains many of the concepts addressed above while also expanding to include any person who takes advantage of a privilege to illegitimately develop personal gain. Shapiro (1990) revisited Edelhertz's (1970) concept in 1990 and concluded that white-collar crime "means acknowledging that the focus on the offender has hindered our understanding of the deviant act ..." (p. 362) and that sociological research should "[explore] the modus operandi of their misdeeds and the ways in which they establish and exploit trust" (p. 363). Using Shaprio's

(1990) terminology removes status-based prerequisites of white-collar crime and opens the door for investigation of music piracy within a white-collar theoretical framework.

Addressing the second concern listed above, Pontell and Rosoff (2008) have argued that computer mischief be labelled "white collar delinquency." Their argument is premised on the idea that the networking of society has created a new, under-policed domain in which adequately skilled persons can actively participate in trespass against other connected persons – or organizations. They further argue that participation in these sorts of activities requires access to technologies, knowledge, and spare time, limiting engagement to a relatively privileged group. Pontell and Rosoff (2008) suggest that abuses of privilege of this type fulfill the central tenet of white collar crime. They develop their model of white-collar delinquency by stating that "white-collar delinquency is outside the traditional criminological boundaries of juvenile delinquency that concentrate on lower class perpetrators and their acts, including gang behavior and illegal drug use" (Pontell & Rosoff, 2008 p. 150).

Pontell and Rostoff (2008) have contested that pre-existing notions of youth in conflict with the law inhibit the application of adult-oriented criminological terms to young persons. However, the authors maintain that "...when youthful offenders mimic the economic crimes of adults through the use of computers and cause significant financial and personal damage, they are engaging in behaviour that essentially falls within the rubric of white-collar crime" (Pontell & Rostoff, 2008 p. 150). Given these arguments, the term "white-collar delinquency" could be applied to the behaviours of music piracy. That is, downloading music is an activity that a relatively young and privileged group of people engage in, one which requires specialized access, is under-recognized and under-policed, and causes at least some damage to other people or organizations.

The white-collar crime approach to studying music piracy leaves a notion of exclusivity. That is, it suggests that the Internet's criminogenic features are related to a privilege of some sort. While the Internet was an expensive novelty for many years, recent studies have demonstrated significant uptake of usage and a penetration rate of 83% in Canada. This statistic challenges any sense of privilege amongst users. Further, recent studies have illustrated that music piracy transcends generations, race, and other demographics (Hinduja, 2005; Popham, 2011; Daschuck & Popham, 2013). The third, and most damning challenge is that Wall and the other theorists mentioned construct the Internet as a tool for social exchange rather than as a social setting in and of itself. By taking this approach they fail to account for representation of the self in a peer-community and its impacts on deviance. This is a primary concern for the current study and so directs us to explore additional perspectives that place greater significance on the social world constructed online. These criticisms aside, the notions of the criminogenic environment, the invisible crime, and under-recognition provide a contextual understanding of music piracy at the agency level.

Explanations of music piracy: The carnival of the gallows

Michel Foucault's (1995) concern with the process of legitimization provides a third theoretical avenue for considering music piracy. Expressed in *Discipline and Punish: The Birth of the Prison*, Foucault (1995) describes the development of obedience in populations as a response to state-imposed sanctions and punishments. In his historical analysis Foucault (1995) points out that early modern attempts to subjugate populations were often done so on a knife-edge of risk: The jocular, carnivalesque atmosphere surrounding public executions could develop into rebellion stemming from the martyrdom of those who were meant to be punished. Thus for Foucault (1995), the "spectacle of the scaffold" (p. 32) describes moments of sanguine collectivism espoused by individuals during periods of discontinuity. In a modern sense, the

interactions of actors within nascent or incongruous social structure may be replicated in the communicative world of the web 2.0. Individuals are actively violating established legal dominance by downloading music and other copyrighted materials in clear view of the authority without fear of reprisal, while acknowledging that it is a wrongdoing (Cesareo & Pastore, 2014). While the alternative ideas explored above provide some insight into how this occurs, they do not allow for appreciation of the Internet as a fully immersive community.

This idea begins with a challenge to the notion that we enjoy a free Internet. Rather, consider for a moment the possibility that Foucault's (1995) panoptic state (p. 195) has manifested as the Internet and is therefore complicit in the construction of docile bodies. There is certainly strong evidence to make this case: Edward Snowden's revelations about the depth of snooping by the National Security Agency (NSA) are illustrative of this contention. Indeed Wall (2007) articulates that a collective force of Internet monitors exist, ranging from semi-official website representatives right through to public police organizations. Wall winds up his discussion of online policing by noting that there is a very real drift toward ubiquitous law enforcement and ubiquitous crime prevention online, adding:

The long-standing myth that the Internet is a lawless and disordered environment – a place where people go for a moral holiday – continues to endure but is wholly mistaken. Rather, the evidence points to the contrary ... there exists an order-maintenance assemblage – almost a compliance framework – that intervenes in many different ways and for many different reasons to police behaviour on the Internet. (p. 184)

Further, Foucault's (1995) three primary means for the production of docile bodies seem to be fulfilled. The notion of hierarchical observation, an underlying knowledge that others may

have the ability to observe one's behaviours at any time, has been demonstrated – for instance, through the notice-and-notice tact of identifying music pirates. Second, the condition of normalized judgement – ranking based on arbitrary conditions to promote inter-personal comparisons – can be demonstrated by any number of measures. Normalized judgement might be expressed as Facebook likes, retweets, or how frequently one shares a copyrighted file. Third, Foucault stresses the importance of the examination; a culmination of hierarchical observation and the normalizing judgement "that makes it possible to qualify, to classify and to punish" (p.184). Turning the individual into an ordinal case representative of their life -history transforms "visibility into the exercise of power" (p.185) and affords this power to authority by reducing individuals into cases. While not directly linked to state-controlled authority, the establishment of cases have long been present in online interaction. For instance, recording industry-led litigious campaigns against music sharers presents a poignant illustration of how the ordinary individuality of Internet users may be normalized and observed based on selective factors.

Yet despite well-documented public awareness of the online monitoring powers of authorities and the apparent capacity of the Internet to produce docile bodies, there seems to be very little curbing of illicit online behaviour, contravening the predicted outcomes of a panoptic state. This begs the question, then: why? In its simplest terms, my contestation here is that the state of authority in the online world has not reached the evolutionary apex defined by Foucault as panopticism. Rather, the current state of affairs more closely matches some of the earlier states of discipline in his discussion. While it seems rather ironic given the high-tech nature of this environment, discipline and punishment in the online world remains akin the preenlightenment era of torture that opens Foucault's discussion.

To this end I will provide three examples reflective of the history of punishment provided by Foucault to illustrate why the Internet is currently in this state. First is the "supplice" (p. 33) or punishment to a horrible degree, outlined by Foucault in an historical sense but also present in modern reactions to online transgressions. Foucault identifies supplice as the dread outcome of findings of guilt in a legal setting – the surety that individuals who avoided death in their sentencing would nonetheless face a painful outcome relative to the perceived severity of their offense (p. 33). The abject certainty that one would face some form of arbitrary, painful punishment has carried over into the nature of the Recording Industry Association of America's litigious campaigns against suspected file sharers. While exact figures are unknown, case filings provided by the RIAA in a recent class-action lawsuit indicated that 18,000 civil cases had been filed against individual file-shares in which all but one were settled without litigation for approximately \$3,000-\$5,000 each (Jones, 2009). While the modern legal system has removed physical pain from sentencing practices, the financial burden faced by the accused is certainly a painful experience. Further capitulating this notion is evidence from 2006 federal tax documents that the RIAA spent approximately \$19 million in legal fees to ensure that these punishments were meted out (Jones, 2009).

A second principle central to Foucault's (1995) depiction of pre-enlightenment punitive methods is the role played by the spectacle scaffold (p. 32). To him, pre-enlightenment forms of discipline and punishment sought to affirm the supremacy of decision makers through the execution of force (p.49). Again, this concept clearly translates to current legal practices. While the RIAA generally pursues relatively nominal fines against individual transgressors they make it a mission to turn larger cases in spectacles. A case in point may be a lawsuit filed against U.S. citizen Joel Tenenbaum by the RIAA on behalf of several media companies. As a student, Mr.

Tenenbaum received a \$3,500 fine from the RIAA for downloading and distributing copyrighted audio files via the popular P2P client Limewire; however, due to his financial situation he was unable to pay the fine and the case eventually made its way to the courts. Ultimately Mr.

Tenenbaum was held liable for damages of \$22,500 per song with a total obligation of \$675,000 (Sternberg, 2010). This execution of force, much like a public execution, served the purpose of representing the power held by authorities in the pursuit of online deviancy.

Finally, Foucault (1995) identified the importance of generalized punishment as an element opening the path toward a panoptic state. Referring to the establishment of scheduled punishments for criminal actions, he stated that "[the] 'ideological power' which, partly at least, will remain in suspense and will be superseded by a new political anatomy, in which the body, once again, but in a new form, will be the principal character" (p.103). Hence this "new art of punishing" sought to discipline the individual through physical harms by passive means (e.g. by detention) rather than active means (e.g. torture, death). This reconsideration of what punishment could be would prove to be the catalyst for the means to produce docile bodies and ultimately a panoptic state. The relevance here to online deviance and particularly file-sharing is that prescribed and generalized schedules for punishment do not exist for these transgressions. This is not to deny the fact that efforts have been made. For instance, the U.S. Digital Millennium Copyright Act of 1998 and the European Union Copyright Directive of 2001 implemented extensions of copyright protection to the electronic domains in the hope that it would empower copyright holders to better protect their intellectual property; however, these pieces of legislation did not seek to regulate by generalized punishment but rather enabled civil law to better address technological changes.

By replicating torture in the march to control music piracy, the state and the music industry may have instead produced a set of conditions that provoked the public to further engage in this activity. That is, the spectacle of the scaffold may have failed to communicate a message that piracy was a violation against the state. The "executions" of the above-mentioned transgressors clarified avenues of escape for would-be music pirates:

In these executions, which ought to show only the terrorizing power of the prince, there was a whole aspect of the carnival, in which rules were inverted, authority mocked and criminals transformed into heroes.

They were empowered with the tools of avoiding capture based on misfortunes of a few specific cases. In doing so, industry-instigated and state-sponsored responses accelerated the incorporation of piracy normalization to a greater or lesser extent in online group identities. A central concept to the proposed research is the role played by peer groups and communities in the development of a deviant personality. Manuel Castells' (1997, p. 6) discussion of "The Construction of Identity" in the second of his three volume manuscript entitled *The Information Age: Economy, Society and Culture* has introduced some valuable notions on how a deviant online community can emerge. Castells (1997) argues that

Identities can... be originated from dominant institutions, they become identities only when and if social actors internalize them, and construct their meaning around this internalization... Identities are stronger sources of meaning than roles, because of the process of self-construction and individuation that they involve. (p. 7)

Castells (1997) then defines three separate but chronological origins of identity building; legitimizing identity, resistance identity, and project identity (p. 8). Legitimizing identity is that

which has been introduced by dominant institutions to reinforce and extend their dominations. Resistance identity has been generated by actors whose positions are devalued by dominant institutions, which in turn leads to "trenches of resistance and survival" (p. 9) Finally Project identity occurs when actors build a new identity, redefining their position in society, and generally emerges from previous trenches of resistance (Castells 1997, p. 7-9).

Of primary interest to this particular study is Castells' (1997) second premise: that a community of online deviance amongst people who 'inhabit' the internet, netizens, has emerged as a resistance identity (p. 8). As outlined by the author, this identity leads to the formation of communities and is perhaps the most important type of identity building in modern western societies (Castells 1997, p. 8). Castells (1997) states that resistance movements lead to the individual's construction, through collective ideals of resistance, a "defensive identity" that is developed in response to boundaries defined by the controlling group (p. 9). Castells (1997) further argues that globalization and the information age has led to the rapid dissolution of shared identities, the keystones of dominant institutions, and in their place resistance identities, in the form of communities, have emerged whereby unifying values or proactive social ideals provide the central tenet for their existence (p. 355-356).

One's adherence to these groups, and moreover their communication and reification of these groups in other individuals, will be explored more closely in the following chapter.

CHAPTER 3 THE NETWORK SOCIETY AND SELF-EFFICACY

Introduction

As discussed in chapter one, the principle underlying assumption to this study is that music piracy is a function of the networked society. Outlined by Castells (1997) through three volumes, the network society is a dynamic and global series of interactive horizontal networks of communication. These networks are introducing new social movements and groups relative to user interests (for example, the popular website Pinterest). While most of these networks align with traditional societal roles (e.g. acting as proxy for interest clubs or hobby groups), many others have been catalyzed through resistance to traditional or enforced socio-legal norms (e.g. providing resources for accessing criminalized vice). Regardless of their intentions or relations, each of these online networks operate as a grassroots tool for inter- and intra-personal communication of new ideas and concepts developed through shared interest.

Castells' (1999; 2009) theories of the network society and communication power serve as the primary underpinnings for this study, especially hypothesis one. The purpose of this chapter is to explore Castell's perspective within the context of music piracy, providing clarity as to why widespread music piracy is not a revolution but rather a continuation of long-established social processes and the result of drastic changes in modern communication. Hence the substantive portion of this chapter discusses of the rapid indoctrination of the internet into 21st century society, a process called "informationalisation" (Castells, 1996, p. 21) and its contribution to the so-called network society. One of the outcomes of this process has been the development of new means of mass communication that empower internet users with the means to broadcast opinions which may be contrary to those of the state. Further, it simplifies the process of locating alternative perspectives and provides the means by which to virtually congregate around ideas,

forming networked societies. The communication herein provides internet users with the tools to develop identities reflective of group ideals, establishing new interpretations of social action.

Collectively, these ideas inform hypothesis one, that individuals will develop "segmented, customized mass media" (p. 2) relative to their personal experiences online. For instance, the notion of mass self-communication entails that individuals can easily locate individuals who share their perspectives, thus providing a potential indicator for testing the existence of an online plurality. Further, Castells' theories provide some insight into hypotheses two and three. As identified in discussion of the network society (below), stronger and more closely tied networks have a concentrating effect on individual formation; this may mirror the notion that social learning is amplified herein. Similarly, the basis of information sharing as the purpose for network formation lends credence to the hypothesis that different approaches to neutralizing deviant behaviours may be taken up by different actors relative to the type of online experience they have.

The second part of this chapter addresses the most commonly encountered criticism of Castells work, his reliance on meta-analysis to the detriment of agency-side dimensions in his work (Webster, 2006). Castells has acknowledged this and encourages researchers to extend the network society narrative (Castells, 2009, p. 430). To this end, a consideration of the role of self-efficacy in constructing one's online identity is warranted. Namely, building on the assumption that access to networked societies informs the reconstruction of identities, measures of self-efficacy can be used to determine the type of communities that an individual will access. In doing so it provides means by which hypothesis one (Individuals with different technical capacities experience and trust the Internet in different ways) might be tested.

Mass communication and online behaviour

As outlined by Tapscott (2009) and Okin (2005), the Internet has rapidly become a primary resource for communication amongst youth. Fearing for the brains of the net generation, Carr (2010) stated that

the Internet is a machine designed for the efficient, automated collection, transmission, and manipulation of information, and its legions of programmers are intent on finding the 'one best way' – the perfect algorithm – to carry out the mental movements of what we've come to describe as knowledge work. (p. 95)

Carr (2010) makes a concerted effort to illustrate how young people living in North America have adopted the Internet as a primary tool for learning, at the cost of non-digital educational tools. While he personally bemoans this change, the true message from his writing lies in the medium: the Internet has replaced traditional means of knowledge transmission and communication.

As expressed by Carr (2010), the rapid assimilation of Internet communications into the daily lives of young people is unprecedented. Unlike print or broadcast media, the World Wide Web has become an accepted form of personal and societal interaction in an extremely short period of time. This was also noted by Poe (2011), for instance, who wrote that "in the span of a few years, it [the Internet] covered the globe and penetrated every nation on earth" (p. 219). In explanation he suggests that the Internet has fulfilled a long sought-after quest for virtual reality, which includes eight appealing characteristics: accessibility, privacy, fidelity, volume, velocity, range, persistence, and searchability. Poe (2011) concludes his discussion about human interaction on the Internet by suggesting that a universal Internet Culture, populated by numerous subcultures, will inevitably permeate all of the world's nations. However his discussion of

culture ends abruptly, maintaining Carr's (2010) stated concern that the rate of integration of connected technologies has outpaced the production of knowledge about their impact on the personal and social conscience.

Manuel Castells has addressed this gap with a number of theoretical contributions that relate to what he calls the "Network Society" (Castells 1996). At the core of his theory is the concept that a networked or electronically inter-connected society has emerged through the suffusion of Internet communication technologies into social occurrences via the information revolution. Globalized networks of communication, combined with capitalist actions of restructuring brought on by increased exposure to global competitors have led to a rapid expansion and widespread acceptance of new communication technologies by organizations in search of profit (Castells 1996). Castells (1996) uses a comparison between industrial society and what he calls "informational society" to illustrate this capitalist reliance on technology:

The term informational indicates the attribute of a specific form of social organization in which information generation, processing, and transmission become the fundamental sources of productivity and power, because of new technological conditions emerging in this historical period. My terminology tries to establish a parallel with the distinction between industry and industrial. An industrial society... is not just a society where there is industry, but a society where the social and technological forms of industrial organization permeate all spheres of activity, starting with the dominant activities and, located in the economic system and in military technology, and reaching the objects and habits of everyday life. (p. 21)

Thus the process of 'informationalization' is brought on by the new informational capitalism (Webster 2006). This development relies heavily on information networks to conduct affairs at

all levels of business, from production to marketing, and in doing so perpetuates and drives the collective connectivity of societies (Webster 2006). That is, for one to participate and profit within a nation reliant on informational capitalism, they must gain access to and make use of information networks; and by doing so they reinforce and drive the principles of an informational society as set out by Castells (1996). This participation gives rise to new opportunities, and as outlined by David Wall (2005) above, these opportunities include new deviant identities and forms of deviance.

Although political systems regulate the processes necessary for perpetuating informational societies, their actions and policy decisions are primarily concerned with legitimizing the capitalist division of labour that first established their power (Castells 1996). In taking this stance actors lose their sense of association with the standing political system and instead search for communities that reinforce their concept of identity (Castells 1999). Castells (1999) believes that maintenance of the existing power structure is essential in identity creation because it gives actors a point to rally around, or more importantly, rebel against. He writes that in the networked society "political systems are engulfed in a structural crisis of legitimacy, periodically wrecked by scandals, essentially dependent on media coverage and personalized leadership, and increasingly isolated from the citizenry" (Castells, 1996, p.6). This theory is exemplified by my research topic whereby policies supporting the recording industry do not take into account the citizenry; this leaves actors feeling isolated from government processes and they seek out alternative groups that support their digital identity (Burkart, 2010).

Castells revisited identity development in 2009 with *Communication Power*. Within this text, Castells (2009) suggests that an important aspect of identity formation in networked societies is communication of the self. His theory of "mass self-communication" (p. 58) proposes

that a new paradigm of media has emerged, empowering actors to transmit their personal views en masse via interactive forms of media. The emergence of new technologies "began to take place in the first decade of the twenty-first century and led to the gradual formation of a new multimedia system" (Castells, 2009, p.59).

This media system and its mass-diffusion of the self has prompted "horizontal networks of interactive communication that connect local and global in chosen time" (Castells, 2009 p.65), proliferating social spaces on the Internet that augment social interaction and the development of common ideals. In an earlier paper, Castells (2007) suggested that mass self-communication via the Internet empowers actors to deviant actions (for example, participation in peer-to-peer music swapping services) because they no longer view their deviance as an individual act but rather as a reinforcement of community ideals. To this end, Burkhart (2011) discusses the rise of cyberlibertarian communities that "transcend the inherited ways of the music business ... to inject recognizable democratic values of broader participation and access into online music cultures" (p.21).

This approach provides significant inroads for evaluating online socialization and its impact on individual perceptions of deviance. The horizontal networks developing from online interaction suggest a sense of relative deprivation amongst users and contribute to one's willingness to accept new definitions of deviance (Kanin, 1985). Castells (2009) illustrates how the commercialization of various networks, such as YouTube, Facebook, and other virtual communities drive consumerism based on one's perception of other participant's virtual attainment. Continued exposure to other's media collections (i.e. playlists, content creation, etc.) simultaneously drive users to develop similar collections and also accept their counterparts' means of attaining said collections.

Network Society

At the core of Manuel Castells' theory is his belief that a Network Society has emerged through the suffusion of Internet Communication Technologies into society via the information revolution (Castells, 1996). The concept of Network Society itself is not very well defined by Castells (Webster, 2006); in fact he does not even attempt to provide a definition until the closing pages of his first volume on network societies (Castells, 1996, p. 469). Rather than providing a strict explanation of the concept, Castells (1996) connects a number of ideas together throughout this section, implying that combined they create the society he envisions.

Networks consist of what he calls "interconnected nodes" (Castells, 1996, p. 470), and these nodes consist of any person, organization, or technology that purvey the global interconnectedness of societies; a node is defined by the network within which it lies. Castells (1996) writes that "what a node is, concretely speaking, depends on the kind of concrete networks of which we speak. They are stock exchange markets... they are national councils of ministers and European Commissioners... They are coca fields and poppy fields... They are television systems..." (p. 470). Networks themselves, Castells (1996) contests, are "open structures, able to expand without limits, integrating new nodes as long as they are able to communicate within the network, namely as long as they share the same communication codes" (p. 470). To him the term network incorporates an interconnected community centered around some form of identity (Castells, 1996, p. 468). An important feature of networks are their ability to adapt, which Castells (1996) illustrates by writing "a network-based social structure is a highly dynamic, open system, susceptible to innovating without threatening its balance" (p. 470).

An important concept that the author discusses is that if two nodes are within the same network, the intensity and frequency of their interactions will be greater than nodes of different

networks (Castells, 1996). This "topology" (Castells, 1996, p. 470), then, dictates that smaller local networks develop stronger levels of association, and adds support to the notion that a culture of music piracy is not an indicator of revolutionary undercurrents but rather a traditional conveyance of deviance occurring in a new setting. Tech-savvy actors frequent a relatively limited pool of online resources, providing the opportunity to develop a strong network of communication (Ward and Gryczynski, 2008); rather than developing a new field of action, they are making use of a new network to purvey old concepts of deviance. When summarizing his discussion on networked societies, Castells (1996) says as much, stating that "the convergence of social evolution and information technologies has created a new material basis for the performance of activities throughout the social structure" (p. 471).

The Development of Identities

Here again is significant overlap with Burkart's (2010) thesis of the online "music lifeworld." Informed by Habermas' colonization thesis, the music lifeworld is an actor's summative verstehen of popular music and its distribution. Burkart (2010) argues that this lifeworld has been colonized by corporate interests to accept existing modes of production and distribution as normal. Given these assumptions, the corporate interests of music industry seek to maintain their monopoly on distribution by utilizing their capital to enforce copyright protection. To begin, Burkhart (2010) explains that:

[Digital Rights Management] changes the power relationships among fans, labels, artists, and frequenly unknown or anonymous software companies to the extent that fans are continually giving up rights in exchange for access (p.41)

From here Burkart identifies emergent oppositional movements as responses to colonization and moreover, as forms of counter-hegemonic radical media activism:

Music and cyberliberties activists are engaged in a process of identifying risks to existing communication practices of the technoculture and the online music lifeworld that are worth keeping, singling out corporate strategies or trends in industry and policy that are worth challenging or rejecting. They see colonizing encroachments into the music lifeworld and counter them with symbolic politics and tools for de-colonization, often in solidarity with affinity groups. (p. 43)

To this end, Castells (1999) further argues that globalization and the information age has led to the rapid dissolution of shared identities, the keystones of dominant institutions, and in their place resistance identities, in the form of communities, have emerged whereby unifying values or proactive social ideals provide the central tenet for their existence (p. 355-356).

As noted above Castells revisited, and ultimately adapted, his perspective on identity creation within the context of the Web 2.0 and the horizontal networks of communication that they entail. This approach was tested by Sadakane (2007), who suggested that mass self-communication via the Internet empowers individuals to deviant actions because they no longer view their deviance as an individual act but rather as a reinforcement of community ideals.

Moreover, these horizontal networks may be breeding grounds for relative deprivation – a significant contributor to one's willingness to learn new definitions of deviance (Kanin, 1985).

Cooper and Harrison (2001) illustrate the communal aspect of electronic music piracy, noting that music pirates operate in a complex and structured social environment; this is bolstered by Rogers et al.'s (2006) finding that computer deviants scored low in measures of introversion. These findings are suggestive of a link between Castells' (2009) concept of mass self-communication and the reproduction of altered values relevant to electronic deviance; that is

to say, it appears likely that actors engaged in music piracy will readily share their values and tastes in a communication environment, encouraging others to participate.

Criticisms

Although Castell's theory of communication power provides great insight into communal processes as they relate to the rapid development of networked power structures, his focus rests on macro-level observations and their relationships with these environments. Castells (2011) suggests that networks of communication such as the Internet are influenced by all social actors, albeit into differential levels of effectiveness. These actors are programmers, individual/groups with "the ability to constitute network(s), and to program/reprogram the network(s) in terms of the goals assigned to the network" (p. 776) within the context of shared ideas, visions, and projects. Castells maintains that programmers have the capacity (and indeed, the goal) to develop constituencies of followers, thus creating momentum for a given meme; unfortunately, he departs from providing an in-depth analysis of the micro-sociological functions that see some ideas gain traction while others fall to the wayside. In his own words, he writes that:

We must find the specific network configurations of actors, interests, and values which engage in their power-making strategies by connecting their networks of power the mass communication networks, the source of the construction of meaning in the public mind. (Castells, 2009, p. 430)

In essence, Castells concludes his theoretical development by noting that his theory of communication power only goes so far. To further develop it, and more importantly the processes that establish collective understanding on technological memes, he challenges researchers to identify the forces that construct meaning at the base level.

This gap has often been an axial point of critique levelled by communications scholars toward Castells' work (Howard, 2011). For example, consideration of micro-level sociological function is omitted from his work once again at the conclusion of Communication Power.

Webster (2006) challenges the multidimensional breadth of Castells' (1996) work (Webster 2006, p. 116). Simply put, in attempting to define a worldwide theoretical approach, Castells has used sweeping notions to define relationships at the micro level. As Webster (2006) writes "there is surely a host of differences between stockbrokers working in the City and a water engineer maintaining reservoirs in Cumbria [UK], yet to Castells they are both informational labour" (p. 116).

One potential solution to this problem is sourced from within Castells' earlier body of work wherein he identified a symbolic interactionist approach to the construction of meaning, particularly in a networked society (Castells, 2000). First, he establishes that the rise of an interactive audience through Internet proliferation establishes a culture of "real virtuality" (p. 13) wherein an adaptive 'reality' is constructed by individual actors through their relations with usergenerated content. These realities are in flux, where actors are constantly redefining themselves according to a fractured and disorganized information leadership. Together these actors work as nodes in multiple networks of communication to reflexively form, and reform, individual iterations of understanding a de-centered and shared decision-making process. Castells (2000) defines the participants in this virtuality switchers due to their capacity to draw from multiple information networks simultaneously.

Second, and ancillary to the first assumption, is Castell's (2000) assertion that switchers have developed an "autonomous ability to reprogramme one's own personality ... replacing the strengthening of a set personality, embedded in established values" (p.21) thus become both

switchers and also programmers (defined above). This leads to his conclusion that "culture is constructed by the actor, self-produced and self-consumed" (Castells, 2000, p.21) leading a hyper-individualized understanding of cultural meaning. Castells acknowledges that this approach shares many of the processes outlined in Giddens' (1984) process of structuration, but notes that his theory diverges in that "socialization becomes customized, individualized, and made out of composite models" (Castells, 2000, p.21)

Again, the major flaw to his work is that he takes a systems-oriented approach that is at best a mesa-level interpretation of interaction. While he relates much of his theory to the networked creation of knowledge and movements, Castells devotes very little of his work to analyzing the actors involved in the creation of said knowledge. Rather, he assumes that the radical or catalytic sources of informalization are a given and instead focuses his attention on the exercise of power emerging from these forces. It is not that Castells (2009) is in denial of the need, but rather, he propositions other researchers to fill out these elements of his theory:

Further research will certainly supersede the contribution submitted hereby, while hopefully finding some use for the effort spent cutting through the maze of networked social practices that weave the fabric of society in our time. (p. 430)

A proposition: Technological efficacy

Insomuch that critical network society studies from the likes of Castells and Burkhart effectively identify the catalysts for digital resistance movements like music piracy – an approach that will henceforth be accepted and utilized as foundational knowledge for this study – they, and similar scholars, have largely overlooked the agency-oriented conditions that predicate a given actor's acceptance of and participation in said trenches of resistance. Specifically, like any other skill, one's capacity with net-enabled technologies often dictates the type and breadth

of their experiences online. Hence, an opportunity exists to establish the grassroots catalysts for large-scale movements as encountered in the connected bedrooms, offices, and coffee shops of the world.

The remainder of this chapter will focus on proposing technological self-efficacy as a deciding factor for one's immersion in the darker corners of the network society. This approach will be explored further in chapter four through the lenses of Social Learning and Moral disengagement; and ultimately, with empirical study throughout the remainder of this dissertation. Self-efficacy is a relational measure of one's self-confidence in their abilities within a given field, and is often studied in the context of its impact on their subsequent behaviour or course of actions within the same field. Albert Bandura is generally credited with defining this concept, and described it thusly in "Self-efficacy: Toward a unifying theory of behavioural change" (1977):

The strength of people's convictions in their own effectiveness is likely to affect whether they will even try to cope with given situations. At this initial level, perceived self-efficacy influences choice of behavioral settings. People fear and tend to avoid threatening situations they believe exceed their coping skills, whereas they get involved in activities and behave assuredly when they judge themselves capable of handling situations that would otherwise be intimidating.(Bandura, 1977, p. 193-194)

Twenty years later Bandura revisited this concept, writing that "the new realities of the information era require advanced cognitive and self-management competencies to fulfill complex occupational roles and to manage the maze of demands of contemporary life" (p. xi). Of

particular interest to this study is the connection of two principle components in Bandura's model: Mastery Experiences and Selection Processes.

Although Bandura explains four different mechanisms of personal agency, he notes that mastery experiences are the "most effective way of creating a strong sense of efficacy" (Bandura, 1995, p. 3) When an actor experiences success in their actions, they begin to build a robust belief in their capacity to undertake that and related tasks or courses of action in the future. From this success they develop mastery, or the cognitive, behavioural, and self-regulatory toolkit required to effectively recreate and improve upon the positive results that they had previously experienced. Further, the resiliency of these toolkits depends on the measure of difficulty associated with the related tasks: Something that an actor easily achieves does not have the same bearing on their sense of agency as a situation that requires long-term commitment and perseverance.

Bandura's discussion of mastery experiences clearly parallels the steep learning curve that individuals face in the day-to-day use of the Internet and related technologies. The rapid turnover of technological innovation encountered through the information revolution coupled with the increasing saturation of Internet technologies in the workplace and educational institution has firmly entrenched a digital frontier in constant flux. In order to keep up with this rapid state of change one must engage in ongoing learning or risk falling to the wayside.

Discussed by Fieldhouse and Nicholas (2008), the "tech savvy" individual is someone with "a common sense approach to and awareness of the problems and pitfalls of exploring the highways of the Internet" (p. 49).

Central to this body of literature is the notion that an adapted model of self-efficacy focussing on one's ability to navigate and use the Internet, as well as other information

technologies, plays a significant role in predicting the Internet experiences of users (Whitty and McLaughlin, 2007). This so-called "digital divide" (Eastin & Larose, 2000, p. 0) is a series of social and technological barriers that shape users' pathways toward electronic information.

Reflecting on the complex and shifting landscape of Internet technologies, Fieldhouse and Nicholas (2008) add that modern users are required to go beyond being savvy: They need to be "information wise" (p. 49) These are individuals whom have the "ability to exercise judgment, discernment, and prudence" whilst engaging in online activities. This ability to sift through and parse out misleading, incorrect, harmful, or malicious information has become a requirement of netizenry, and as Fieldhouse and Nicholas discuss, is characteristic of the digital divide. Individuals who are more informed about the benefits and risks of using digital technologies are more likely to engage in more rewarding information seeking activities, or in other words, have greater digital literacy.

For some, the ability to effectively filter out useless electronic data comes naturally (grounded in experience), while others are easily mislead by similar instances. At first glance this gap is most easily construed within the context of generational differences wherein those who have grown up digital exhibit much digital literacy (as opposed to older groups like the baby boomers) (Tascott, 2009); however, Fieldhouse and Nicholas (2008) provide a more nuanced examination. The authors start by acknowledging correlates between age and savviness, but then also draw a connection between one's digital street-sense. The authors contend that individuals who have greater exposure and training with Internet technologies are more confident in their abilities, become more efficient in locating information, take a more exploratory approach to using the Internet, and ultimately gain more confidence. They conclude that:

Learning has become a lifelong commitment and being information literate is critical to social inclusion. The information haves are more capable of functioning effectively in a digital society than the have-nots and formal information literacy education is one means of developing information savviness. (Fieldhouse & Nicholas, 2008, p. 65)

The pedagogical mechanics that establish pathways to digital literacy are connected in part to an individual's measure of self-efficacy. As they develop their mastery tasks related to negotiating the information available online, individuals become more likely to engage in autonomous learning wherein they act without instigation, expanding their knowledge horizons (Ting, 2015). This cyclical pattern is evident in Bandura's explanation of mastery experiences (noted above) and provides some insight into how Internet users might first encounter trenches of resistance; however, this concept alone does not adequately address engagement in such resistance.

A consideration of Bandura's notion of selection process helps to address this gap.

Selection processes have an affective relationship with the development of agency: individuals choose their environments based on their efficacy beliefs. More specifically, Bandura argues that people will attempt to modify and control the institutions that they interact with to a greater or lesser degree based on their perceived self-efficacy in that domain. An illustrative example raised by Bandura is one's career choice. Actors who have a "strong sense of personal efficacy consider a wide range of career options, show greater interest in them, prepare themselves better for different careers and have greater staying power in their chosen pursuits." In summation,

Bandura argues that the experience of actors who have a lower sense of efficacy are shrouded in self-doubt and a fear of failure while those with a stronger sense efficacy will rise to a given challenge and concentrate on their successes.

The combination of mastery and selection experiences aligns with a growing field of research investigating the role of one's self-efficacy in their online experience. To wit, a recent meta-analysis and study conducted by France Bélanger and Lemuria Carter (2009) explored the factors that played a predictive role in the type of e-government services that Internet users accessed. A number of government agencies have begun to digitize their services, offering faster and more effective processes to those who are willing to access them. Bélanger and Carter confirmed that "Internet usage and online information search experience were significant predictors of intentions" to use these electronic services (Bélanger & Carter, 2009); however, a "skills divide" proves a significant barrier to personal adaption. Generally, those who indicated greater familiarity with every-day Internet tools were more likely to engage in new online behaviours and communities than those who had limited exposure to computing.

Several studies have identified how one's online experience might differ based on their level of self-efficacy and general aptitude with computers. One such example, from Hatlevik, Guðmundsdóttir, and Loi (2015) measured a series of indicators influencing digital competence, including self-efficacy, and drew a significant relationship between competence and the quality of online information collected by secondary students. Similarly, Hsu and Chiu (2003) identified how various self-efficacy factors could be used to predict the use of an electronic tax system that requires certain technical abilities.

A second important relationship in the literature is the extent to which online competence influences trust of the Internet, as well as trust in oneself to mollify risk associated with personal information leakage. This relationship has been notably explored by Lwin and Williams (2003), who explored the antecedents to online consumers attempts at disguising their identity during online interactions. Using a combination of privacy and reason action theoretical frameworks,

the authors predicted that attitudes reflecting trust in one's abilities, as well as mistrust of exposure to elements of behavioural control would positively correlate with producing fake identity information. Their study largely confirmed their hypotheses using ANOVA methods, with particularly significant findings relating to the individual's interpretation of their safety online. A second interesting study by Livingstone and Helpser (2009) explores the relationship between opportunity and risk for teenagers when acting online. The authors found that while more advanced users exposed themselves to greater risks (associated with sharing personal information online), they did so knowingly and developed a series of strategies to mitigate said risks.

Overall, these and other studies (e.g. Eynon and Malmberg, 2011; Staksrud & Livingstone, 2009; Davies & Eynon, 2013, etc.) illustrate two important relationships: First, as level of online capacity increases, level of online trust decreases; and second, as level of online capacity increases, self-efficacy ratings for risk mitigation increase. This, combined with established relationships between self-efficacy and user experience, indicates that there should be a covariate relationship between measures of efficacy and trust on the overall online experience (informalization) of web-users.

As depicted in Figure 1.2, the theoretical approach for this study integrates self-efficacy and online experience (inclusive of trust), as antecedents to the social learning and moral disengagement processes. It does not assume a hierarchical order to these theories but rather differentiation in their scope. This chapter has proposed that a consideration of the interaction between a networked society and an actor's measure of self-efficacy may assist in understanding the pathway to the realignment of morals to meet those expressed by community members. In brief, this study aims to establish that online interaction produces new methods of learning, new

moral perspectives, and new environs that all interact to produce an online culture that normalizes deviance. Moreover, it explores how differentiated experiences influence these pathways.

CHAPTER 4 SOCIAL LEARNING THEORY AND MORAL DISENGAGEMENT

Introduction

In the preceding chapter I explored the role of online interaction as a catalyst for identity development from within the framework of networked society and mass self-communication. Further, I proposed that measures of self-efficacy play a significant role in determining what types of network interaction netizens might encounter based on their capacity with information technologies. These networks – interconnected communities centered on some form of identity (Castells 1996, p. 468) – function as emic places that develop the "reassuring impression of being part of a community" in the absence of difference (Bauman, 2000, p. 99). In addition, networks are adaptable social structures that create "highly dynamic, open system[s], susceptible to innovating without threatening its balance" (Castells, 1999, p. 470). One major critique of networked society theory is that it fails to articulate the processes by which individuals entering new networks are encouraged to take up the ideals and characteristics of other network players (Webster, 2006). This chapter will address this gap by exploring individual acceptance of new norms through the processes of social learning; additionally, it will consider how social learning processes may encourage individuals to disown their moral agency when knowingly participating in harmful acts like music piracy through the process of moral disengagement.

Burgess and Akers (1966), and later Akers (2009), reformulated Edwin Sutherland's (1978) theory of differential association as social learning theory with the aim of explaining the role of "significant others" (Akers & Jensen, 2007, p. 136) in the way individuals change their definitions about deviant behaviours. Stating that "other people ... are the most important" source of differential reinforcement, Burgess and Akers (1966, p. 132) argued that the actors and other communication medias most closely associated with an individual are the most influential in

their creation of favourable definitions. They further added that "the principal part of the learning of criminal behavior occurs in those groups which comprise the individual's major source of reinforcements" (1966, p. 134). As explored above, Internet-based communities now play a significant role in the socialization of many people around the world. The social learning theory provides a contextual lens for understanding how these online interactions might shape a person's perception of the harm associated with music piracy.

Adding another layer to the theory of social learning, Bandura (1978), revisiting Sykes and Matza's (1957) theories, proposed that young people accused of deviant acts employ neutralizations to justify their actions, and that these justifications influence the continuation of deviant behaviour. In both cases, the authors suggested that these neutralizations were constructed through peer reinforcements – that they learned to use these responses from significant others (Akers & Jensen, 2007). Akers (2009) highlights these principles as an important factor in the social learning theory and attempted to identify moral disengagement and techniques of neutralization as one and the same; however, Bandura's (1986) perspective offers much more in the way of in-depth analysis and as such is commonly considered an alternative theory (Rogers, 2001). Despite variations in the theoretical taxonomy, the strong relationship between techniques of neutralization and social learning theory suggests that moral disengagement will naturally fit with my employment of the principles of social learning theory as they relate to music piracy.

Social Learning Theory

Social learning theory has been popularized by Ronald Akers (1998); however, its roots can be traced to concepts by Edwin Sutherland (1983). When researching white collar crimes in the United States in the 1930s, Sutherland (1983) set out the groundwork for this differential

association theory, noting that "... the businessman who violates the laws which are designed to regulate business does not customarily lose status among his business associates ... although a few members of the industry may think less of him, others admire him" (p. 219). Sutherland (1983) noted that an identity legitimating white collar crime had emerged amongst networks of businessmen, and that these networks reinforced deviant actions, normalizing the behaviours. In other words, Sutherland observed that upon entering a new social environment, individuals began to associate with the norms and informal rules of behaviour contiguous of the social group, which could be at odds or differential to broader societal norms, rules, and laws.

Sutherland formalized this theory in his 1924 text *Criminology* and revised it in 1947 (Akers 2009). In it, he postulated nine statements that form a general criminological theory on the impact of peer networks and how their reinforcement of various actions supports and promotes deviant identities (Akers 2009). Of particular interest, Sutherland (1983) observed that "the general principle that a violation of the legal code is not necessarily a violation of the business code ... prestige is lost by violation of the business code but not by the violation of the legal code ..." (p. 219-220). More generally Sutherland (1983) was stating that for individuals in close-knit communities (networks) the norms of the group, rather than those of authorities, hold greater bearing on the level of wrongfulness that they attribute to an act.

Burgess and Akers (1966) suggested that Sutherland's theory had two shortcomings. One critique was that he tried to incorporate too many aspects of the social learning process to measure, and the second criticized the vagueness in explaining how the process of social learning occurred (Akers, 2009, p. 43). Concurrent with their criticisms, Akers and Burgess posited their own re-interpretation of social learning, combining Sutherland's tenets with B.F. Skinner's theories of operant conditioning (Akers 2009). This theory, entitled "differential association-

reinforcement" argued that "Sutherland's basic notion of learning through association... was entirely compatible with the key notion in operant theory" (Akers, 2009, p. 43). Burgess and Akers (1966) compiled their own list of statements that expand from Sutherland's (1978) earlier work. In subsequent years, Akers further modified this theory to incorporate delinquent and deviant behaviour as well as criminal behaviour, and labeled these modifications as social learning theory (Akers 2009). In its current form, Social learning theory identifies four primary contributors toward deviance: Differential association (having significant others engaging in deviant behaviour), differential reinforcement (receiving positive reinforcement by significant others for deviant behaviour), modelling or imitation (learning deviant behavours through observation), and definitions (evaluative and moral attitudes toward a given act).

The underlying principle of enquiries framed in the social learning perspective is to seek an explanation as to why people readily deviate from traditional norms and develop new ones.

Akers (2009) has frequently revisited Sutherland's (1983) main concepts, ultimately condensing the principles of differential association and adding elements of operant conditioning, imitation, and definitions to develop a concise statement of theory:

The probability that persons will engage in criminal and deviant behaviour is increased and the probability of their conforming to the norm is decreased when they differentially associate with others who commit criminal behaviour and espouse definitions favourable to it, are relatively more exposed in-person or symbolically to salient criminal/deviant models, define it as desirable or justified in a situation discriminative for the behaviour, and have received in the past and anticipate in the current or future situation relatively greater reward than punishment for the behaviour. (p. 50).

Akers' (2009) work in Social Learning can be connected to the development of identities through his illustration of peer groups' contributions to individuals' normative definitions. These definitions function as a steering mechanism for the day-to-day actions of an individual, eventually leading the actor to conform to the accepted norms of their peers. This process of association redefines a person's norms, and ultimately, their identity (Akers 2009, p.61).

Identity creation plays a central role to the social learning theory (Burgess & Akers, 1966). The basic premise of their research, that criminal behaviour is learned, is evident in and of itself. The authors observed as much, stating that behaviour is "a function of its past and current environmental consequences" (136). Akers (2009) further explained the role of social learning in developing identities by illustrating how peer groups contribute to the individual's normative definitions. These definitions function as a steering mechanism for the day-to-day actions of an individual, eventually leading the actor to conform to the accepted norms of their peers. This process of association redefines a person's norms, and ultimately, their identity (Akers 2009, p. 61). A multitude of research has established the significance of this theory in deviant and criminal identity construction; for instance notable studies by Bandura and Walters (1963), Benson and Simpson (2009), and Anderson (1990) have all reinforced the value of this approach.

A direct connection can be made with the network society theoretical landscape: Much like Castells' (1996) concept of nodal distances, social learning theorists hold that intimate and direct interaction is a necessary element in personal development (Akers & Jensen, 2007). In both cases, the strength of networks is related to their "closeness," namely proximity of identities within the context of shared beliefs and frequency of interaction. In his studies, Castells (2011) found that the importance of worldwide networks – the state or etic– is displaced by the needs of the individual for personalized interaction, and as a result the strongest networks are those which

provide the opportunities for such interaction; the emic (Webster 2006; Castells, 2011; Bauman, 2000). Similarly, in studying the impacts of various social circles on youth deviance (defined as primary and secondary reinforcers), Akers, Krohn, Lanza-Kaduce, and Radosevich (1979) found that "the most important of these groups with which one is in differential association are the peer-friendship groups and the family..."(p. 638). In other words, Akers et al. (1979) concluded that highly personal interaction plays a major role in one's acceptance of deviant norms.

Importantly, Akers' (2009) states that people who are "relatively more exposed in-person or symbolically to salient criminal/deviant models..." are likely to develop more favourable definitions of deviant or harmful actions (p. 50). The removal of a specific reference to in-situ experiences opens up the opportunity for consideration of peer reinforcements occurring by proxy. In other words, the suggestion here is that individuals may experience social learning through electronic communication via the internet. The Internet revolution and subsequent changes to interpersonal and mass communication have provided novel means of personalized social interaction across vast distances for connected netizens. Emerging Internet-based communities have allowed users to radically overhaul their personalities and present online personas that differ from their offline identities (Holt, 2010). For instance, the now infamous hacking group Anonymous, a loosely-connected community of Internet-based anarchists, is largely comprised of technologically inclined young middle-class white males who otherwise have had no formal contact with the legal system. Many of the participants attribute their commitment to this organization and its endeavours to online experience on various communications-oriented websites such as Digg or Reddit (Parker, 2014; Walker, 2012).

Further, studies on hackers, hacktivism, and the hacktivist ethic (a term adopted by Anonymous)(Walker, 2012) have related the formation of attitudes sympathetic with

Anonymous' vision to master-apprentice relationships, vis-à-vis social learning (Steinmetz, 2015; Holt, 2009; Holt, 2010). Although some consider the group's work to be nothing more than digital graffiti, law enforcement agencies have equated these individual online actions with the high-stakes robberies that occur in the real world - something that most people wouldn't dare to attempt.

An expanding body of literature has applied the principles of social learning theory to electronic piracy. Early contributions by Skinner and Fream (1997) and Rogers (2001) established the occurrence of differential association within the broadly defined area of Internet-based piracy, which includes using the Internet to violate any form of intellectual copyright.

Cooper and Harrison (2001) illustrate the communal aspect of electronic music piracy, noting that music pirates operate in a complex and structured social environment; this is bolstered by Rogers et al's (2006) finding that computer deviants scored low in measures of introversion.

More direct research has emerged over the past decade linking social learning theory to music piracy. Higgins and Makin (2004) applied principles of social learning directly to the campus, finding that the number of reported deviant peers significantly predicts an increase in students' likelihood to engage in piracy. Along with a number of other studies (ie Hinduja 2003; LaRose et al. 2006; Morris, Johson, & Higgins 2009; etc.) this literature has established a strong connection between social learning and electronic music piracy on post-secondary campuses.

When exploring activist networks, Crack (2009) observed that "Mutual affinity may be most successfully engendered" through meaningful interaction (p. 350), and concluded that as globalised medias of communication begin to take precedence in the dissemination of governance networks, they become distorted and eventually ineffective. Similarly, Hinduja and Ingram (2009) established the strength of online and offline peer groups in determining piracy

amongst undergraduate students. The authors observed that both access to electronic resources supportive of music piracy also significantly accounted for variations in predictive models, and concluded that online peers, offline peers, and online media sources accounted for 55 percent of variation in their OLS regression model for electronic music piracy. Most notable is Holt and Cole's (2010) study of persistent music pirates. The authors found that interaction with other music downloaders in electronic forums led to the development of a group consensus validating their actions, and individual acceptance of this consensus. The authors concluded downloaders did not view themselves as deviants but rather as normal people who occasionally engaged in a vice.

The activist networks framework can be used to reinforce the notion that electronic audio piracy develops out of a community of shared beliefs. For example, Cooper and Harrison (2001) illustrate the emergence of an online music piracy subculture that developed in response to the music industry's lack of response to the growing demand for online music. Additionally, Ogan, Ozakca, and Groshek (2007) outline an emerging trend amongst college students who are immersing themselves into an Internet culture, and that participation in reciprocal situations such as political discussion further predicted this immersion. Finally Ingram and Hinduja (2008) illustrate that university students participating in electronic piracy develop communities of support which take precedence over the prevailing rules of the institutions in which they were situated.

Techniques of Neutralization

The social learning approach has often been augmented with studies in guilt avoidance that consider the prevalence of techniques of neutralization. When this framework was initially outlined by Sykes and Matza (1957), they explained that their purpose was to address the

shortcomings of social learning theory: namely that although this perspective was sufficient in explaining why actors become deviant, it did not explore what actors learned in the first place. In response Sykes and Matza (1957) sought to establish a set of values and norms that are taken up by the deviant actor as result of differential association, including: denial of responsibility ("It wasn't my fault!"); denial of injury ("why is everyone making a big deal about it; they have money!"); denial of the victim ("they had it coming to them!"); condemnation of the condemners ("They probably did worse things in their day!"); and, appeal to higher loyalties ("My friends depended on me, what was I going to do?!") (Sykes and Matza, 1957, p. 666-669). Moreover, their work suggests that young people acknowledge that their deviant definitions are not "right," and use the aforementioned excuses as a means of rationalizing their delinquent attitudes thus maintaining the perceived gap between offender and victim (Sykes and Matza 1957, p. 665).

Several articles indicate the applicability of this theory to online deviance by students. LaBeff et al. (1990) studied cheating at the postsecondary level and found strong results for three of the five techniques Sykes and Matza (1957) originally postulated. Neutralization techniques can be applied symbiotically to social learning theory, because the social learning theory leaves gaps in understanding why deviant definitions of peers are accepted over legitimate ones (Sykes and Matza 1957). Morris and Higgins (2009) have found that college students who download music are more likely to have developed neutralizations about their behaviour, and that these neutralizations are impacted by peer reinforcements; these findings have further been supported by Hinduja (2006) and Ingram and Hinduja (2008). Ingram and Hinduja's (2008) study found significant data for neutralization among university students committing computer piracy, stating that their results indicated that greater acceptance of the techniques associated with "denial of responsibility," "denial of injury," "denial of victim," and "appeals to higher loyalty" were

significant predictors of moderate levels of piracy participation (Ingram & Hinduja, 2008, p. 360). Ingram and Hinduja's study suggest that congruent theory applies to this particular phenomenon.

Moral Disengagement

Despite widespread study, and ubiquitous application, several poignant criticisms have been raised about the neutralization theory (Christensen, 2010). Primary amongst these concerns is the presumptive attribution of moral vagrancy wherein individuals acquiesce to the wrongfulness of their actions before retroactively applying rationalizations to neutralize their wrongdoing (Peretti-Watel, 2003). This motive mongering (Hills 1980) assumes that the accused deviants have successfully (if temporarily) dissociated themselves from mainstream morals, and requires them to defend their actions rather than calling on the researcher to defend the presumed morality (Christensen, 2010). If this is the case, then neutralization theory might be viewed as a simplistic discussion rather than a nuanced theoretical stance: "neutralizations would just be rationalizations a posteriori (in the Freudian sense) or excuses offered by an insincere individual after an isolated offence in order to counter the guilt and offset the censure" (Peretti-Watel, 2003, p. 25). To this end, some critiques have suggested that neutralizations are merely "performances" (Maruna and Copes, 2003, p. 270) by deviants hoping to plead their case in a way that sympathizes with the presumed beliefs of their questioner. For example, Christensen (2010) argues that the traditional scope of neutralization theories carry a prejudice of deviance ("motive mongering")(p. 564).

These shortcomings may be overcome by considering these statements as "accounts" rather than neutralizations (Christensen, 2010). Explained by Christensen (2010)

By their definition, an account is "... a statement made by a social actor to explain unanticipated or untoward behavior—whether that behavior is his own or that of others..." (Scott and Lyman 1968, p. 46) and that they are "... uttered in response to an accusation" (Lyman 1997, p. 15). (Christensen, 2010, p. 567).

While Scott and Lyman (1968) redeveloped neutralization theory into 'accounts,' the idea of explaining unexpected behaviour has been more fully explored by Bandura (1986), who reconceptualised the individual negotiation of moral boundaries as 'moral disengagement.' This perspective takes a similar approach to the neutralization theories outlined above in that it delves into the agent's reasoning for overriding internalized structures of legality and venturing into deviant behaviours. Indeed, Akers (2009) has generalized that the concept of "neutralizing definitions" makes significant contributions to the Social Learning theory and argues that Bandura's (1986) model is subsumed by pre-existing theories of neutralization techniques (i.e. Sykes & Matza, 1957). However a number of researchers have argued otherwise, presenting evidence that the theory of Moral Disengagement provides illustrative concepts that demonstrate the rationalization and justification of deviant behaviour more comprehensively than traditional frameworks (i.e. Rogers, 2001; Osofsky, Bandura, and Zimbardo, 2005). This theoretical approach dovetails eloquently with the perspectives outlined above in that it addresses deviance in terms of the agent. While Castel's (2010) and Akers (2009) approaches offer insight into the individuals assumption of new identities reflective of social organization, moral disengagement considers the "the selective activation and disengagement of internal control" (Bandura, 1986, p. 375) relative to the agent alone.

When discussing moral disengagement theory, Bandura (1986) noted that the "development of self-regulatory capabilities does not create an invariant control mechanism

within a person..." (p. 375). Rather than viewing the agent and his or her actions as a culmination of positive and negative reinforcements experienced through association, he theorized that the agent plays an active role in their adherence to formal and informal structures. This concept assumes that actors are naturally adverse to conduct that produces self-devaluative consequences, and hypothesizes that the deviant actor develops means to suspend this aversion based on various justifications. Much like the techniques of neutralization outlined by Sykes and Matza (1957), Bandura (1986) identified a number of justifications used as means of defusing the guilt or sense of wrongdoing experienced by a deviant actor (illustrated below in Figure 4.1).

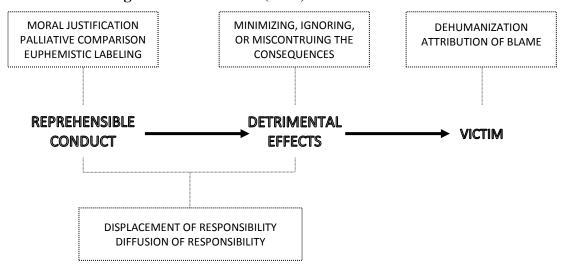


Figure 4.1: Bandura's (1986) model of differential association

As is apparent these justifications roughly align with the neutralizations described by Sykes and Matza (1957); their idea of denial of responsibility might be construed as Bandura's (1986) displacement/diffusion of responsibility; denial of victim could align with dehumanization; denial of the injury can equate with minimizing, ignoring, or misconstruing the consequences; and so forth. Where Bandura's (1986) work differs is in his explanation of the measured decline into acceptance of these justifications, something he termed "gradualism and self-disinhibition" (p.385). Bandura (1986) explains that the change from a "considerate person"

to an "unprincipled, callous one" occurs gradually and often begins with a level of discomfort on the individual's part. However, as their participation in the action continues their level of discomfort diminishes and their willingness to perform, and level of participation in a deviant act increases. Of interest are Bandura, Underwood, and Fromson's (1975) finding that this process is accelerated when the victim of the deviant action is dehumanized and not directly visible to the actor – parallels can easily be drawn between this conclusion and the act of downloading music from one's private home.

Bandura, Barbaranelli, Caprara, and Pastorelli (1996) revisited moral disengagement in the context of moral agency. Specifically they sought to determine the extent to which deviant actors personally disowned their moral agency when acting deviantly, and further whether a negative relationship exists between this "self-exoneration" and pro-social orientations. Using participants' measured level of moral disengagement as the primary independent variable, the authors found significant positive relationships between this factor and delinquent behaviour and aggression; and found significant negative relationships between the independent variable and pro-social behaviour and level of guilt. Based on their findings, Bandura, Barbaranelli, Caprara, and Pastorelli (1996) theorized that through the disengagement of moral standards from transgressive conduct individuals will be more likely to commit deviant actions without associated feelings of guilt or self-censure, and that such outcomes are empowered through the conscientious disownment of personal agency. This study establishes the process by which individuals overcome any self-regulatory feelings about injurious actions, and also provides insight into how deviant behaviours become naturalised actions.

A wealth of moral disengagement knowledge has been developed through the application of Bandura's original principles. This research has effectively established the concept as a socio-

psychological paradigm that is explanatory of the social learning process at an agency level. This is perhaps best illustrated in Marcus Rogers' (2001) dissertation "A social learning theory and moral disengagement analysis of criminal computer behaviour: an exploratory study." As a result of his research, Rogers (2001) was able to formulate a predictive model for participation in computer crime that addressed the impact of differential reinforcement on learning deviant ideals (i.e. the influences of law vs. the influence of peers) and measured the implication of Bandura's (1986) four moral disengagement categories on the internalization and justifications for enacting of these ideals. One particular aspect that has been encountered repeatedly is the respondent's justification that music piracy doesn't really hurt anyone; a denial of victim claim outlined by Sykes and Matza (1957).

Having illustrated the extent of Internet deviance on campus, particularly downloading copyrighted music researchers have shifted their efforts to establishing the factors that determine engagement. The social learning theory framework has been demonstrated as a reasonable means of explaining deviance among young people through hundreds of articles (Hinduja, 2006). Peer groups are the primary means by which post-secondary students socialize with one another, and these groups significantly influence the student's definitions of right and wrong (Skinner and Fream, 1997). The extent to which social learning affects group and solo offending has been demonstrated by Hochestetler et al (2002). Their research found friends' attitudes and behaviours were significant predictors of total offending (Hochestetler et al., 2002). This finding is further clarified by Thomas et al. (1975) who found that an overarching "hang loose ethic" or subculture has developed over time on campuses, and that upon entering the post-secondary environment student definitions of deviance are altered to match this ethic through reinforcement by newly formed peer groups.

This chapter draws to a conclusion discussions of the theoretical underpinnings for this study. Depicted in Figure 2, the approach integrates self-efficacy and online experience (chapter 2 & 3) as antecedents to the social learning and moral disengagement processes (chapter 4). It does not assume a hierarchical order to these theories but rather differentiation in their scope. As we will see, this summative formulation can be useful when considering the interaction that occurs within networked communities and how that interaction may be reflected in the realignment of morals to meet those expressed by community members. In brief, this study will establish that online interaction produces new methods of learning, new moral perspectives, and new environs which all interact to produce an online culture that normalizes deviance. Moreover, I explore how differentiated experiences influence these pathways. The overall theory is depicted below in Figure 4.2.

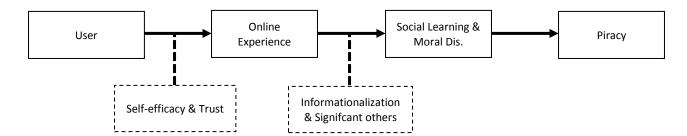


Figure 4.2: Summative illustration of theory

CHAPTER 5 METHODOLOGY AND METHODS

Introduction

To reiterate, the purpose of this study is to investigate the persistent engagement in music piracy by tech-savvy individuals despite suppressive action from industry and the state. This study hypothesizes that this persistence is a function of a pluralized online environment, one which provides multiple pathways to reducing or neutralizing the alleged harms from piracy. To that end, I have proposed an integrated theory that emphasizes structural influences on agency-level antecedents to electronic deviance, composed of elements from the network society, social learning, and moral disengagement theories. A total of three hypotheses were tested for this theory, including:

- 1. Individuals with different technical capacities experience and trust the Internet in different ways (network society);
- 2. The indicators of social learning vary across the differentiated online experiences afforded by the network society; and,
- 3. Different experiences with social learning leads individuals toward different forms of moral disengagement from the harms attributed to music piracy

To test these hypotheses, this study adopts an investigative quantitative methodology that employs statistical analysis of primary data to test for bivariate associations. Data was sourced from an electronic, self-administered questionnaire that was adapted from several matrices which have been used to test each of the informing theoretical frameworks described above. Such empirical methods are frequently encountered in studies of the social sciences, and replication thereof provides a strong foundation to support the hypothesis of this study.

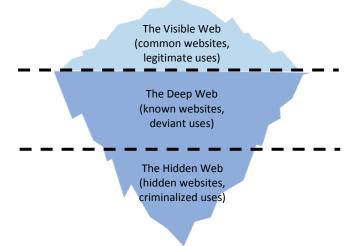
The purpose of this chapter is to introduce and provide rationales for the methodology and methods used for the study outlined above. The remainder of the introduction section develops a

narrative of the theoretical concepts to be used and effective means for testing them grounded in existing research literature. It then moves on to a discussion of the research design, which includes a defence of quantitative empiricism as a research method, and rationales for the research tools that were employed in this study. From there, the chapter then discusses the nature and application of the various tools that were utilized in the study. Finally, this chapter concludes with a critical discussion of the methodology.

Testing Hypothesis I: Indicators of a networked society

Hypothesis one looks to differentiate the experiences of internet users based on their technical capacity and trust for the internet. This theory is grounded in elements Castells' (1997; 2009) networked society perspective, in which he indicates that internet users will develop their own networks reflective of personal tastes or interests. Measures of self-efficacy, or one's "conviction that [they] can successfully execute the behavior required to produce ... outcomes" in a given task (Bandura, 1977, p. 193), have long been viewed as an effective tool for assessing individual's information seeking behaviour (McKinley & Ruppel, 2014), and ultimately, their behaviours in a network society. Further, a well-developed field of research has applied the principles of self-efficacy to a range of behaviours with Internet and computer technologies (e.g. Eynon & Malmberg, 2011; Hargittai & Hsieh, 2012; etc.). In general terms, the thrust of the research has been to explore the relationship between digital competence and one's exposure to more risky information-seeking and participation in deeper parts of the Internet (for example, see Staksrud, Ólafsson, & Livingstone, 2011). Figure 5.1 presents a graphical depiction of the 'depth' of the internet.

Figure 5.1: The deep web



Adapted from Sui, Caverlee, & Rudesill (2015)

Supplementary studies have also attributed to measures of trust or anxiety when using the Internet to one's perceived self-efficacy with technology (Durndell & Haag, 2002; Taddei & Contena, 2013). These studies measure the relationship between one's perceived control of personal information online and their resulting levels of disclosure (Taddei & Contena, 2013). More importantly, these measures have also been found to be precursors to positive attitudes about the Internet, prolonged usage, and riskier behaviour (Durndell & Haag, 2002; Lwin & Williams, 2004; Staksrud & Livingstone, 2009).

Many of these studies provided matrices for their related topics as appendices; in virtually every case these matrices were formatted as a series of statements related to using technology or the Internet and an associated Likert scale indicating differing levels of comfort.

Although the literature provides a wide range of options, the current study centred on two tests of computer abilities to establish individual self-efficacy and trust.

Testing Hypothesis II: Indicators of social learning theory

Building on the assumptions from hypothesis one, the second hypothesis tests if the differences noted above can predict which of the social learning methods a user is most likely to

relate with. Outlined by Akers (2009), the four broad categories include differential association, differential reinforcement, modelling, and definitions. As mentioned above, social learning theory is the most commonly encountered approach to investigating electronic piracy of copyrighted materials (e.g. Skinner & Fream, 1997; Hinduja, 2001; Higgins & Makin, 2004; Selwyn, 2008; Higgins, Wolfe, and Ricketts, 2009; Hinduja & Ingram, 2010; Popham, 2011; etc.). This well-established field primarily relies on standards set by Ronald Akers with his theory of Social Learning (the most recent iteration was published in 2009).

Although the foundation of social learning theory lies in Sutherland's (1983) concept of differential association, Burgess and Akers (1966) and later Akers (2009), continuously improved on the model for nearly half a century. Moreover, the social learning theory is continuously tested; per Akers (2009), "a large body of literature has accumulated reporting research that test full or partial social learning models ... the preponderance of evidence from that research favors the major propositions [from the theory]" (p. 110). Many of these studies rely on Akers, Krohn, Lanza-Kaduce, and Radosevich' (1979) test of theory, which set out four tenets of social learning theory: Imitation; definitions; differential association; and differential reinforcement.

One of the most notable tests of social learning theory in the context of music piracy was conducted by Hinduja (2006). This study tested the etiology of computer crime by adapting a survey of computer deviants developed by Skinner and Fream (1997). Hinduja's (2006) survey included thirty-seven variables measuring the main tenets of social learning theory; however, upon analysis he found that only fifteen variables had significant bearing on his findings. These fifteen variables are presented below.

Testing Hypothesis III: Indicators of moral disengagement

The final hypothesis assumes that users' preferred method of social learning impacts the way they neutralize or minimize the communicated harms of their actions. For this study, neutralization behaviours are expressed as one of the four meta-frameworks developed by Bandura, Caprara, & Pastorelli (1996), including selective disengagement, obscuring personal agency misrepresenting injurious effects, and vilifying recipients. The theory of moral disengagement holds that "in the exercise of moral agency people refrain from behaving in ways that violate their moral standards because such conduct will bring self-condemnation" (Osofsky, Bandura, & Zimbardo, 2005). To that end, it seeks to measure how an individual might account for actions that fall outside of their standards – in other words, how they might disengage from morals that might otherwise hold them accountable for their own deviance. As discussed above (see chapter four, Social Learning Theory and Moral Disengagement), this perspective plays a significant role in Social Learning Theory approaches to deviance.

The majority of existing moral disengagement research relies on a conceptual framework proposed by Bandura (Bardley and Kavussanu, 2007; Bandura, 1999). This framework, provided above in Chapter 4 (see table 4.2), uses a series of propositions to identify the means by which individuals distance themselves from their deviant actions (Bandura, Caprara, & Pastorelli, 1996). These propositions, or mechanisms, can then be categorized in a three point meta-framework that includes: justifying reprehensible conduct; minimizing detrimental effect; and victim blaming (Bandura, Caprara, & Pastorelli, 1996).

Bandura's model of moral disengagement has frequently been tested through the past three decades, with significant contributions in areas such as terrorism (Bandura, 1999); organizational

corruption (Moore, 2008); sports (Boardley & Kavussanu, 2007); and in the online world (Pornari & Wood, 2010; Rogers, 2001).

Research design

This study was framed within a critical social research (CSR) context, and uses quantitative research methods to contribute to the substantive areas of online deviance and intellectual property rights. The value of a CSR methodology is that it goes beyond a "pragmatic gestalt" of wrongfulness to evaluate the epistemology of deviance (Harvey, 1990, p. 100). The CSR approach plays an essential role in the argument developed for this study. As mentioned above, my intention is to highlight the pluralistic nature of the online world and by extension the multiple pathways toward deviance that it affords. This perspective runs contrary to popular discourse of the worldwide web, which conveys it as a homogenous collective (Turkle, 1999), thus developing an alternative gestalt.

To this end, Carroll (2004) identifies important the role of CSR in constructing deeper understanding of observed social phenomenon:

As a critical research strategy, dialectical social analysis has two main strengths: (1) it enables the research to "make connections," to grasp the many-sided character of a social/natural world that is fundamentally relational, practical, and emergent; (2) it enables the researcher to "unmask" both the underlying relations that generate social injustices and ecological maladies and ideologies that legitimate entrenched power by attending only surface-level appearances. (p. 114)

Using a CSR approach, this study provides insight into the individual's communication and internalization of symbolic meanings based on their interactions with peers and reactions to structured definitions of right and wrong (Hammersly, 2009). CSR is particularly useful for

exploring the learning process at the grassroots, such as the influence peer groups on the study's participants (Siraj-Blatchford, 1995).

Empiricism

Although empiricism and the pragmatic review of data seems to be at odds with providing CSR, recent scholarship has sought to address this gap and develop an epistemology of quantitative research for social review (Cokely & Awad, 2013). Central to this approach is eschewal of the premise that empirical research is value-free, an instead acknowledging that quantitative researchers "should be explicit about aligning with values that promote social justice, liberation, and community empowerment" (Vera & Speight, 2003, p. 266). In the current study, my reliance on quantitative data does not symbolize an acceptance of institutional norms of logical positivism; but rather, my use of empirical data is intended to present an alternative construction of a nascent societal domain in order to call for reflective interpretation of online community and communications.

Stage (2007) referred to such usage of empirical data as the "quantitative possibility" and practitioners as "quantitative criticalist[s]" (p. 8). He explains that

The critical quantitative researcher also questions models and assumptions but uses analysis of sociological and economic processes to demonstrate that for particular population groups, some widely accepted models and assumptions are inaccurate.

(p. 10)

Again, this reflects the methodology employed for the current study. My purpose for studying music piracy among technologically-abled individuals is to call into question prevailing concepts – including those articulated by industry and state – about the pluralized nature by which individuals come to act in very different ways while online (Turkle, 2005). In doing so I hope to

emphasize Stages' (2007) quantitative possibility as it pertains to a renewed and increasingly relevant worldview.

Several examples of the capacity of empiricism for critical research were recently provided in a special edition of the journal New Directions for Institutional Research (2013). For example, Oseguera and Hwang (2013) drew from a sample of 12,250 survey respondents to identify disparities in post-secondary educational (PSE) attainment between low and mid/high SES high school students. While their study commenced with a traditional positivistic approach to trend analysis, a secondary review framed by critical research questions was used to provide a more nuanced – and ultimately, revelatory – analysis that identified heretofore overlooked alternative pathways to education. Similarly, Conway (2013) demonstrated a series of studies that identified highly fractured immigrant-status groups that had otherwise been studied in a homogenous fashion (e.g. "Hispanic" vs. Country of Origin, p. 59). In doing so she expresses the danger of a "legitimizing" methodology (Cokely and Awad, 2013, p. 26) and emphasizes community empowerment by presenting inner-group differences. Conway (2013 concludes with a discussion of the need for acknowledgement of such pluralities – this, once again, is a challenge that I seek to address with my current study using a large data set collected through traditional electronic quantitative means.

Definition

An important issue within this field of study is the definition of piracy. Dependent on personal experiences, individuals might take any number of stances when defining what is and is not piracy (for discussion see Lessig, 2006). This confusion may impact data collection when participants are asked to discuss a topic with no single, clear definition (Lind, Schober, Conrad, & Schober, 2001). To ameliorate this issue, the current study acted on the advice offered by Lind

et al. (2001) and provided a contextual definition of music piracy so as to contextualize survey questions (for further discussion, please see chapter 2).

Following their acceptance, participants were provided with a definition of music piracy which read as follows:

Throughout this survey we will refer to "music piracy" or simply "piracy." For the purpose of our survey, music piracy refers to downloading popular music as digitally compressed audio files (such as MP3, WMA, FLAC, etc.) without paying for them and/or without the permission of the artist or organizations that hold the copyright for the song. This form of music piracy most commonly consists of accessing files through peer-to-peer (P2P) networks.

Although using this approach risked alienation of certain participants, it was deemed to be an appropriate solution and starting point for the remainder of the survey.

Survey Instruments

General, piracy, and network society demographics

To commence the survey, participants were asked to respond to a series of demographic questions related to their age, gender, location, level of education, and field of study. These questions were framed as string-entry and multiple selection. Although some researchers have established that certain demographic factors have a predictive capacity for engagement in music piracy, the demographic information collected for this study was primarily used for sampling purposes and, with the exception of age, were not incorporated into the analyses.

Following demographic information, participants were asked provide information about their usage of digitally compressed music files (such as MP3s). This section of the survey was roughly divided to ask participants about their legitimate experiences (e.g. purchasing music

through online stores) and their piracy experiences (e.g. downloading music without paying for it). Questions were formatted as multiple choice, multiple selection, or string entry. This data is used for descriptive purposes; even excluding outliers, the wide range of self-reported volume of piracy so dilutes the dataset that the power of this variable is almost nil. One caveat is the users' preferred services for downloading (both legitimate and pirated) music, which was used in conjunction with data from section three create preliminary groupings of participants' ICT capacities.

As outlined above in discussions of the network society perspective, technological efficacy is an indicator of experience users will have in online realms (Davies & Eynon, 2013). The reciprocal relationship of increased capacity and increased exposure suggests that individuals who are more tech-savvy will have greater exposure and more regular usage of technically advanced services and websites (Staksrud & Livingstone, 2009). The third portion of the demographics section in the administered survey provides a preliminary measure for technical capacity by asking participants to provide insight about their most regularly used websites, including

Participants were asked if they are active on social networking sites and, if they responded positiviely, they were then presented with a second question which listed a number of social network services as potential options. These options ranged from widely popular services (e.g. Facebook) to more specialized ones (e.g. tumblr). Similarly, participants were asked about engagement with community-driven services and presented with a list of options. Again, these ranged from commercially successful sites (e.g. YouTube) to deep-web services (e.g. ThePirateBay). In both cases a follow-up question asked participants to indicate the frequency

that they used each selected site using five point scale ranging from more than once a day to less than once a week.

Computer efficacy & trust

The principle means of testing for self-efficacy was adapted from Torkzadeh and Kouftero's (1994) Computer Self Efficacy Scale (CSE); however, due to the age of this study a modernized version was sought. Durndell and Haag's (2002) revision of the study eliminated several dated concepts from the CSE and incorporated several modern ideas. All told, their adapted CSE presents participants with a 29 point index of statements related to using and/or manipulating ICTs, and asks participants to rate their response to each statement using a five point Likert scale (Appendix A).

Durndell and Haag's work has formed the principle component for upwards of 400 studies of computer self-efficacy; while some adaptations have been made, these changes are largely related to the subject of study rather than improvement to the scale (Joyce and Kirakowski, 2015). To that end, Hargittai (2009) and Hargittai and Hsieh (2012) make the case for modernizing instruments measuring Internet capacity due to "the fast-changing nature of Internet tools and services" (p. 96). Consequently some adaptations were made to the CSE to include modern social network-related terms, and to eliminate obscure concepts (e.g. "handling a floppy disc correctly"). In total, twenty-one measures were used that asked users to rate their comfort with a given task using a five point Likert scale. The tasks increase in difficulty, from "using an operating system" to "using digital currencies (bitcoin)"; herein, this measure is referred to as the *Adapted Computer Efficacy Scale* (ACES).

The matrix for measures of trust was derived from a questionnaire that was designed and validated by Lwin and Williams (2003). This matrix is a 23 point attitudinal self-report scale and

was adapted from earlier work presented in Icek Ajzen's (1991) "Theory of Planned Behavior." Participants were asked to rate their response to various statements about protecting their online identity using a seven-point Likert system (Appendix B). The results from this study were used by Lwin and Williams (1991) to champion the concept of a "privacy calculus" (p. 269), and their model has gained traction as a tool for assessing how likely netizen is willing to share personal identifying information, vis-à-vis their trust of the online environment (Schreiner & Hess, 2015).

For the purposes of this study, Lwin and Williams' (2003) questionnaire was adapted in several ways (see appendix B). Items 12 through 19 were removed due to overlap with measures of differential association ("Social Learning Theory," below). Further, in keeping with Harggitai and Hsieh (2012), the trust index was modified to address a) changes to Internet usage with a focus on the rapid integration of social media into personal lives; and b) recent revelations of wide scale personal information from state and corporate interests. Seven additional statements were added to the matrix for a total of twenty measures. Finally, the trust index was formatted as a five point Likert scale. This ensured continuity with the CSE explored above; this adapted scale will hereby be referred to as the Adapted Privacy Calculus Scale (APCS).

Social Learning Theory

To test social learning theory, the current study used an instrument that was derived from Hinduja's findings (Appendix C). Four measures from Hinduja's instrument were retained with minor modifications (I-2; I-4; II-2; II-3), measuring differential association and imitation/modeling. An additional three measures were created to reflect definitions and differential association in a modern, web 2.0-enabled context. Additionally, four vignettes (each related to one of the social learning tenets) were included in the study (see discussion of vignettes, above), for a total of eleven measures of social learning.

Moral disengagement

The moral disengagement portion of this study's questionnaire reflects the use of Bandura's principles to examine online behaviours with an emphasis on piracy. To that end, one significant scholarly contribution has been located. Rogers (2001) administered a questionnaire of 114 items to a sample of approximately 120 self-defined computer criminals, using a combined social learning/moral disengagement perspective. Rogers' questionnaire, deemed the "Computer Crime Index and Social Learning Questionnaire" (CCISLQ), was validated as the primary data source for his dissertation.

Although Rogers' (2001) CCISLQ establishes the feasibility of using Bandura's principles for online studies, Rogers intentionally merged Akers' (1998) revision of neutralization and omitted some portions of Bandura's original construct. Further, Rogers' focus was on software piracy and the deep web rather than music piracy specifically. Rather than adapting Rogers' work, the current study used his language as inspiration and created a new set of measures that were extrapolated from those present in Bandura, Barbaranelli, Caprara,& Pastorelli's (1996) study (Appendix D), using language that reflects online behaviours rather than the physical aggression that the authors originally investigated.

As discussed above for tests of social learning theory, the moral disengagement portion of the survey was divided into two sections: first, a series of eight statements with a corresponding five point Likert scale for indicating agreement, and second, a set of four vignettes. For the statements, three addressed justifications; three minimized outcomes; and two focussed on victim blaming. For the vignettes, participants were presented with four statements and asked to rate how acceptable they felt the outcomes to be. Two of the vignettes focussed on

justification; one vignette focussed on minimizing outcomes; and one focussed on victim blaming.

Method

Sampling

This study sought voluntary participation via distribution of an Internet-based survey tool. Initially this study sought to limit data collection to undergraduate students attending one of Canada's accredited post-secondary education institutions; however, the survey was later opened to the broader Canadian public in efforts to increase the sample size. This decision was made based on prior research which found that factors predicting music piracy expressed in convenience samples of undergraduate students largely mirrored the factors present in a more general population sample, thus suggesting interchangeability between the two groups (Popham, 2011). Given the current state of Internet saturation in Canadian households, it was assumed that seeking participants through electronic communication via email, social media, and other tools would fulfil the sampling requirements set out below.

Survey administration and sample

The survey itself was distributed through several means. The survey was initially distributed through personal communications with administrators at post-secondary institutions, asking that the link to the survey be communicated to all students and faculty. Second, the survey was advertised through several major social-networking sites that cater to the targeted demographic (e.g. reddit.com, facebook.com, etc.). Third, the survey was communicated through two major Canadian journals. Finally, the survey was administered as part of a for-credit psychology program at a major Canadian university.

Full disclosure of the research intentions and intended use was provided at the outset of all communications, and participants were provided with the researcher's contact. This research

generally targeted participants who engage in electronic music piracy; however recent studies (i.e. Hinduja & Ingram, 2009; Popham, 2011) have suggested that the population saturation of this phenomenon may approach 100 per cent. To that end, the study incorporated an extremely inclusive methodology which only limited potential participants according to geographic conditions (i.e. living outside of Canada). To elicit a greater response rate, prizes were offered to participants based on random drawings.

An electronic survey tool was developed and launched using the fluidsurveys platform. Data collection consisted of three overlapping campaigns. The first, a snowballing technique, was instigated through direct contact by the researchers either through email or social media postings on personal pages. Individuals who were reached during this campaign via email received a text-based message which included details about the study and ethical protocol (see appendix E). Individuals who were reached by social media received a link to the survey and landed on the information-consent letter (appendix F). This campaign was initiated in on April 27th, 2015 and concluded on September 14th, 2015.

Three advertisements, along with limited copy, were created which connected participants to the survey via a direct link (see appendices A). In addition, and accompanying Facebook page for the survey was created which provided would-be participants an opportunity to communicate with the researchers and/or refer to for future updates. This campaign ran from August 11th, 2015 until September 12th, 2015. The advertisement was displayed to 70,314 people and received 635 visits (not to be confused with completed surveys) for a total cost of \$201.67.

The third campaign made use of the news aggregate website reddit.com to communicate the survey. Reddit is an online community which allows any registered user to create

"subreddits" or forums to discuss specific topics; users may then subscribe to these forums and post content in the form of links or text comments, and other users may respond. The researchers used this feature of the website to communicate the survey in several of the most highly populated Canadian university subreddits representing most of Canada's geographic regions. The survey was submitted as a new topic in each forum with a direct link to the survey, and the REB-approved copy used in advertisments was posted as text in attached discussions. The reddit campaign commenced on September 10th, 2015 and concluded on September 14th, 2015. A total of 939 responses were received across all three campaigns. After several rounds of data cleansing, this number was reduced 616 viable cases.

Data analysis

In line with the principals of effective quantitative research outlined by Nicholson (2000), and within the framework of critical empirical social research (Stage, 2007), I made use of multiple statistical tests to ensure triangulation of the findings and to identify alternative explanatory frameworks. This included a process of data-reduction known as principal component analysis (PCA); bivariate measures of correlation; analysis of variation (ANOVA); and multiple linear regression (MLR). Generally, the thrust was that statistically reliable groupings of each dependent variable (PCA) would be correlated with a series of independent variables using either a Pearson's product-moment bivariate correlation (Pearson's r) or ANOVA. Significant relationships would then be scrutinized and used to produce regression models (MLR) which identifies the cumulative impact of each independent variable on the dependent variable. Given the flow of the hypotheses listed above, a significant model for the dependent variable in hypothesis one indicates that it can be used as an independent variable for hypothesis two; similarly, a significant finding for the dependent variable in hypothesis two

indicates that it can be used as an independent variable for hypothesis three. The remainder of this section provides additional information about the methods of data analysis used in this study.

Principal components analysis

A principal components analysis (PCA) dimensional reduction process was used to identify any significant characteristics within the Adapted Computer Efficacy Scale (ACES) and the Adapted Privacy Calculus Scale (APCS). This portion of analysis assumed that difficult-to-measure factors are in both of the above mentioned indices (i.e., a faithful measure of one's self-efficacy, etc.), and also that communality exists within each index. A PCA test addressed these assumptions and identified underlying latent factors. This exploratory method aided the research by reducing the volume of statistical data for each index while providing reliable indicators.

Factor analysis works by extracting the principal components in a set of variables that best explain their variance and then creating a new model which reflects the standing that each variable has on predicting an outcome. This finding is augmented using the varimax rotation method, which shifts the axes for each factor in an attempt to address the most variance possible, and to identify the regression line with best fit. Using this statistical exercise I was able to effectively reduce a large volume of data into a more manageable number of predictive variables.

Upon conducting data reduction procedures using the Statistics Package for the Social Science (SPSS) software, a series of component score were created for each response based on the linear composite of the optimally-weighted original variables. Essentially, the software determines regression weights for each variable within a component and then multiplies the recorded score for the variable by the calculated weighting. The products of these calculations are then summed on a case-by-case basis for each factor; this process provides a standardized mean of 0 and a standard deviation of +/- 1 for each component. Ultimately this process provides

an effective, limited subset of variables that is highly reflective of variables from which it was drawn (DiStefano, Zhu, & Mîndrilă, 2009). The resulting factor scores established by the successful principle components analysis of the ACES and APCS were then used as interval/ratio-level variables for further analysis.

Bivariate analysis

Bivariate statistics can be used for identifying the presence and strength of relationships between two variables (either categorical or continuous), and provide a useful preliminary step for identifying potential factors in a predictive model such as a linear regression (explored below). For the present study, a Pearson's product-moment bivariate correlation test was used to assess these relationships as it provides a robust measure of association for variables of interval/ratio levels of measurement (Healy, 2005).

The bivariate analysis method used herein involved the construction of a correlation matrix in SPSS drawing from the usable interval/ratio variables described above. Notably, an effective measure for time spent on social media or aggregate websites could not be developed due to missing data. Based on the language of the first hypothesis, the factor scores for the APCS were identified as dependent variables, along with the importance-weighted scores for aggregate and social media website usage. Additionally, the factor scores for the ACES were used as independent variables, along with: Estimated age; number of years of Internet experience; and self-rated computer expertise.

Analysis of variance

While the Pearson's product-moment bivariate correlation is an effective tool for analyzing relationships between continuous variables, it is not as effective as other tools for investigating relationships with other forms of data. To that end, several analysis of variance (ANOVA) tests were undertaken to investigate any relationships between ordinal level data, which had been

excluded from the previous test. The ANOVA tests were categorized in two waves; they looked for differences in the "trust measure – protective capacity" dependent variable based on respondents' college of education; years of post-secondary education; gender; and overall computer skill (repeated from the above-mentioned bivariate tests for confirmatory practice). The second wave compared the same independent variables against the other identified dependent variable, "weighted aggregate site score."

ANOVA is a procedure that analyses the significance of the difference between sample means, organized categorically. In general terms, an ANOVA test calculates the amount of variation of a given dependent variable between the categories of an independent variable and compares it to the variation within the categories. If the variation between categories exceeds the variation within categories it can be said that there is some form of relationship between independent and dependent variables; however, additional post-hoc tests are needed to explain the nature of the relationship.

Multiple linear regression

One of the most effective tools for estimating the impact of multiple independent variables on a dependent variable is a regression analysis (Healy, 2007); and given the continuous nature of the dependent variable, multiple regression poses the most appropriate test.

Multiple regression is an extension of linear regression that allows researchers to summarize linear relationships among two or more independent and one dependent variable (Healy, 2007). The process commences with the calculation of the multiple correlation efficient, a generalization of the Pearson correlation coefficient (R). Further, an adjusted R^2 (which accounts for differences in the explanatory power of regression models) can be interpreted as the percentage of variance in the dependent variable explained by a model.

Secondly, an ANOVA is computed to test for the significance of the regression model in predicting change in the dependent variable by calculating the ratio of the mean sum of squares for regression to the mean sum of squares for the residuals. The resulting F score (F) is indicative of the goodness of fit for the model, as well as its statistical significance.

Finally, regression coefficients (unstandardized and standardized) are calculated to illustrate the rate of change in the dependent variable. The unstandardized coefficient (B) is the slope of the regression line calculated separately for each independent variable, and can be used to illustrate the rate of change between increases (or decreases) in the dependent variable based on one unit change in the independent variable.

The drawback to unstandardized coefficients is that they cannot easily be compared to one another due to differences in the units of measure, so standardized variables are used. The regression coefficients are standardized by converting each score into a z-score, and then recalculating the regression slopes and Y intercept. The resulting beta-weight (β) provides a proportional measure of change that can be compared across all independent variables. As might be imagined, this potentially arduous task is greatly simplified by specialized software.

Limitations

As outlined above, this study develops a CSR perspective using quantitative methodologies. In doing so one must be prepared to address the historical wrongs from the social sciences that have been championed on the epistemological presumption of a pragmatic scientific method in empirical studies. For example, Cokely and Awad (2013) warn that

Given the history of quantitative methods being used to justify and perpetuate existing prejudices, the idea that quantitative methods can be used in a multiculturally competent manner to promote social justice does not always come easily. (p. 30)

Of course this does not preclude the use of quantitative methods but rather demands that the researcher conduct their work in a manner that honors multiple interpretations of a single social interaction. This principle, expressed by C. Wright Mills (1959) more than half a century ago, holds fast: "the methodological inhibition stands parallel to the fetishism of the Concept" (p.50).

In my study, I attempt to ameliorate this concern by avoiding inappropriate null hypothesis significance testing, informed by Nickerson (2000). Generally, this entails avoiding the assumptive principle that failure to disprove the null hypothesis automatically discounts further investigation. This principal, often encountered in statistics textbooks, proffers a dichotomous evaluative paradigm that can lead researchers toward type I errors – assuming that a true null hypothesis means there is no further value in the investigation, or throwing the proverbial baby out with the bathwater. Similarly, I will avoid presumptive affirmation from rejections of the null hypothesis (type II errors); as Nickerson (2000) warns, "Sometimes researchers appear to assume that rejection of the null hypothesis is by itself an adequate basis for accepting a theory that implies the null hypothesis is false" (p. 254). Rather, my research will focus on developing an interpretive analysis of the statistical tests to avoid tunnel vision and emphasize alternative frameworks that differ from the hypothesis should they appear.

Summary

This research was designed to test the persistence of music piracy amidst networks of rapid communication. I employed an empirical methodology that uses established measures related to each of the hypotheses proffered above. Specifically, hypothesis one (differential online experiences) uses a combination of Torkzadeh and Kouftero's (1994) Computer Self

Efficacy Scale (CSE) and Lwin and Williams' (2003) measures of online trust to produce an adapted model for indicators of a networked society. It also uses an updated version of Hinduja's Hinduja's (2006) measures of social learning theory as they pertain to music piracy to test hypothesis two (group-specific social learning of music piracy behaviours), and a modernized adaptation of Bandura, Barbaranelli, Caprara,& Pastorelli's (1996) measures for moral disengagement to test hypothesis three (group-sepecific moral disengagement from harm related to music piracy). Together, these measures should produce an integrated theory that illustrates how a plurality of individuals may come to uniformly engage in a single behaviour along vastly different pathways.

CHAPTER 6 RESULTS AND FINDINGS

Introduction

The methodology described above was operationalized using sample data collected through online surveys. The purpose of this chapter is to outline the results from these analyses and to contextualize the resultant findings. It begins with a review of the demographics and descriptive statistics from the sample group, followed by a series of tests for each of the three hypotheses. Finally, this chapter concludes with a hypothesis-by-hypothesis discussion of the findings.

Demographics

Overall self-identifying males were slightly overrepresented in the sample at 60.6 percent (n=373) compared to females (36.9%, n=227) or those identifying in non-cisgender (2.3%, n=14) relative to the distribution of the general Canadian population (Statistics Canada, 2015). The mean self-reported age for this sample on the eve of December 31st, 2014 is 25.7 with a standard deviation of 8.1 and a range of 50 years (min=16, max=66). Participants aged 18 to 35 accounted for 90.1% of respondents (n=553). These statistics are outlined in Table 6.1

Table 6.1: General demographic information

Variable	N	%	X	SD
Gender	614	99.6		
Male	373	60.6		
Female	227	36.9		
Trans/Other	14	2.3		
Age	614	99.6	25.7	8.1
35 and younger	557	90.8	23.7	4.7
36 and older	57	9.2	45.0	9.4

Geographically, responses were received from participants in all provinces, as well as the Northwest Territories. The geographic location of responses are tabled below along with 2015 population data from Statistics Canada (Statistics Canada, 2015) to provide an indication of relative representativeness. Although there were some over- and under-representations, the sample is strongly comparable to the majority of Canada's regions. Table 6.2 presents the geographical dispersion of respondents contrasted against national demographics.

Table 6.2: Geographic distribution

Geography	N	%	Nat'l. %
Location	616	100	
BC	120	19.5	13.0
AB	162	26.3	11.7
SK	55	8.9	3.2
MA	2	0.3	3.6
ON	192	31.2	38.5
QC	78	12.7	23.0
NB	1	.2	2.1
NS	2	.3	2.6
PEI	1	.2	.4
NFLD	1	.2	1.4
YK	0	0	.1
NWT	2	.3	.1
NVT	0	0	.1

The large majority of participants (N=415, 67.4%) identify themselves as current students, ranging from first year undergrad through various graduate programs (Table 6.3, below). Most of these are undergrad students (n=310, 74.5%). Only one respondent identified stated enrollment in college. The colleges of arts and science are disproportionately represented in this sample, accounting for 60% of all active students (n=232) compared to approximately 40% nationally (Statistics Canada, 2007). In addition, the vast majority of respondents who did

not identify as students indicated that they have completed at least some post-secondary education, and most (n=163, 81.9%) have graduated from their program.

Table 6.3: Education levels and disciplines

Current s	tudents		Major (by	college)		Non-students			
	N	%		N	%		N	%	
Total	415	67.4	Total	384	62.3	Total	199	32.3	
Undergrad yr 1	53	8.6	Agriculture	5	.8	No PS	9	1.5	
Undergrad yr 2	71	11.5	Arts & Science	232	38	Some PS	27	4.4	
Undergrad yr 3	62	10.1	Business	21	3	Graduated PS	163	26.5	
Undergrad yr 4	90	14.6	Education	14	2				
Undergrad yr 5+	34	5.5	Engineering	62	10.1				
MA	30	4.9	Kinesiology	5	1				
PhD	24	3.9	Law & Medicine	19	3.1				
Grad Other	7	1.1	Other	26	4.2				
College yr 1	0	0							
College yr 2	0	0							
College yr 3	1	.2							

Beyond personal demographic information, a series of nominal questions were used to construct an understanding of the nature digital music file usage, general personal Internet use characteristics, and specific personal Internet use characteristics. Table 6.4, below, illustrates participants' responses to questions about digital music. Of interest, 97% (n=599) of respondents indicated that they use digital music in some format, and 88% of those (n=526) had, at least historically, pirated digital music. Despite the near universality of music piracy amongst this sample this variable has statistical power to predict medium-large effect size (p < .05). Proportionately fewer (n=392, 63.6%) reported accessing digital music files through legitimate means (i.e. purchasing), and the statistic again has a very high power.

Table 6.4: Use of digital music files

Variable	N	%	X	SD
Use digital music				
Yes	599	97.2		
No	17	2.8		
Dig. music files	599	97.2	2829.3	5067.9
Legit. Dig. music				
Yes	392	63.6		
No	207	33.6		
Num. files / year	403	65.4	152.8	722.8
Pirate dig. music				
Yes	526	85.4		
No	73	12.2		
Num. files / year	528	85.7	215	545
Total files	528	85.7	1396.6	3382.7
Stream music				
Yes	11	1.8		
No	4	0.6		

Table 6.5 illustrates a generalized summary of the characteristics of participant's Internet use. Although the vast majority (n=555, 90.1%) were active on some form of social media, fewer than half (n=277, 45%) indicated that they used more advanced aggregate news/interactive sites. Participants also indicated an average of 14.6 (SD=4.1) years of experience using the Internet, and an average age of 25.7 years.

Table 6.5: Internet use characteristics

Variable	N	%	X	SD
Active social media	615	99.8		
Yes	555	90.1		
No	60	9.7		
Active on agr. sites	616	100		
Yes	277	45.0		
No	338	55.0		
Years using Internet	616	100	14.6	4.1

Table 6.6 looks examines more closely the nature of social media usage by participants. As is illustrated below, the single largest commonality is the use of Facebook (n=530, 86%), followed by popular use of Instagram (n=260, 42.2%); Twitter (n=254, 41.2%); Snapchat (n=254, 41.2%); and LinkedIn (n=211, 34.3%).

Table 6.6: Social media usage characteristics

Variable	N	%	X	Mode	SD
Pinterest	110	17.9	2.5	1	1.5
Twitter	254	41.2	3.5	5	1.5
Facebook	530	86	4.6	5	0.8
Instagram	260	42.2	4.0	5	1.3
Google+	82	13.3	2.5	1	1.7
LinkedIn	211	34.3	2.3	1	1.3
Tumblr	81	13.1	3.2	5	1.6
Snapchat	254	41.2	4.1	5	1.2
Omegle	6	1	1.3	1	0.8
Vine	27	4.4	2.3	1	1.6
Other	40	6.5	4.5	5	1.0

Table 6.7 identifies the usage levels for non-social media platforms, generally referred to as aggregate or interactive forum websites. Far fewer respondents indicated that they made use of these services; the single most commonly used site is Reddit (n=249, 40.4%). The next closest website is YouTube (n=76, 12.3%) and the remainder are used by less than 10 percent of the sample.

Table 6.7: Aggregate websites/forums usage characteristics

Characteristics										
Variable	N	%	X	Mode	SD					
Reddit	249	40.4	4.6	5	0.96					
Digg	1	0.2	1	1						
4chan	30	4.9	3.6	5	1.6					
DeviantArt	10	1.6	1.7	1	1.3					
Flickr	8	1.3	2.6	3	1.3					
Pirate Bay	5	0.8	2.4	1	1.3					
Youtube	76	12.3	2.4	5	1.3					
Imgur	35	5.7	4.1	5	1.1					
Specialized	48	7.8	3.5	5	1.3					
Other	15	2.6	3.7	5	1.4					

Hypothesis testing: Hypothesis I

Hypothesis I: Individuals with different technical capacities experience and trust the Internet in different ways.

Pre-test

The PCA reduction was run on each index separately; 20 of the 21 questions present in the ACES were used (q1, "your overall expertise with computers" was withheld as a separate IV) while all 20 of the APCS were used. The suitability of PCA was assessed prior to analysis. In both cases, inspection of the correlation matrix showed that all variables had at least one correlation coefficient greater than 0.3. For the ACES the overall Kaiser-Meyer-Olkin (KMO) measure was 0.92 with individual KMO measures all greater than 0.8, classifications of 'meritorious' to 'marvellous' (Kaiser, 1974). Similarly, the APCS KMO score was 0.83 and all individual KMO measures exceeded 0.7, ranging from 'middling' to 'marvellous.' In both cases, Bartlett's Test of Sphericity was statistically significant (p < 0.0005), indicating that the data was likely factorizable.

The ACES PCA revealed three components which had eigenvalues greater than one and which explained 40.2%, 12.9%, and 8.1% of the total variance, respectively, and 61.2%

cumulatively. Visual inspection of the scree plot indicated that all three components should be retained (Cattell, 1966). In addition, upon a qualitative review of the questions represented in each factor confirmed that a three-component solution met the interpretability criterion. A Varimax orthogonal rotation was employed to aid interpretability. The rotated solution exhibited 'simple structure' (Thurstone, 1947). The interpretation of the data was consistent with the stepwise level of difficulty represented in the ACES, with strong loadings of "simple" tasks on Component 1, "moderate" tasks on Component 2, and "difficult" tasks on Component 3.

Component loadings and communalities of the rotated solution are presented in Table 6.8 below, and the sample's descriptive statistics are presented in Table 6.12.

Table 6.8: ACES component loadings

	Component 1	Component 2	Component 3	
	"Difficult"	"Simple"	"Moderate"	
Assembling a computer from parts	.825	.205	111	
Formatting a hard drive	.809	.321	088	
Installing an operating system	.765	.368	067	
Writing a computer program	.763	.098	.106	
Using Rich Site Summaries (RSS)	.706	.086	.320	
Using digital currencies (bitcoin)	.699	009	.166	
Creating a website	.652	.197	.368	
Protecting yourself from phishing	.587	.390	.170	
Using a web browser	.046	.785	.143	
Bookmarking a website	.025	.772	.143	
Researching an issue or question	.134	.726	.144	
Using an operating system	.404	.665	.043	
Downloading files	.356	.659	.157	
Setting/changing software preferences	.410	.649	.201	
Adding a web resource to favourites	.164	.643	.220	
Doing an advanced file search	.474	.558	.115	
Maintaining a blog	.263	.162	.765	
Tagging photos in social media	107	.378	.675	
Maintaining a podcast	.441	010	.661	
Using social media	079	.397	.639	
Variance explained	40.2%	12.9%	8.1%	

Table 6.9: Descriptives for ACES component loadings

	N	Min	Max	X	SD
Self-efficacy measure – difficult tasks	599	-1.89	3.37	.00	1.00
Self-efficacy measure – simple tasks	599	-7.34	1.32	.00	1.00
Self-efficacy measure – moderate tasks	599	-3.75	2.20	.00	1.00

The APCS PCA revealed four components which had eigenvalues greater than one explaining 27.8%, 19.8%, 7.5%, and 6.8% of the total variance, respectively, and 61.9% cumulatively. Visual inspection of the scree plot indicated that no additional components were present above the eigenvalue threshold of 1 (Cattell, 1966). Similar to the ACES PCA, visual review of the components revealed logical, if not natural, divided. As with above, a Varimax orthogonal rotation was employed and revealed a 'simple structure.' The components revealed by this process aligned with the conceptual underpinnings of each category (in a non-hierarchial manner), providing strong loadings for "data misuse;" "protective actions;" "data threats;" and "identity theft." Component loadings and communalities of the rotated solution are presented below in Table 6.10, and descriptive statistics are presented in Table 6.11.

Table 6.10: APCS component loadings

	Component 1	Component 2	Component 3	Component 4
	"data misuse"	"protective actions"	"data threats"	"identity theft"
I believe that my personal information will be misused by these agencies	.856	.024	.074	.071
I am concerned that government agencies have access to my personal information	.815	.052	.113	005
I believe that my personal information will be misused by these corporations	.807	.010	.160	.137
I am concerned that private corporations have access to my personal information	.799	044	.187	.189
I am concerned about the amount of data about me that is available online	.582	066	.407	.280
I believe that individuals or organizations could misuse my data if they accessed it	.566	049	.425	.156
I know how to protect my personal information from these corporations	057	.846	087	.034
I know how to protect my personal information from identity thieves	009	.788	.085	101
I know how to protect my personal information from these agencies	109	.786	148	.148
I know how to protect my personal information online	107	.725	.107	134
I am confident that I can avoid being caught doing something wrong online	.045	.664	252	066
I frequently use technologies to hide my digital trail	.273	.654	.051	028
Overall, I see no real threat to my privacy from participating in social network websites	124	.083	683	.030
I believe that there are individuals or organizations that can access my personal information	.163	015	.641	.051
I feel concerned about sharing some personal information online	.217	003	.630	.190
I am concerned that identity thieves can access my personal information	.192	142	.004	.871
I believe that my personal information will be misused by these thieves	.193	.032	.235	.799
Variance explained	27.8%	19.8%	7.5%	6.8%

Table 6.11: Descriptives for APCS component loadings

	N	Min	Max	X	SD
Internet Trust score 1 (Misuse)	598	-2.99	2.10	.00	1.00
Internet Trust score 2 (Protection)	598	-2.59	2.64	.00	1.00
Internet Trust score 3 (Accessing)??	598	-3.75	2.63	.00	1.00
Internet Trust score 4 (Thieves)	598	-3.39	2.36	.00	1.00

Bivariate statistics

Correlation

The resulting matrix from this test is provided in Table 6.12 below. Rather than discussing each of the relationships presented in the matrix, the discussion will focus on identifying the most effective dependent and independent variables. For instance, the majority of the trust measures bore very few relationships of significance or strength; excepting "trust measure – protective capacity," the strongest observed relationship was a correlation was between "trust measure – data misuse" and "self-efficacy measure – difficult tasks," which was in the weak-moderate range (r=0.176, p<0.01). Similarly, only one relationship of significance was noted with the predicted dependent variable of "weighted social media score." This variable is significantly and positively correlated with "self-efficacy – moderate tasks" (r=0.319, p<0.01).

Table 6.12: Hypothesis I bivariate analysis matrix

		$\mathbf{X_1}$	\mathbf{X}_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}	X ₁₂
X_1	Estimated age												
X_2	Years of Internet use	.544**											
X_3	Self-rated computer expertise	116**	.080*										
X_4	Self-efficacy												
	measure – difficult tasks	153**	.048	.394**									
X_5	Self-efficacy measure – simple tasks	100*	.116**	.612**	$.000^{1}$								
X_6	Self-efficacy measure – moderate tasks	146**	047	.055	$.000^{1}$	$.000^{1}$							
X_7	Trust measure – data misuse	040	038	.014	.176**	018	022						
X_8	Trust measure – protective capacity	198**	009	.333**	.517**	.154**	.106*	.000					
X_9	Trust measure – data threats	.007	.023	.079	.034	.151**	093*	.000	.000				
X_{10}	Trust measure – identity theft	.133**	.035	110**	061	113**	008	.000	.000	.000			
X ₁₁	Weighted social media score	021	.027	011	168**	.051	.319**	055	062	056	.064		
X ₁₂	Weighted aggregate site score	165**	097*	.195**	.239**	.142**	.102*	.047	.276**	.044	123**	.072	

^{**} Correlation is significant at the 0.01 level (2-tailed).

^{*} Correlation is significant at the 0.05 level (2-tailed).

Conversely, two predicted dependent variables correlated significantly with a number of independent variables. For example "trust measure – protective capacity" was significantly related to 6 variables, including "estimated age" (r=-0.198, p<0.01); "self-rated computer expertise" (r=0.333, p<0.01); "self-efficacy measure – difficult tasks" (r=0.517, p<0.01); "self-efficacy measure – simple tasks" (r=0.154, p<0.01); "self-efficacy measure – moderate tasks" (r=0.106, p<0.05); and "weighted aggregate site score" (r=0.276, p<0.01). Additionally, "weighted aggregate site score" was significantly related to seven variables, including "estimated age" (r=-0.164, p<0.01); "years of Internet use" (r=-0.097, p<0.01)"; "self-rated computer expertise" (r=0.195, p<0.01); "self-efficacy measure – difficult tasks" (r=0.293, p<0.01); "self-efficacy measure – simple tasks" (r=0.142, p<0.01); "self-efficacy measure – moderate tasks" (r=0.102, p<0.05); "trust measure – protective capacity" (r=.276; p<0.01); and "trust measure – identity theft" (r=-0.123, p<0.01).

Analysis of variance

The ANOVA for the first dependent variable yielded two additional potential independent variables for future regression analysis. As illustrated in Table 6.13, significant between-group differences were noted for both Gender (F=21.0, p < 0.0005) and self-rated computer expertise (F=20.8, p < 0.0005). Further evaluation of the nature of these relationships is warranted and is discussed below.

Table 6.13: Hypothesis I ANOVA

	df	F	ω^2	p
DV trust measure – protective				
capacity				
College	7	1.447	0.027	0.185
Years	7	1.374	0.027	0.215
Gender	2	21.001	0.071	0.000**
Self-rated computer	4	20.837	0.141	0.000**
expertise	4	20.837	0.141	0.000**
DV weighted aggregate site				
score				
College	7	0.680	0.012	0.689
Years	7	1.511	0.028	0.162
Gender	2	7.887	0.025	0.000**
Self-rated computer	4	(((5	0.042	0.000**
expertise	4	6.665	0.042	0.000**

The one-way ANOVA for Gender on "trust measure – protective capacity" demonstrated statistically significant differences between three gender groups (F (2,595) = 21.0, ω^2 =0.063, p<0.0005). Given homogeneity of variance (Levene's test, p=0.163), a Tukey post hoc test was conducted to identify the nature of the relationship and identified a statistically significant decrease from male to female groups in "trust measure – protective capacity" scores. Specifically, the mean score of 0.20 \pm 1.0 for males dropped to -0.33 \pm 0.90 for females for a total change of 0.53 (95% C.I., 0.34 to 0.72, p <0.0005). A negative mean difference male to other (0.30) and a positive mean difference from other to female (0.23) was recorded but were not statistically significant (p=0.496 and 0.673, respectively).

A follow-up ANOVA was processed to evaluate changes between groups for self-rated computer expertise (categorized from 1 to 5, with 1 being lowest) similarly identified statistically significant changes (F (4, 591) = 20.8, ω^2 =0.118, p<0.0005). In this case, post hoc tests could not be conducted to decipher the nature of the relationship; however, examination of differences

in mean "trust measure – protective capacity" amongst groups showed a trend of continuous increase from lowest to highest self-rated computer scores. The second wave of ANOVA again illustrates two statistically significant group-wise differences. Specifically, both gender and self-rated computer expertise bore between group differences (F=7.89, p<0.0005 and F=6.67, p<0.0005 respectively).

The one-way ANOVA for Gender on "weighted aggregate site score", F (3, 611) = 7.89, ω^2 = 0.02, p<0.0005, demonstrated statistically significant differences between three groups. To establish the nature of the relationship, a Games-Howell post hoc test was undertaken because homogeneity of variance could not be assumed (Levene's test, p<0.0005), and identified a significant decrease in average "weighted aggregate site score" from male to female. Specifically, a statistically significant decrease in mean score of "weighted aggregate site score" from .69 \pm .96 for males to .4 \pm .70 for females was recorded (x=0.29, 95% C.I., 0.12 to 0.47, p < 0.0005). A slight decrease from male to other (.01) and a slight increase from other to female (.19) was noted, but neither were statistically significant (p=0.892 and 0.725, respectively)

A second one-way ANOVA for self-rated computer expertise also demonstrated significant differences between groups (F (4,609) = 6.67, $\omega^2 = 0.04$, p<0.0005). Post hoc tests could not be conducted due to limited responses in one category; however, cursory review of changes in mean across categories illustrated a persistent trend of positive growth in mean "weighted aggregate site score" from the lowest ranked group to the highest. This aligned with the hypothesis.

Multiple linear regression

A potential model for predicting change in the variables "trust measure – protective capacity" and "weighted aggregate site score" was defined using significant relationships. For

the current analysis, two multiple linear regression tests were completed. The first looked at the combined impact of the independent variables noted above on the dependent variable "trust measure – protective capacity;" while the second MLR included the previous dependent variable as a potential predictor variable for "weighted aggregate site score." In both cases, the assumptions of linearity, independence of errors, homoscedasticity, unusual points, and normality of residuals were met. Table 6.14, below, illustrates the regression coefficients, standard errors, and significance for each independent variable. Combined, these variables predicted "trust measure – protective capacity," F(5,573)=48.448, p < 0.0005, adj. $R^2 = 0.29$; however, as illustrated, only "estimated age," "Self-efficacy measure – difficult tasks," and "Self-rated computer expertise" added statistically significantly to the prediction (p < 0.01)

The second MLR contributed to the prediction of "weighted aggregate site score;" however, to a lesser extent (F (6,572) = 12.235, p < 0.0005, adj. R²=.10. Again, only a few variables had a statistically significant impact, including "Self-efficacy measure – difficult tasks," "Self-rated computer expertise," and "trust measure – protective capacity" (p < 0.05).

Table 6.14: Hypothesis I Multiple Linear Regression

_		Trust measure	e	Weight	Weighted aggregate site score				
	В	Std. Error	β	В	Std. Error	β			
Intercept	353	.290		.647	.291				
Estimated age at January 1, 2015	017	.005	134**	008	.006	074			
Gender	022	.075	012	044	.074	027			
Self-efficacy measure – difficult tasks	.443	.043	.440**	.093	.047	.105*			
Self-rated computer expertise	.161	.052	.121**	.105	.052	.089*			
How long an Internet-connected device	.033	.031	.045	017	.011	079			
Trust measure – protective capacity	-	-	-	.146	.042	.164**			
$Adj. R^2$.29			.10				
F (5,573); (6,572)		48.45**			12.24**				

^{*} Correlation is significant at the 0.005 level (2-tailed); ** Correlation is significant at the 0.05 level (2-tailed).

Hypothesis testing: Hypothesis II

The indicators of social learning vary across online experiences.

Pre-test

As with above, a PCA dimensional reduction process was used to reduce the number of testable dependent variables. Review of the correlation matrix showed that all variables had at least one correlation coefficient greater than 0.25. The overall Kaiser-Meyer-Olkin (KMO) measure was 0.68 and all but three variables were greater than 0.6 (gutter 0.53), classifying from mediocre to meritorious (Kaiser, 1974). Bartlett's Test of Sphericity was statistically significant (p < 0.0005), indicating that the data was likely factorizable.

In this case, the PCA revealed four components with eigenvalues greater than one, explaining 24.1, 21.4, 11.5, and 9.3 percent of the total variance respectively; this was confirmed upon reviewing the scree plot, and the presented categories reflected the tenets social learning theory.

The Varimax rotated solution exhibited 'simple structure' (Thurstone, 1947). The interpretation of the data was consistent with the four main tenets of social learning theory; strong loadings of "modelling" were observed on component one, "differential association" on component two, "differential reinforcement" on component three, and "definitions" on component four. Component loadings and communalities of the rotated solution are presented in Table 18. The SPSS-generated scores for each of the components provides a viable dependent variable for future tests of association and prediction.

Table 6.15: Social learning tenets component analysis

	Component 1 "Modelling"	Component 2 "Dif. Reinf."	Component 3 "Dif. Assoc."	Component 4 "Definitions"
Response to vignette one (modelling)	.878	.098	100	.087
Response to vignette four (modelling)	.861	.137	009	.080
I believe that music piracy should be against the law (modelling)	727	025	.050	.258
The friends I know online are supportive of pirating music (differential association)	.022	.803	.150	.074
The websites I visit and materials I read online are supportive music piracy (differential association)	.052	.758	.123	030
The friends I know in person are supportive of pirating music (differential association)	.222	.756	.128	100
I learned how to pirate music from friends I mainly know online (differential reinforcement)	103	.165	.873	.049
I learned how to pirate music from online, written resources (differential reinforcement)	.041	.106	.822	073
I learned how to pirate music from friends I mainly know in person (differential reinforcement)	151	.308	.424	.228
Response to vignette two (definitions)	.217	021	.056	.825
Response to vignette three (definitions)	403	022	010	.696
Variance explained	24.1%	21.4%	11.5%	9.3%

Bivariate Statistics

Correlation

Based on the PCA test, a correlation matrix was constructed using the Pearson's product-moment bivariate correlation test. In this case, the correlation matrix was divided into two separate matrices; it was deemed appropriate to divide it given that we are only concerned with association of a host of independent variables with four dependent variables, and not the interactions between independent variables. Preliminary analyses showed that all potential relationships between independent and dependent variables were linear and reasonably aligned with normal distribution per a series of Shapiro-Wilks tests (p > 0.05).

The resulting matrices (Tables 6.16 and 6.17 below) indicated a number of relationships worth reviewing. In total, 23 significant relationships (p < 0.05) were observed; however, the strength of several should be interpreted as "negligible" to "weak" (Healy, 2008). Any variables that both a) presented relationships fell below a threshold of r < 0.150 and b) were correlated with only one dependent variable were eliminated from analysis. Any variables with multiple correlations but all below a threshold of r < 0.110 were also eliminated. Thus, the following variables were retained for further analysis: "estimated age;" "number of pirated songs;" "Self-efficacy measure – difficult tasks;" "Self-efficacy measure – simple tasks;" and "Trust measure – protective capacity."

Table 6.16: Hypothesis II bivariate analysis (first wave)

		\mathbf{X}_{1}	\mathbf{X}_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9
X_1	Weighted aggregate site score									
X_2	Weighted social media site score	.072								
X_3	Estimated age	165**	021							
X_4	Years of Internet use	097*	.027	.544**						
X_5	Num. pirated songs (est.)	$.097^{*}$	014	025	.027					
X_6	Num. legitimate songs (est.)	.079	.055	040	.008	.057				
X_7	Social learning: Modelling	.134**	.000	373**	102*	.158**	.036			
X_8	Social learning: Dif Assoc	013	.081*	126**	059	.032	.001	.000		
X_9	Social learning: Dif Reinf	.011	060	.033	049	.066	.103*	.000	.000	
X_{10}	Social learning: Definitions	058	025	.075	.072	053	.033	.000	.000	.000

^{**} Correlation is significant at the 0.01 level (2-tailed).

 $[\]ensuremath{^{*}}$ Correlation is significant at the 0.05 level (2-tailed).

Table 6.17: Hypothesis II bivariate analysis (second wave)

		\mathbf{X}_{1}	\mathbf{X}_2	X_3	X_4	X_5	X_6	X_7	X_8	X_9	X_{10}	X_{11}
X_1	Self-efficacy measure – difficult tasks	-										
X_2	Self-efficacy measure – simple tasks	.000	-									
X_3	Self-efficacy measure – moderate tasks	.000	.000	-								
X_4	Trust measure – data misuse	.176**	018	022	-							
X_5	Trust measure – protective capacity	.517**	.154**	.106*	.000	-						
X_6	Trust measure – data threats	.034	.151**	093*	.000	.000	-					
X_7	Trust measure – identity theft	061	113**	008	.000	.000	.000	-				
X_8	Social learning: Modelling	.134**	.178**	.028	.058	.141**	079	108**	-			
X_9	Social learning: Dif Assoc	040	.127**	.037	001	.070	.072	002	.000	-		
X_{10}	Social learning: Dif Reinf	.112**	028	.026	.062	.055	.057	.078	.000	.000	-	
X_{12}	Social learning: Definitions	203**	.034	.026	099*	116**	.069	091*	.000	.000	.000	_

^{**} Correlation is significant at the 0.01 level (2-tailed).

^{*} Correlation is significant at the 0.05 level (2-tailed).

Analysis of variance

Once again, several of the identified independent variables were categorical in nature and thus the ANOVA procedure was used to test for correlation. These variables included "gender," "self-rated computer expertise," "downloads pirated music," and "downloads legitimate music." The results from these tests are illustrated in table 18 below.

Table 6.18: Hypothesis II ANOVA

	df	F	ω^2	р
Modelling				
Gender	2	2.496	.005	.081
Self-rated computer expertise	4	4.463	.023	.001
Downloads legitimate music	1	52.825	.082	.000
downloads pirated music	1	119.817	.170	.000
Differential Association				
Gender	2	3.540	.008	.029
Self-rated computer expertise	4	3.600	.017	.007
Downloads legitimate music	1	0.602	.000	.438
downloads pirated music	1	0.025	.000	.875
Differential Reinforcement				
Gender	2	0.881	.000	.415
Self-rated computer expertise	4	1.692	.004	.150
Downloads legitimate music	1	0.060	.000	.807
downloads pirated music	1	26.105	.041	.000
Definitions				
Gender	2	8.061	.023	.000
Self-rated computer expertise	4	1.981	.006	.096
Downloads legitimate music	1	14.983	.024	.000
downloads pirated music	1	2.34	.002	.127

As with the pearson's r tests outlined above, it appears that there is no single continuous predictive independent variable for the four tenets of social learning. As outlined above, the modelling dependent variable is significantly correlated with "self-rated computer expertise" (F (4,589) = 4.5, $\omega^2 = 0.02$, p = 0.001); "downloads legitimate music" (F (1,578) = 52.8, $\omega^2 = 0.08$, p < 0.0005); and "downloads pirated music" (F (1,578) = 119.8, $\omega^2 = 0.17$, p < 0.0005).

Alternatively, the differential reinforcement dependent variable was only significantly correlated with "self-rated computer expertise" (F (4,589) = 3.6, $\omega^2 = 0.02$, p=0.007). The differential association dependent variable was only significantly correlated with "downloads pirated music" (F (1,578) = 24.8, $\omega^2 = 0.04$, p < 0.0005), whereas the definitions dependent variable was correlated with both "gender" (F (2,591) = 8.1, $\omega^2 = 0.02$, p < 0.0005) and "downloads legitimate music" (F (1,578) = 15.0, $\omega^2 = 0.02$, p < 0.0005).

Multiple linear regression

An MLR procedure was used to test the impact of the multiple independent variables described above on each of the four social learning factors (determined through PCA), producing four datasets. For each model data quality assumptions were met, and the resultant findings from each MLR are illustrated below in Table 6.19.

Social learning - Modelling

Combined, the independent variables listed above statistically significantly predicted variation in respondents' "social learning – modelling" score, albeit somewhat weakly (Adj. R^2 = 0.15). Notably, the model for this DV was most significantly impacted by three variables: "estimated age" (β = -0.205, p < 0.005); "self-efficacy measure – difficult tasks" (β = 0.117, p < 0.05); and "downloads legitimate music" (β = 0.229, p < 0.005).

Social learning – Differential reinforcement

The second model tested the impacts of the independent variables on one's differential reinforcement score. In this case, the model had a statistically significant F ratio but was very week (Adj. $R^2 = 0.04$). Additionally, the significantly predictive variables were different than those for the modelling variable; namely, only the "trust measure – protective capacity" ($\beta = 0.106$, p < 0.05), and "gender" ($\beta = 0.141$, p < 0.005) were statistically significant predictors.

Social learning – Differential association

Using the same variables again, this third model looked to explain variations in participants' differential association score. As with above the predictive strength of this model was marginal (Adj. $R^2 = .02$) but statistically significant. It identified two strong predictive variables: "number of pirated songs" ($\beta = .100$, p < .05) and "Self-efficacy measure – simple tasks" ($\beta = .133$, p < .05).

Social learning – Definitions

The fourth model tested for the factors that predict participants' score for definitions. The model is statistically significant and slightly stronger than the two prior but is still relatively week (Adj. $R^2 = .05$). The MLR process identified two significant contributors to variation in this case; "Self-efficacy measure – simple tasks" ($\beta = -.148$, p < .05) and "downloads legitimate music" ($\beta = -.147$, p < .005). An interesting observation is that both relationships are negative.

Table 6.19: Hypothesis II multiple linear regression

		Modellin	g	Differen	tial Reinfo	orcement	Differe	ential Asso	ociation	D	efinition	S
	В	SE B	β	В	SE B	β	В	SE B	β	В	SE B	β
Intercept	.542	.621		850	.664		580	.657		033	.743	
estimated age	030	.006	205**	.002	.007	.017	011	.007	079	.000	.008	001
number of pirated songs	.000	.000	.077	.000	.000	.100*	.000	.000	.073	5.036E-5	.000	.017
Self-efficacy measure – difficult tasks	.131	.060	.117*	074	.064	066	013	.064	011	004	.072	003
Self-efficacy measure – simple tasks	.037	.054	.041	.120	.058	.133*	112	.058	124	152	.065	148*
Trust measure – protective capacity	.032	.046	.035	.026	.049	.029	.096	.048	.106*	014	.055	013
Gender	.075	.083	.044	.036	.089	.021	.238	.088	.141**	.168	.100	.087
self-rated computer expertise	.041	.075	.032	058	.081	046	.116	.080	.092	.005	.090	.003
downloads legitimate music	.432	.081	.229**	.019	.087	.010	.051	.086	.028	313	.097	147**
downloads pirated music	596	.492	051	.837	.526	.073	071	.520	006	.201	.589	.015
$Adj. R^2$.15			.02			.04			.05	
<i>F</i> (9,474)		10.74**			2.05*			2.92**			4.04**	

^{**} Correlation is significant at the 0.05 level (2-tailed).

^{*} Correlation is significant at the 0.005 level (2-tailed).

Hypothesis testing: Hypothesis III

Each sub-group morally disengages from the wrongfulness of music piracy in different ways

Pre-Test

The PCA test failed to reveal a simple structure of factors; as depicted below in table 6.20, factor analysis revealed overlapping component loadings.

Table 6.20: Moral Disengagement component loadings

	Component 1	Component 2	Component 3
Response to vignette seven	.849	.225	.167
Response to vignette six	.843	.236	.176
Response to vignette eight	.574	.562	.080
Music piracy isn't nearly as harmful as some of the	7.00	027	210
cybercrimes that exist	.568	037	.319
The music industry doesn't deserve to be protected	000	007	207
through law	.090	.807	.297
The music industry is getting what it deserves for	126	002	102
mistreating fans	.126	.802	.193
Response to vignette five	.472	.514	.050
People are expected to be aware of new music these days;	240	162	710
downloading music is one way to keep on top of things	.249	.162	.710
Downloading music is good because it shows artists that	1.00	200	(88
they have fans	.169	.299	.677
People were bootlegging music with casette tapes years	012	020	<00
before downloading got popular	.013	.029	.608
You can't blame a single person for downloading music if	202	225	
most people do it	.292	.237	.525
Pirating music is a way to sample music before you buy it	.506	.142	.517

Rather than using this approach, a research decision was made to use the standard meta-frameworks of moral disengagement developed by Bandura, Caprara, & Pastorelli (1996), and tested by Moore (2001). Thus four new variables were created by summing participant responses to the moral disengagement questions posed in the questionnaire.

Bivariate statistics

Correlation

A final correlation matrix was developed using the Pearson's product-moment bivariate method. For this test a smaller table was constructed that solely examined correlation between social learning categories and moral disengagement categories. Preliminary analyses showed that all potential relationships between independent and dependent variables were linear and reasonably aligned with normal distribution per a series of Shapiro-Wilks tests (p > 0.05). The results are tabled below (Table 6.21).

Table 6.21: Hypothesis III correlation matrix

		\mathbf{X}_{1}	X_2	X ₃	X_4	X ₅	X_6	X_7	X ₈
X_1	Mor. Dis.: Selective Disengagement	-							
X_2	Mor. Dis.: Obscuring personal agency	.574**	-						
X_3	Mor. Dis.: Misrepresenting injurious effects	.719**	.655**	-					
X_4	Mor. Dis.: Vilifying recipients	.536**	.553**	.568**	-				
X_5	Social learning: Modelling	.662**	.539**	.671**	.483**	-			
X_6	Social learning: Dif Assoc	.120**	.103*	.209**	.085*	.000	-		
X_7	Social learning: Dif Reinf	030	.009	063	005	.000	.000	-	
X_8	Social learning: Definitions	116**	209**	144**	288**	.000	.000	.000	-

^{*} p<.01

This process identified several interesting characteristics in the data set. Examining by dependent variable, several significant relationships are apparent: selective disengagement has a strong positive and statistically significant relationship with modelling (r = 0.662, p < 0.0005); a moderate positive relationship with differential association (r = 0.120, p < 0.0005), and a moderate negative relationship with definitions (r = -0.116, p < 0.0005). Obscuring personal agency has a strong positive relationship with modelling (r = 0.539, p < 0.0005); a moderate positive relationship with differential association (r = 0.103, p < 0.0005); and a moderate-strong negative relationship with social learning (r = -0.209, p < 0.0005). There is also a strong positive

^{*} *p*<.05

relationship between misrepresenting injurious effects and modelling (r = 0.671, p < 0.0005); a moderate-strong positive relationship with differential association (r = 0.209, p < 0.0005); and a moderate negative relationship with definitions (r = -0.144, p < 0.0005). Finally, vilifying recipients is strongly and positively related with modelling (r = 0.483, p < 0.0005); and a strong negative relationship with definitions (r = -0.288, p < 0.0005).

Multiple linear regression

A third and final series of MLR procedures were followed to determine the predictive strength of the models outlined above. An MLR was run for each of the moral disengagement factors using only the social learning tenets as independent variables. As with above all the assumptions of linearity, independence of errors, homoscedasticity, unusual points and normality of residuals were met. The results from these tests are depicted in Table 6.22 below. An ordered discussion by DV presents the simplest way to illustrate these findings.

Moral disengagement: Selective disengagement

The combination of the four social learning tenets significantly and strongly account for a large proportion of variation in the selective disengagement factor, F(4,588) = 128.67, p < 0.0005, adj. $R^2 = 0.46$. Moreover, three of the four variables add statistically significantly to the prediction (p < 0.0005) and only differential reinforcement did not have a significant impact ($\beta = -0.032$, p = 0.294).

Moral disengagement: Obscuring personal agency

The second model revealed similarly significant findings. Although somewhat weaker, the social learning tenets nonetheless statistically significantly and moderately-to-strongly predicted variance in obscuring personal agency, F (4,590) = 77.56, p < 0.0005, adj. R² = 0.34. Similar to the previous factor, three of the four tenets of social learning play statistically significant roles in

predicting the variation of this factor with the exception of differential reinforcement ($\beta = 0.009$, p = 0.788).

Moral disengagement: Misrepresenting injurious effects

The third MLR revealed the strongest predictive model of the group. Combined, the four tenets of social learning very strongly and statistically significantly account for variation in the third moral disengagement factor, F(4,587) = 157.21, p < 0.0005, adj. $R^2 = 0.51$. In this case, all four of the social learning tenets significantly contributed to the prediction, p < 0.05.

Moral disengagement: Vilifying recipients

Finally the fourth MLR produced the relatively weakest results when predicting variation in the dependent variable but nonetheless presented a significantly strong effect, F (4, 589) = 70.03, adj. R^2 = 0.32. As with the first two factors, three of the four tenets of social learning significantly contributed to the prediction, p < 0.05.

Table 6.22: Hypothesis III multiple linear regression

	В	SE B	β	В	SE B	β	В	SE B	β	В	SE B	β
Intercept	11.912	.077		8.619	.096		11.329	.072		7.970	.106	
Social learning: Modelling	1.691	.077	.662**	1.549	.096	.539**	1.686	.072	.670**	1.511	.106	.482**
Social learning: Dif Assoc	.304	.077	.119**	.296	.096	.103**	.531	.073	.209**	.266	.106	.085*
Social learning: Dif Reinf	081	.077	032	.026	.096	.009	151	.072	060*	015	.106	005
Social learning: Definitions	299	.077	117**	601	.096	209**	356	.072	141**	898	.106	287**
$Adj. R^2$.463			.340			.514			.318	
F (4, 588);(4, 590), (4, 587), (4, 589)		128.67**			77.56**			157.22**			70.03**	

^{**} Correlation is significant at the 0.05 level (2-tailed).

^{*} Correlation is significant at the 0.005 level (2-tailed).

Findings

Hypothesis I

The first hypothesis sought to identify the predictors of differentiated online behaviours based on individual characteristics. Theoretically, a netizen with higher technological competence would be more capable of navigating to deeper parts of the World Wide Web. By extension, this would be signified by a greater awareness of possible risk online and a greater level of activity on more skill-dependent websites. This approach was tested by establishing dependent variables for self-efficacy, online trust, and web-usage characteristics.

The PCA procedure described above isolated three discrete groups for the ACES measure and four discrete groups for the APCS which acted as dependent variables. These factors were tested for correlation with several independent variables that reflected personal internet-use characteristics. Analysis confirmed a set of independent variables which have been shown to significantly correlate with changes in the dependent measures listed above. These independent variables include: "estimated age," the respondent's calculated age on Jan. 1 2015; "years of Internet use," the length of time that respondents have had regular access to the Internet; "self-efficacy measure – difficult tasks," a factor score related to individuals' self-perceived capacity with challenging IT related tasks; "self-rated computer expertise," a direct measure of respondent's self-confidence of their computer abilities; and "gender." These findings led to several decisions about analysis that would shape the remainder of the empirical testing.

First, the ACES principle components of "self-efficacy measure – simple tasks" and "self-efficacy measure – moderate tasks" were dropped as independent variables for further analysis. The rationale is twofold; first, these variables had very few significant relationships with the dependent variables, most of which were in the weak-moderate range; and second, given the thrust of research for hypothesis one, their values were likely eclipsed by the third measure

"self-efficacy measure – difficult tasks." It seems likely that a respondent with high measures of self-efficacy for difficult tasks would feel equally effective with simple and moderate tasks. Additionally, the lack of strong and significant relationships for three of the four trust measure components were used as cause for their elimination from ongoing analysis as dependent variables in the context of hypothesis one. Finally, "weighted social media score" was also removed from analysis for similar reasons. In this case the relative lack of relationships might be explained inadequate measures; as noted above, 98 percent of respondents report being active on social media website, and this level of engagement may confound potential relationships.

These actions left two remaining dependent variables: "trust measure – protective capacity" and "weighted aggregate site score." As explored above, both are significantly related to several independent variables. By the same process a list of four continuous independent variables was retained: "estimated age;" "years of Internet use;" "self-rated computer expertise;" and "self-efficacy measure – difficult tasks." Completion of the ANOVA procedures outlined above contributed toward several additional analysis decisions.

First, the tests confirmed that neither college of education nor years of post-secondary education have a significant effect on respondent's self-perceived capacity to protect themselves online nor on the total number of news aggregate websites that they visit. Although past research has identified these variables as predictors of online behaviours, the relationships were rather weak (Hinduja, 2006, p. 109). Subsequently, these variables were dropped from the linear regression model. Second, the ANOVA tests did highlight the veracity of gender and self-rated computer expertise as contributors to change in one's "trust measure – protective capacity" and "weighted aggregate site" scores. This relationship was particularly strong for predicting changes in the trust measure, however they also show a potential net increase to the predictive strength of

linear regression models for both dependent variables. As such, this procedure confirmed the inclusion of these two variables.

In summary, the bivariate and ANOVA analysis portion of this study identified several key relationships which were further explored using a linear regression model. This includes the identification of two independent variables which can be considered indicators understanding how individuals of differing backgrounds experience the Internet different ways. These dependent variables include "trust measure – protective capacity" which is a factor score related to individuals' self-perceived capacity to protect their digital security while participating online; the second dependent variable is "weighted aggregate site score," which is a weighted measure of the number of news aggregate websites that individuals use.

Two MLR models were constructed that made use of the significantly correlated variables listed above. The first model sought to identify the cumulative impact of age, gender, self-efficacy rating, technical ability, and technical experience to impact the likelihood of predicting respondents' self-perceived capacity to alleviate web-borne threats to their information security. As depicted in Table 6.14, this presented a relatively strong model that explains approximately 30% of the variation in the dependent variable ($R^2 = 0.29$). The significant predictors in this group include age, self-efficacy, and self-rated computer expertise. The second model used the independent variables listed above and included respondents' trust measure as a sixth independent variable to test for variation in respondents' complexity of web usage, indicated by the level of participation in aggregate/specialized websites. In this case the model, although statistically significant, accounted for only 10 percent of variance in the dependent variable ($R^2 = 0.10$).

In summary, the findings detailed above appear to show that personal characteristics play a major role in determining an individuals' self-confidence as it relates to protecting oneself online. This aligns with one of the primary assumptions detailed by Castells with regard to the network society in that technologically savvy individuals will take action to manipulate or shape their online experiences. On the other hand, the second model provides less clarity as to what factors impact the specific actions of individuals' online vis-à-vis their web-browsing preferences. This concern may be tempered by the statistically significant and strong beta weight for the online trust measure against participation in aggregate/specialized website which accounts for 16 percent of the variation alone.

Hypothesis II

The second hypothesis was designed to consider how individuals of varying online experiences might differentially respond to the four tenets of social learning theory (differential association, differential reinforcement, definitions, and modelling). This hypothesis is structured upon the hypothesis one which illustrate the idea that one's level of technical capacity does influence the online experience; thus, this second hypothesis extrapolates that netizens may be more favorable or more exposed to certain tenets based on their differentiated online experiences. Given the assumption that a plurality of experiences shapes the dependent variable, it warranted a multi-faceted model of investigation. Specifically, the factors influencing each tenet were investigated separately using the methods described above.

As with before, hypothesis testing commenced with a PCA procedures for data reduction purposes. This round of tests identified strong factor loadings which align with each of the tenets of social learning. As a point of interest, these findings provide statistically significant evidence that the associated survey measures were effective in isolating preferences for each of the tenets

of social learning. One limitation to consider in this process is that the Varimax orthogonal rotation establishes independent of factors, whereas there might be some interoperability between the tenets of social learning (Akers, 2010). Despite this drawback, the associated scores were high enough to warrant the creation of factors. Overall, these findings provided a strong foundation for additional statistical investigation.

Bivariate analysis (including Pearson's *r* and ANOVA) was once again used for data management purposes. These tests indicated statistically significant relationships between each of the social learning factors and several independent variables, including "estimated age;" "number of pirated songs;" "self-efficacy measure – difficult tasks;" "self-efficacy measure – simple tasks;" and "trust measure – protective capacity;" "gender;" "self-rated computer expertise;" "downloads pirated music;" and "downloads legitimate music." These variables were retained for testing as possible predictors for variance in linear regression models.

It should also be noted that qualitative observation of the results provides some confirmation that each of the tenets of the social learning theory can be predicted using different variables. Namely, individuals with higher scores for modelling behaviours are influenced by age (negatively), self-rated efficacy with difficult computer tasks, and downloading music from legitimate sources. Differential reinforcement scores are influenced by gender and self-rated level of skill with computers. Differential association is influenced by one's level of engagement in piracy (indicated by number of songs downloaded), and self-reported efficacy with simple computer tasks. Finally, accrual of definitions is negatively correlated with one's self-rated efficacy with simple computer tasks, as well as downloading music from legitimate sources. Given this finding, it was deemed worthwhile to conduct statistical analyses to further explore how each of the predictive models varies.

The MLR results for hypothesis II presented above are illustrative of discrete influential factors for each of the tenets of social learning theory. Namely, individuals with higher scores for modelling behaviours are influenced by age (negatively), self-rated efficacy with difficult computer tasks, and downloading music from legitimate sources. Differential reinforcement scores are influenced by gender and self-rated level of skill with computers. Differential association is influenced by one's level of engagement in piracy (indicated by number of songs downloaded), and self-reported efficacy with simple computer tasks. Finally, accrual of definitions is negatively correlated with one's self-rated efficacy with simple computer tasks, as well as downloading music from legitimate sources.

Hypothesis III

The final hypothesis presupposed differentiated responses to social learning of music piracy based on individual characteristics and self-rated capacity/trust. Given this assumption, it was then hypothesized that the discrete characteristics of the groups presented above would be reflected in differentiated responses to the mechanisms of moral disengagement. Therefore the intent of this section is to illustrate how one's score in the four meta-frameworks of moral disengagement might be correlated with their responses to social learning measures.

A PCA procedure using similar methods to those outlined above was attempted for the twelve measures of moral disengagement. Unlike above, the procedure was ineffective for isolating discrete groupings of variables that carried any semblance to the measure's design. At this point it was decided that the measures would be combined into new variables reflective of the meta-frameworks developed by Bandura, Caprara, & Pastorelli (1996), and tested by Moore (2001). Thus four new variables were computed to reflect selective disengagement, obscuring

personal agency, misrepresenting injurious effects, and vilifying recipients; the survey questions related to each category were identified in Chapter 5, above.

Data analysis for this hypothesis was somewhat simple given the limited range of variables to be used. Bivariate analysis using Pearson's r revealed significant, and strong relationships throughout the correlation matrix. The high preponderance of moderate-strong relationships suggests that social learning scores are a likely predictor for moral disengagement scores; however, it appears that they do not independently predict the meta-frameworks of moral disengagement. This finding was further tested using multiple linear regression, as detailed above.

The MLR tests outlined above, in conjunction with the Pearson's product-moment correlation matrix present the significance of social learning as a predictive factor for one's cognitive dissonance from criminalized online behaviours through cognitive dissonance. Unlike the prediction, these models illustrated a repeated pattern wherein three of the four tenets of social learning played relatively similar roles in accounting for variation in each of the factors of moral disengagement. This might be in part because of the high-level of correlation between the moral disengagement factors, illustrated in the correlation matrix (Table 6.21, above).

Regardless, these findings do illustrate that individuals with greater preponderance toward social learning are more likely to make use of these techniques for neutralizing their behaviours.

It should be noted here that the persistent occurrence of negative relationships between the moral disengagement factors and definitions is likely related to the survey design rather than a negative relationship. The variables that make up the Definitions factor are worded in a way that asks for responses to potential labels for piracy-related actions, and lower scores mean less agreement with label (vs. less agreement with the principle). Thus, the negative relationship

should be construed as people who are more engaged in moral disengagement are more likely to reject definitions associated with their behaviours.

CHAPTER 7 DISCUSSION

Results Summary

The preceding research attempted to highlight the implications of an increasingly pluralistic worldwide web as it pertains to individuals' persistence in micro transgressions against copyright holders by testing three discrete hypotheses. Significant relationships were noted for each hypothesis; however, none were fully confirmed in their original form, nor could any be fully rejected. Despite these partially supportive findings, the results nonetheless warrant discussion as they relate to questions of both theory and behaviour. The following chapter will unpack the importance of these findings in a hypothesis-by-hypothesis manner.

Discussion: Hypothesis I

Individuals with different technical capacities experience and trust the Internet in different ways.

This first hypothesis sought to test Castells' theory of communication power in relation to his assumption that segmented and customized nature of mass media, particularly the Internet, plays a role in affecting online experiences. The assumption behind this hypothesis was that a series of defining characteristics, particularly self-efficacy ratings with computers, would be predictive of differing levels of trust for the online world, and the nature and 'depth' of Internet use reported by participants. A host of previous criminological studies identified the role of certain demographics in anticipating differing levels of online deviance, inclusive of gender, age, access to technology, and experience with technology (e.g. Popham, 2011; Hinduja, 2006; Higgins & Marcum, 2011, etc.). Furthermore, many studies in the field of education have illustrated the significant determining effect of technical savviness, and moreover self-perceived savviness, in predicting an individuals' behaviours online (e.g. Eynon and Malmberg, 2011; Staksrud & Livingstone, 2009; Davies & Eynon, 2013, etc.).

Testing this hypothesis entailed the creation testing of several novel indices including measures of self-efficacy with technology, trust for Internet-connected environs, depth of social media engagement, and depth of aggregate website engagement. In addition the afore-mentioned demographic variables were included as independent variables. The first test of hypothesis one was confirmed. That is, a model was developed that significantly contributed to prediction of one's perception of their own ability to mitigate violations of their trust online. On the other hand, the second test of hypothesis one should be rejected. Namely, although a statistically significant model was created to determine differences in individuals' use of aggregate-style websites, it was relatively weak and only accounted for a small percent of variation in the dependent variable.

The findings discussed above present several points of interest worth discussing, and also raise potential questions. First, it should be noted that the elimination of several factors from analysis should not be considered a failure of measures but rather a case of redundancy in the nature of use. For instance, the simple and intermediate measures of technological self-capacity were omitted from study after it was found that there were no strong correlations (despite several statistically significant relationships). Rather, as is noted in chapter six, each of the measures operated along an independent continuum and therefore it seems logical to assume that an individual who ranked highly in difficult measures would also rank highly in simple and intermediate ones. Further, it seems likely that the average scores would be higher for the first two categories given their lack of complexity and that respondents reported an average of 14.6 years of Internet use (as well as a significant amount of post-secondary education, whose modern nature requires a certain level of technical competency by default). Therefore it seems altogether

likely that one measure based on the most complex tasks can articulate the spectrum of computer self-efficacy.

The elimination of several factors related to online trust seems less straightforward at first glance, but again further consideration clarifies a subtle logic to this process. The three factors that were eliminated (measures of threats to privacy, fear of data misuse, and risk of identify theft) can largely be related to discrete knowledge of risk whereas the retained measure (capacity to mitigate risks) is procedural in nature. Given recent international events such as public awareness of the National Security Agency's mass collection of data or widespread news coverage of changes to online privacy protection through agreements like the Trans Pacific Partnership, it seems reasonable to assume that a majority of web-connected tech-savvy individuals would be more or less universally aware of these risks as they relate to the person on some level (Poe, 2011; Green, 2007). On the other hand, active mitigation of these risks through advanced technologies and services such as virtual private networks (VPNs), web proxies, or a Tor project requires a higher level of knowledge and time commitment which may be beyond the average user (Project Tor, 2015). If this is the case then the measure of one's capacity to protect or cover their online behaviours proves to be a viable measure for online trust as it requires greater commitment than the other measures.

A more substantive question raised by the findings is role of social and technological determinants as they relate to the networked society and the new means of learning about deviance therein. Castells predicted that the horizontal networks of interactive communication present in the modern connected world would play significant roles in identity development, directing individuals toward deviance or conformity, enhanced in part by differential access to various aspects of the worldwide web (e.g. via "interconnected nodes) (Castells, 1996, p. 470). In

his later inferences, Castells also explained that these interactions would contribute to the dissolution of traditional, state-sponsored ideals in favour of communally developed resistance identities stemming from the actions of "programmers" (Castells, 2009, p. 418). More specifically, Castells' asserted that "if power is exercised by programming and switching networks, counter-power, the deliberate attempt to change power relationships, is enacted by reprogramming networks around alternative interests and values, and/or disrupting the dominant switches while switching networks of resistance and social change." In other words, he suggested that the agent would take an active role in shaping or changing their surrounding knowledge environs by prejudicially adapting their information sources to align with their reflexive resistance identity.

However, this idea was confounded by the results presented above as I could find no substantive link between personal demographics and technological skills with the breadth/depth of website usage. Moreover, I was also unable to find any linkage between music piracy (representative of microdeviations against predominant ideals) and the nature of one's online experiences. This seems to indicate that the more tech-savvy participants, those who by Castells' measure are more likely to encounter trenches of resistance, are not redefining their sources of information to align with new values.

Despite these statements I cannot discredit Castells' theory, but rather must place our findings within the context of a continuum of change. As discussed by Castells, transformation into a communication revolution depends upon the confluence of technological transformation (digitization of the populace); an institutional restructuring of communications (privatization of the Internet); a multilayered, dialectical shift in culture of communications (a simultaneous rise of individuality and communality); and a discrete expression of the power relationships in

communication (clear and intentional curtailment of activities)(Castells, 2009, p. 56-57).

Although the first three conditions discussed above have been met, the last seems, at best, vaguely realized. This can be related finding the strong capacity of personal characteristics and technological self-efficacy to predict changes in one's self-rated capacity for preventative measures against web-borne threats. Therefore this finding may be indicative of a subset of netizens espoused with great technical capacity but who have not yet been catalyzed into action.

This point can be further elucidated by revisiting our earlier discussion of cyber deviance within the context of panopticisim. As explored, Foucault's (1995) history centred on the "marvelous transformation" of punishment from state hubris to austere institutions. While some parallels in this transformation are present in current iterations of the Internet, it was argued that online communities and services had not yet realized a panoptic state and rather mirrored the agrarian principles with which Foucault had commenced his discourse. This is evident in litigation practices akin to supplice; spectacles of the scaffold through pirate-martyrs; and a lack of generalized punishment (or awareness thereof). As such, the seeming knowledge of participants but lack of behaviour modification expressed in the relationship explored above indicates that tech-savvy individuals had cause to establish Castells' hypothesized trenches of resistance – yet.

Discussion: Hypothesis II

The indicators of social learning vary across online experiences.

This second hypothesis sought to align the findings, if any, from the first hypothesis with the principle tenets of social learning described by Ronald Akers (2008), including differential association, differential reinforcement, development of supportive definitions, and modelling deviant behaviour. Namely, it asked if one's personal characteristics, technical skills, or online behaviours might channel them toward one or another of these categories. This perspective

emerged from several foundational studies in the field of cyberdeviance which have illustrated statistically significant linkages between deviant actions and supportive peer networks (e.g. Morris & Higgins, 2009; Hinduja, 2006; Bhattacharjee et al., 2003; Rogers, 2001; etc.); however with the exception of Hinduja (2006), there has been substantially less effort to illustrate differentiation in the indicators of social learning based on personal characteristics amongst online music pirates.

The intended purpose of this hypothesis was to act as an intermediary linkage between the networked society and moral disengagement (Hypothesis III); therefore, the relationships identified while testing hypothesis I were re-used in combination with several new characteristics relating to online behaviours. Four iterations of linear regression tests were then used to test the predictive effect of the model on each of the tenets of social learning. The test findings produced mixed results in terms of confirming the hypothesis – that is to say, statistically significant conclusions were encountered, but they were of low to moderate strength. Nonetheless, these findings illustrated differences amongst the factors that predict one's preponderance to any of the four tenets of social learning.

Several important points of discussion are raised by these findings. First, the categorizations established through the use of principle component analysis identify a notable trend in that online and offline supportive groups were not differentiated by participants. This challenges the presumption made early on that reinforcement by proxy, supported through the emergence of mass self-communication, could be considered as a discrete and alternative group to in-person peers. While past research using pre-web 2.0 or older materials had already confirmed this finding (e.g. Miller & Morris, 2014; Ingram & Hinduja, 2009), it was

hypothesized that cutting-edge movements in the digital world may have elevated the impact of digital peers in some circles. This presupposition, however, appears disproven.

On the other hand, these findings do not disown the discussion that significant others through proxy may play an equally strong role in shaping one's behaviour. In fact, the contrasting topologies of each social learning category, aligning with earlier findings presented by Hinduja (2006), indicate that those who have the greatest exposure to online peers are shaped differently than those with lowered exposure. That is to say, the tests conducted above definitively identified discrete predictive variables amongst the dependent variables, with little comparability amongst the groups. Moreover, qualitative assessment of the findings seems to illustrate differentiation along the lines of overall technical capacity – for instance, modellers were more likely to be competent with computers; while comparatively, those who developed supportive definitions to music piracy were more likely to rank themselves highly on simple computer tasks. As was related earlier, this aligns with the notion that strong networks of communication may serve as an emic by proxy that supports displacement of the etic and ultimately shapes the "program decisions" of the node. It stands to reason, then, that those with the greatest chance of exposure to novel ideas by technical means will be more likely to act in different ways. This is further supported by the depicted categorization; modellers are apt to recreate novel experiences.

Speaking on the effectiveness of social learning theory itself, the results are mixed. As noted above no single "strong" relationship was identified amongst the tests related to the hypothesis. One issue herein may be with the procedures that were implemented: The assumption of factor analysis using orthogonal rotation is that resulting categorizations will be exclusive; however, as discussed by Akers (2008), there is some hypothesized overlap between

the categories. On the other hand this may also be indicative of a failure of the subject matter (music piracy) to play a significant role in the formation of deviant identities. Discussed at the outset of this manuscript, the nature and seriousness of music piracy may have already peaked and now be receding as a deviant construction. As predicated by Lessig (2008), the inculcation of portability, customizability, and interconnectivity of popular culture in the modern world has normalized an expectation of instant gratification at low cost. Coupled with the integration of music identities into the North American youth's social habitus (Daschuk & Popham, 2013), it may be that the once highly contested MP3-format has simply become a given amongst today's consumers. The research outlined above provided significant evidence of the extent to which digital music has been enculturated: Ninety-seven percent of respondents indicated that they use digital music files, and 85 percent of those who do reported using pirated music files.

This evidence clashes with one of the foundational statements of social learning theory, namely that "[deviant] behavior is a function of norms which are discriminative for criminal behavior, the learning of which takes place when such behavior is more highly reinforced than noncriminal behavior" (Akers, 2009:45). If music piracy has been normalized to the extent that the general public no longer views it as a criminalized action (legal precedents notwithstanding), then it seems unlikely respondents would associate reinforcement of this behaviour with wrongfulness.

Discussion: Hypothesis III

Each sub-group morally disengages from the wrongfulness of music piracy in different ways

Finally, the third hypothesis was foundational upon differentiation between the tenets of social learning theory and posited that these differences would lead to variation in the type of moral disengagement strategies used by participants. In a general sense, this hypothesis asked if participants would be more likely to use one of four meta-frameworks of neutralization that had

been outlined by Bandurra et al. (1995). Neutralization as a practice has long been associated with the various iterations of social learning theory and the logic here was that the previously tenets would serve as "sorting bins" for the meta-frameworks (Rogers, 2001). A downloading-based set of measures for moral disengagement was used with some success by Rogers (2001) for his dissertation, and an adapted version that takes into consideration his findings was used to test this hypothesis. This hypothesis presented the least complicated set of tests in the study as it only required analysis comparing aggregated scores in social learning indices to aggregated scores in moral disengagement indices, yet produced surprising findings: Namely, these tests failed to reject the null hypothesis.

Empirical jargon aside, the results from this test illustrated a statistically significant and strong-to-very strong pattern of prediction for one's engagement in processes of moral disengagement. As is outlined above, three of the four tenets of social learning were shown to have a significant predictive impact on the research samples' favour toward each of the given meta-frameworks of moral disengagement overall; however, no significant variation was observed in the predictive models for each of these frameworks. That is to say, one's "type" of social learning does not determine which strategy of neutralization they engage in, but rather identifies the likelihood that they will engage in these strategies in a general sense. This finding presents a significant departure from existing research about moral disengagement – for instance, Bandura (1999) expressed a set of unique predictors for not only each of the meta-frameworks discussed above but also many of the specific mechanisms present within these frameworks. Similarly, Ingram and Hinduja's (2009) study on techniques of neutralization illustrated preponderance amongst digital pirates toward specific elements of the theory rather than as a whole. This patterning differs from the observations above.

One potential answer is present in Morris and Higgins' (2008) study of neutralization specific to online music piracy. Their work, much like the current study, made use of an adjusted techniques of neutralization index that accounted for the online nature of these transgressions. In conducting their pre-tests they also made use of principle component analysis and attempted to apply this procedure to the neutralization index and found that a singular construct represented the multiple techniques, thus indicating significant correlation amongst individual neutralization components (Higgins and Morris, 2008, p. 182). Again, this parallels the findings expressed above whereby the pre-tests for the current study were unable to develop an effective set of factors for moral disengagement.

This lack of differentiation can also be related to some Bandura's later work where he more clearly articulated the notion of "selective application" (Bandura, 1999). Bandura (1999) explained that individuals engaging in actions that violate their moral standards may neutralize their actions through a self-reactive process, equating to picking and choosing a given insular response based on its alignment with their moral standards in a reflexive manner conditional upon the time, space, and nature of the action. Thus cast as a dynamic process, the incongruences discussed above may point to an issue of measurement rather than contradictory findings. The questions posed to the sample were static indicators of each of the meta-frameworks of moral disengagement, asking them to rank their level of agreement with a statement. Were the questions to be re-phrased using a multiple choice options, we may find that future studies provide a clearer indicator of framework-specific indicators.

One final discussion is the interconnection of the indicators of moral disengagement with social learning and ultimately the networked society. Specifically, the observations from this final set of tests did provide confirmation of a clear correlation between social learning and

insular responses, particularly by individuals with higher-rated modelling scores. Connecting this finding to the earlier discussion of groupwise predictors of the tenets of social learning theory, we can see that the discrete factors relating to higher modelling scores included youth, technical competence and a likelihood to disengage from legitimate means of downloading digital music files. This rough outline tends to align with the profile of active Internet users developed by Carr (2010), Poe (2011), and Ward and Gryczynski (2008) discussed in Chapter 3. As examined by Castells (2009) this highly motivated group is most likely to be a "switcher" in their network, influencing the knowledge frameworks within their communities and developing an "autonomous ability to reprogramme one's own personality ... replacing the strengthening of a set personality, embedded in established values" (p. 21). These switchers are heavily influenced by local network indicators, particularly those who they relate to as significant others. Furthermore, Akers (2009) contested that a significant proportion of modelling (or imitation) behaviours are influenced in a symbolic manner through forms of media thus supporting the possibility of reinforcement through proxy. Given this postulation plus the findings listed above, we can deduce at least partial confirmation of the general hypothesis for this project: The more active members of networked societies appear to be more likely to engage in modelling behaviours, and modelling behaviours are likely to predict the use of moral disengagement to neutralize acts of deviance.

CHAPTER 8 CONCLUSION

Introduction

This project has attempted to draw attention to the influencing effect of the Internet on individual's attitudes toward deviant definitions of music piracy. Piracy of digitized music files remains a prescient issue fifteen years after Napster introduced simplified means for accessing and trading popular music without the need to pay – illustrated by high rates of engagement in piracy. The resulting fallout from this paradigmatic shift in music usage included a series of litigious campaigns and inevitably legislation with prescribed punishments for transgressors.

Simultaneous with these changes, new dimensions of worldwide communication have opened up new experiences to an entire generation of tech-savvy individuals. Whereas prior to the Internet's popularization the skills required to track down and locate pirated or bootlegged music required specialized skills, or at the very least dogged determination, the requisite knowledge and moreover access is now readily available with a few keystrokes. This sea change contributed to the first hypothesis of this study, that *individuals with different technical capacities experience and trust the Internet in different ways*, which references Manuel Castells' (1997) philosophy of a networked society. This study has established that differential experiences are reported by those who consider themselves more technically competent, particularly when it comes to mitigating potential risks to their online security. Moreover, the evidence suggests that technical self-efficacy scales with age. Therefore it is not a stretch of the imagination that as generations with lifelong exposure to digital technologies come of age there will be higher levels of technological exploration, and potentially, exposure to "deeper" elements of the worldwide web that are supportive of non-conformist identities.

One means by which these changes in technical capacity may influence the individual's perspectives is through differential influences by peers. This theory was tested with the second hypothesis, which presumed that *the indicators of social learning vary across online experiences*. Although this study did not find strong evidence to suggest that individuals may be more impacted by "virtual" friends, it did confirm that said friends have at least an equal effect. More importantly, it demonstrated that technical ability and age play a role in determining one's propensity toward the various characteristics of social learning. Substantially, it demonstrated that those who were most likely to agree with modelling others' behaviours were most likely to be younger, technically competent, and to desist from legitimate means of accessing music. Connecting this with the information above, it seems reasonable to conclude that this group leverages its competencies with the Internet to learn and ultimately reproduce the techniques of music piracy.

Although the two findings outlined above account for exposure to differential understandings of crime they do not provide much insight into how individuals navigate the gaps between state-enforced socio-legal perspectives and their own courses of action. The third hypothesis, that each sub-group morally disengages from the harms associated with music piracy in different ways, attempted to address this by testing for moral disengagement – the processes by which individuals account for the actions through selective deactivation of naturalized moralities. While the study could not establish that individuals will engage in different neutralization behaviours based on their personal characteristics, it nonetheless did illustrate that those who are more prone to modelling behaviours have the greatest propensity toward moral disengagement. Drawing on the knowledge expressed above, then, a final reasonable conclusion here is that younger, more tech-savvy individuals who are less likely to

download legitimate music are the most likely to selectively deactivate their moral inhibitions when it comes to engaging in microdeviations alike to music piracy.

Contributions

The investigations outlined above include several key contributions to the criminological study of online behaviours. From a theoretical standpoint, it provides an integrated approach that incorporates leading criminological theories to present a nuanced perspective on cyber deviance reflective of the modern, pluralistic World Wide Web. In essence it illustrates that comprehensive approaches to communicating – and enforcing – copyright-holders' concerns are ineffective. Rather, it suggests that future tactics for developing civil responses to music piracy should focus on individualized communicative discourse that reflects the pluralistic nature of a networked society, with different ideals present amongst differentiated user-types.

Moreover, the near-ubiquity of music piracy amongst the participating sample paired with the high preponderance of moral disengagement suggests that the music industry should develop adaptive rather than antagonistic approaches to combatting this phenomenon. As I have argued in a previous study (Daschuk & Popham, 2013), popular music is much more than a simple, consumable good; rather, it manifests as a cultural icon representative of individual tastes. To this end music-consumers will pursue access to these icons regardless of financial means. This again is illustrated in the findings presented above wherein netizens of differing skills and online experiences nonetheless migrate toward music piracy, albeit by different means. Future studies of music piracy would do well to pursue consensus amongst all stakeholders in the industry (inclusive of consumers) regarding appropriate discourse and forms of access.

From a practical standpoint the unanimity of music piracy also has implications for future statistical measures and/or investigative approaches. Demonstrated in the research results above,

at least 85 percent of the respondents in this sample confirmed that their digital music collection is comprised, at least in part, by songs that were downloaded without the permission of copyright holders. This finding indicates that possession of these illegitimate files is not a feasible dependent or discerning variable. I am equally wary of using the size of these collections as an indicator, as it raises the question "where does music piracy begin?" Future studies should consider alternative measures or indicators.

This study also presents strong evidence for the validity of several measures related to various theories. For instance, the combination of the ACES and ACPS tools to identify categorical differences between users was very successful, emphasized by the strong factor loadings presented in the principal component analysis. Similarly, this study was able to replicate the findings presented by Hinduja (2006), indicating that measures of social learning adapted for music piracy are effective. This success was also carried forward, to a lesser extent, when testing adapted meta-frameworks for moral disengagement grounded in Bandura, Caprara, & Pastorelli's (1996) design. Generally speaking, these successful tests suggest that future empirical research can be used to describe macro structures in online behaviours and pathways.

Limitations

As with any major study there are several limitations of note to this project. First, as has been explored above, we have encountered some shortcomings with the instruments of measure. Some were mitigated through effective data-cleaning processes; however, in other cases there were structured shortfalls that could not be overcome. For example, future research on this topic would benefit from developing more reflexive indicators of the tenets of social learning and the meta-frameworks of moral disengagement as it relates to music piracy (or a similarly contested online deviancy). Researchers might consider developing reflective questions that bracket

personal opinions or moralities and focus on reactive responsivity instead. Another approach worth consideration is the inclusion of qualitative data collection – whilst this may impact the efficiency of data analysis, it will provide a deeper contextual understanding of respondents' interpretation of a given setting.

Second, the nature of the sample may project some limitation. Whilst past research confirmed the applicability of convenience samples to serve as proxy for the general population, there nonetheless remains the question of representativeness. The participants encountered in this sample were generally much younger than the Canadian population, more highly educated, and less geographically dispersed than the citizens of Canada. In addition, Gender was unbalanced, and information about race, ethnicity, and social background were not collected. There have been mixed results amongst past studies that considered more robust socio-demographic factors as they related to music piracy. More importantly, there may be a selection bias present in this study for several reasons. First, responses were incentivized with entry into a draw for a prize in the form of an electronic device or equivalent value in gift cards. Therefore it stands to reason that people uninterested in this incentive may have elected not to participate. Second, the electronic survey format was primarily communicated through electronic means, potentially leading to omitting participants who do not use these technologies or who were not accessing them during the data collection period. And third, the somewhat legally sensitive nature of the topic may have dissuaded participants. All though every effort was made to express the unlikeliness of any legal repercussions, it may have prevented some individuals, particularly those engaged in the dark web, from engaging. These sampling limitations were mitigated to some extent by the use of a relatively large sample, which had a 95% confidence interval of [+/- 3.92%]; however, future

research might benefit a purposive sampling strategy for potentially underrepresented populations.

Finally, as with any meta-narrative, testing for direct connections between the concepts posited by Castells and other network society theorists remains a fickle challenge. The nature of communication power is that it presents itself in fits and starts rather than a continuous manner, aligning with the fragmented and plural nature of the modern worldwide web. The research presented above attempted to connect anticipated predictors for some elements related to this theoretical underpinning to provide an indicator of one's likeliness of taking a more active role in an object-oriented domain. Efforts like this are inevitably an imperfect science, particularly if they attempt to answer grand questions in one go. I have not done this but rather focussed on developing knowledge for a small sliver of Castells' framework. Future researchers would do well to further Castells' understanding that his work will be superseded by piecemeal. Novel and alternative measures of communication power should be sought that will clarify the findings described above.

Summary

Although in some cases the findings of this study did not conclusively align with the hypothesized relationships, I believe that the results nonetheless identify an integrated approach toward understanding the mechanics of online behaviour. That is to say, the preponderance of netizens toward defining online spaces that align with personal opinions provide the experiences necessary to catalyze microdeviations such as music piracy. I have demonstrated that individuals of different technical capacities approach the internet in different ways; that the indicators of these differences also align with preferences for different forms of social learning; and that those preferences significantly impact one's likelihood and manner of neutralizing the harms

associated with deviance. While the universality of music piracy may appear mundane from a top-down perspective, this integrated theory presents a nuanced understanding of the phenomenon that belies a multiplicity of pathways and discredits grand narratives.

The Internet has become a ubiquitous technology in modern western societies. If any single lesson is to be taken from the research discussed above it is this: research into the social sciences must address the Internet and the interactions therein as a fractured, differentiated plurality rather than a homogenous identity. In many cases the online persona is taking up a greater and greater portion of the individual's identity, and the multiple interactions that a single user might encounter online will inevitably impact their behaviours both online and offline. This impact is clearly expressed through consideration of digital music piracy, which despite decades of opposition, persists uniformly.

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Appendix A: Durndell & Haag's (2002) measures of computer self-efficacy

I feel confident:

- 1. working on a personal computer (microcomputer)
- 2. getting software up and running
- 3. using the user's guide when help is needed
- 4. entering and saving data (numbers or words) into a file
- 5. escaping (exiting) from the programme (software)
- 6. calling up a data file to view on the monitor screen
- understanding terms/words relating to computer hardware
- 8. handling a floppy disc correctly
- 9. learning to use a variety of programmes (software)
- learning advanced skills within a specific programme (software)
- 11. making selections from an onscreen menu
- 12. using the computer to analyse number data
- 13. using a printer to make a 'hard copy' of my work
- 14. copying a disc
- 15. copying an individual file

- 16. adding and deleting information from a data file
- 17. moving the cursor around the monitor screen
- 18. writing simple programmes for the computer
- 19. using the computer to write a letter or essay
- describing the function of computer hardware (e.g. keyboard, monitor, disc drives, computer processing unit)
- 21. understanding the 3 stages of data processing: input, processing, output
- 22. getting help for problems in the computer system
- 23. storing software correctly
- 24. explaining why a programme (software) will or will not run on a given computer
- 25. using the computer to organise information
- 26. getting rid of files when they are no longer needed
- 27. organising and managing files
- 28. troubleshooting computer problems

Appendix B: Lwin and Williams' (2003) measures of online trust

- By providing false personal information, I would receive less junk mail
- By providing false personal information, I am able to protect my personal privacy
- 3. By providing false personal information, I feel secure
- 4. When providing false information, I have complete control
- 5. Providing false information is easy
- Website features make it difficult for me to provide false information
- The act of providing false information online is not ethical
- 8. The act of providing false information does not go against my moral value
- 9. There is nothing wrong in providing false information
- 10. In the future, I intend to provide false information to Websites
- 11. In the future, I will not give up my true identity

- 12. It is very important that my best friend approves of my falsifying personal information
- When giving personal information is concerned, I usually do what my best friend is doing
- 14. It is very important that my friends approve of me falsifying personal information
- When giving personal information is concerned, I usually do what my friends are doing
- 16. It is very important that my parents approve of me falsifying personal information
- 17. When giving personal information is concerned, usually do what my parents are doing
- 18. It is very important that other people (except my family and friends) approve of me falsifying personal information
- 19. When giving personal information is concerned, I usually do what other people (except my family and friends) are doing

Appendix C: Hinduja's (2006) measures of social learning theory (music piracy)

- I. Differential Association
 - 1. My friends support my MP3 usage
 - 2. I associate with others in real life (offline) who are supportive of MP3 usage
 - 3. I was introduced by another person in real life to MP3s
 - 4. I have learned the techniques of using MP3s from my friends

II. Imitation/Modeling

- 1. I have learned the techniques of using MP3s from television or print media
- I have learned the techniques of using MP3s from online sources (web pages, chat rooms)
- 3. I associate with others online who exchange MP3s with me

III. Definitions

- 1. One of the reasons I download MP3s is because I *will not* purchase the music
- One of the reasons I download MP3s is because I feel the recording industry has been overcharging the general public for music tapes and CDs
- One of the reasons I download MP3s is because many musicians and the recording industry make millions of dollars anyway, and downloading MP3s of their songs does not really cut into their income
- One of the reasons I download MP3s is because I think music should be free

IV. Differential Reinforcement

- 1. It is a great benefit to sample new music through MP3s
- It is a great benefit to be able to transfer assorted MP3s onto an audio/data CD or a portable MP3 player so that I can have music on-the-go
- 3. It makes me feel good to download a song that I have wanted
- 4. It is a great benefit to me to be able to access music freely

Appendix D: Bandura, Barbaranelli, Caprara, & Pastorelli's (1996) measures of moral disengagement

- 1. It is alright to fight to protect your friends.
- 2. Slapping and shoving someone is just a way of joking.
- Damaging some property is no big deal when you consider that others are beating people up.
- A kid in a gang should not be blamed for the trouble the gang causes.
- If kids are living under bad conditions they cannot be blamed for behaving aggressively.
- It is okay to tell small lies because they don't really do any harm.
- 7. Some people deserve to be treated like animals.
- If kids fight and misbehave in school it is their teacher's fault.
- It is alright to beat someone who bad mouths your family.
- To hit obnoxious classmates is just giving them "a lesson."
- 11. Stealing some money is not too serious compared to those who steal a lot of money.
- 12. A kid who only suggests breaking rules should not be blamed if other kids go ahead and do it.
- 13. If kids are not disciplined they should not be blamed for misbehaving.
- Children do not mind being teased because it shows interest in them.
- 15. It is okay to treat badly somebody who behaved like a "worm"
- 16. If people are careless where they leave their things it is their own fault if they get stolen.

- 17. It is alright to fight when your group's honour is threatened.
- 18. Taking someone's bicycle without their permission is just "borrowing it."
- 19. It is okay to insult a classmate because beating him/her is worse
- 20. If a group decides together to do something harmful it is unfair to blame any kid in the group for it.
- Kids cannot be blamed for using bad words when all their friends do it.
- 22. Teasing someone does not really hurt them.
- 23. Someone who is obnoxious does not deserve to be treated like a human being.
- 24. Kids who get mistreated usually do things that deserve it.
- 25. It is alright to lie to keep your friends out of trouble.
- 26. It is not a bad thing to "get high" once in a while.
- Compared to the illegal things people do, taking some things from a store without paying for them is not very serious.
- 28. It is unfair to blame a child who had only a small part in the harm caused by a group.
- 29. Kids cannot be blamed for misbehaving if their friends pressured them to do it.
- 30. Insults among children do not hurt anyone.
- 31. Some people have to be treated roughly because they lack feelings that can be hurt.
- 32. Children are not at fault for misbehaving if their parents force them too much.

Department of Sociology University of Saskatchewan

WIN AN IPAD MINI!!!

SURVEY PARTICIPANTS NEEDED FOR STUDY OF MUSIC PIRACY

We are looking for volunteers to complete an online survey.

As a participant in this study, you will be asked to provide information about how you access and download music, as well as your experiences using the Internet and World Wide Web

In appreciation for your time, you will be entered in a draw for an Apple iPad mini or gift cards of a similar value.

To participate in this study, simply follow the following link:

fluidsurveys.usask.ca/s/popham_music1/

This study has been reviewed by, and received approval through, the Research Ethics Office, University of Saskatchewan.



Appendix F: Information letter/consent form

You are invited to participate in a research study entitled "The Internet as a catlyst for microdeviations from intellectual property copyright law." Please read this form carefully, and feel free to ask any questions you might have about the study by contacting the researcher.

Student Researcher: James Popham, PhD candidate, Department of Sociology, University of Saskatchewan, 519.756.8228 ext.5631, <u>James.Popham@usask.ca</u>

Principal Investigator: Dr. Hongming Cheng PhD, Department of Sociology, University of Saskatchewan, 306-966-5913, Hongming.Cheng@usask.ca

Purpose and Objectives of the study: The purpose of the current study is to examine participants' habits in and perception of downloading copyright protected works of intellectual property (specifically music) without permission from and payment to the rights holder (hereafter "downloading") as it relates to their participation in the online world.

You will be asked to provide information in six sections: Basic demographic information; information about your downloading; your participation in online communities; your level of expertise with computers; your level of trust for the online world; and your opinion on a series of statements. This survey will distributed to approximately 5,000 undergraduate students in Canada. It can be completed online and should take no longer than 20 minutes.

Risks/Benefits: Downloading a copyrighted work without paying for it, or doing so without the permission of the copyright holder, is considered an infringing reproduction under section 29.22 of the Canadian Criminal Code. While downloading is criminalized in Canada, recent court rulings have made it impractical for copyright holders to pursue individual downloaders (Voltage Pictures LLC v. Doe 2014 FC 161). Given these recent court rulings there are no known or anticipated risks to you by participating in this research.

Compensation: At the conclusion of this survey you will have the opportunity to voluntarily provide your email address for the sole purpose of entering a draw to compensate for your time. One winner will be selected from all participants who opt in, and the prize will be an Apple iPad mini or a gift card of equal value. If you would like to enter the draw but prefer not to provide your email address, you may contact the researchers to be included.

Confidentiality: As a participant in online survey, your identity will be protected and your personal information will not be associated with your responses even if you choose to enter the draw. The researcher will not be able to identify specific responses to any particular individual. All data will be presented in aggregate form. In other words, all data will be combined and reported as categories and themes.

Any information provided during the survey will be safeguarded and securely stored in a password protected digital cabinet on the University's local intranet, and will be stored for five years. If after five years there is no further requirement for the data, it will be destroyed by deletion.

By default we do not collect IP addresses or any other electronic identifying information. Please note that this survey is hosted by Fluid Survey, a USA owned company and subject to US laws and whose servers are located outside of Canada. The privacy of the information you provide is subject to the laws of those

other jurisdictions. By participating in this survey you acknowledge and agree that your answers will be temporarily stored and accessed outside of Canada and may or may not receive the same level of privacy protection.

Right to withdraw: Participation in this survey is voluntary, and you can decide not to participate at any time, or choose not to answer any questions you don't feel comfortable with. Survey responses will remain anonymous. Since the survey is anonymous, once it is submitted it cannot be removed.

Questions: You are encouraged to contact the researchers at the email address provided above if you have questions about this study now or at a later time. This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

The results of this evaluation will be available in the Spring of 2016. You may obtain a copy of the results of the study by contacting the student-researcher or the supervisors using the contact information provided above.

By completing and submitting the online survey, YOUR FREE AND INFORMED CONSENT IS IMPLIED and indicates that you understand the above conditions of participation in this study.

Appendix G: Survey Instrument

Study Information

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Principal Investigator: Dr. Hongming Cheng PhD, Department of Sociology, University of Saskatchewan, 306-966-5913, Hongming.Cheng@usask.ca

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You will be asked to provide information in six sections: Basic demographic information; information about your downloading; your participation in online communities; your level of expertise with computers; your level of trust for the online world; and your opinion on a series of statements. This survey will distributed to approximately 5,000 undergraduate students in Canada. It can be completed online and should take no longer than 20 minutes.

Risks/Benefits: Downloading a copyrighted work without paying for it, or doing so without the permission of the copyright holder, is considered an infringing reproduction under section 29.22 of the Canadian Criminal Code. While downloading is criminalized in Canada, recent court rulings have made it impractical for copyright holders to pursue individual downloaders (Voltage Pictures LLC v. Doe 2014 FC 161). Given these recent court rulings there are no known or anticipated risks to you by participating in this research.

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Confidentiality: As a participant in online survey, your identity will be protected and your personal information will not be associated with your responses even if you choose to enter the draw. The researcher will not be able to identify specific responses to any particular individual. All data will be presented in aggregate form. In other words, all data will be combined and reported as categories and themes.

Any information provided during the survey will be safeguarded and securely stored in a password protected digital cabinet on the University's local intranet, and will be stored for five years. If after five years there is no further requirement for the data, it will be destroyed by deletion.

By default we do not collect IP addresses or any other electronic identifying information. Please note that this survey is hosted by Fluid Survey, a USA owned company and subject to US laws and whose servers

are located outside of Canada. The privacy of the information you provide is subject to the laws of those other jurisdictions. By participating in this survey you acknowledge and agree that your answers will be temporarily stored and accessed outside of Canada and may or may not receive the same level of privacy protection.

Right to withdraw: Participation in this survey is voluntary, and you can decide not to participate at any time, or choose not to answer any questions you don't feel comfortable with. Survey responses will remain anonymous. Since the survey is anonymous, once it is submitted it cannot be removed.

Questions: You are encouraged to contact the researchers at the email address provided above if you have questions about this study now or at a later time. This research project has been approved on ethical grounds by the University of Saskatchewan Research Ethics Board. Any questions regarding your rights as a participant may be addressed to that committee through the Research Ethics Office ethics.office@usask.ca (306) 966-2975. Out of town participants may call toll free (888) 966-2975.

The results of this evaluation will be available in the Spring of 2016. You may obtain a copy of the results of the study by contacting the student-researcher or the supervisors using the contact information provided above.

By completing and submitting the online survey, YOUR FREE AND INFORMED CONSENT IS IMPLIED and indicates that you understand the above conditions of participation in this study.

Definition

Throughout this survey we will refer to "music piracy" or simply "piracy." For the purpose of our survey, music piracy refers to downloading popular music as digitally compressed audio files (such as MP3, WMA, FLAC, etc.) without paying for them and/or without the permission of the artist or organizations that hold the copyright for the song. This form of music piracy most commonly consists of accessing files through peer-to-peer (P2P) networks.

Wl	nat year were you born in?
W	nat is your gender?
W/I	nich province do you live in?
	Alberta
0	
0	British Columbia
0	Manitoba
0	New Brunswick
0	Newfoundland and Labrador
0	Northwest Territories
0	Nova Scotia
0	Nunavut
0	Ontario
0	Prince Edward Island
0	Quebec
0	Saskatchewan
0	Yukon
0	Outside of Canada
Ar	e you currently attending a post-secondary education institution (e.g. Univeristy or College)?
0	Yes
0	No
If y	yes, what is your current level of study
0	Undergraduate: First year (Freshman)
0	Undergraduate: Second year (Sophomore)

0	Undergraduate: Third year (Junior)							
0	Undergraduate: Fourth year (Senior)							
0	Undergraduate: Fifth year or more							
0	Graduate: Master's program							
0	Graduate: PhD							
0	Graduate: Other							
0	College: First year							
0	College: Second year							
0	College: Third year or more							
If y	ves, what is your field of study?							
(Se	elect your faculty and more specific options will	l app	ear)					
	Agriculture and bioresources:	0	Physiology and Pharmacology					
0	Agribusiness	0	Political Studies					
0	Agricultural biology	0	Psychology					
0	Agricultural Economics	0	Public Administration					
0	Agronomy	0	Regional and Urban Planning					
0	Animal Bioscience	0	Sociology					
0	Animal Science	0	Statistics					
0	Applied Plant Ecology	0	Studies in Religion and Culture					
0	Crop Science	0	Studio Art					
0	Environmental Science	0	Toxicology					
0	Food and Bioproduct Sciences	0	Transition Program					
0	Horticultural Science	0	Women's and Gender Studies					
0	Renewable Resource Management	0	Other					
0	Soil Science		Business:					
0	Other	0	Accounting					
	Arts and Science:	0	Finance					

0	Aboriginal Public Administration	0	Human Resources
0	Anatomy and Cell Biology	0	Management
0	Anthropology	0	Marketing
0	Applied Mathematics	0	Operations Management
0	Archaeology	0	Other
0	Art History		Education:
0	Biochemistry	0	Teacher Education Program
0	Biochemistry and Biotechnology	0	Combined Kinesiology/Education
0	Bioinformatics	0	Home Economics
0	Biology	0	Industrial Arts
0	Biotechnology, Microbiology and Immunology	0	Elementary/Middle Years
0	Business Economics	0	Secondary
0	Chemistry	0	Secondary Technical Vocational Education
0	Classical, Medieval and Renaissance Studies	0	Adult and Continuing Education
0	Computer Science	0	Special Education
0	Computing	0	Secondary Technical Vocational Education
0	Criminology	0	Teaching English as a Foreign Language
0	Drama	0	Teaching English as a Second Language
0	Economics	0	Other
0	English		Engineering:
0	Environment and Society	0	Chemical Engineering
0	Environmental Biology	0	Civil Engineering
0	Environmental Earth Sciences	0	Computer Engineering
0	Food Science	0	Electrical Engineering
0	French	0	Engineering Physics
\circ	Geology	\circ	Environmental Engineering

0	Geophysics	0	Geological Engineering
0	Health Studies	0	Mechanical Engineering
0	History	0	Other
0	Interactive System Designs		Kinesiology:
0	International Studies	0	Combined Kinesiology/Education
0	Linguistics	0	Exercise and Sport Studies
0	Mathematical Physics	0	Physical Education Studies
0	Mathematics	0	Other
0	Microbiology and Immunology		Law and Medicine:
0	Modern Languages	0	Dentistry
0	Music	0	Law
0	Music Education	0	Medicine
0	Native Studies	0	Nursing
0	Northern Studies	0	Nutrition
0	Palaeobiology	0	Pharmacy
0	Philosophy	0	Veterinary Medicine
0	Physics	0	Other
If n	o, have you		
0	Completed high school but no post-secondary	edu	cation
0	Completed some post-secondary education bu	t not	graduated
0	Graduated from a post-secondary education pr	ogra	nm
	you currently or have you ever used digital mu C, FLAC, or other formats)	sic f	files? (This could include MP3, WMA,
0	Yes		
0	No		

About how many of these files do you have on your personal music device(s) or computer?
Do you download songs with permission from the artist or publisher? (This could mean purchasing from the iTunes store, direct downloads from an artist's website, etc.)
O Yes
O No
About how many songs do you download per year with permission? (Please enter a number only)
About what percentage of your digital music collection were downloaded with permission? (Please enter a number only)
Please tell us which websites and/or services you use to download music with permission (Check all that apply):
☐ Microsoft Xbox music
☐ Apple iTunes store
☐ Amazon MP3
□ 7digital
☐ Google Play
□ eMusic
□ Rhapsody
☐ HMV Online
☐ Direct from artist (e.g. websites)
☐ Other, please specify

Have you ever pirated music? (This could downloading music from sources like torrents)
O Yes
O No
About how many songs do you download per year without permission? (Please enter a number only)
About how many songs in your digital music collection were downloaded without permission? (Please enter a number only)
Please tell us which websites and/or services you use to download music without permission (Check all that apply):
☐ KickAss Torrents
□ Demonoid
☐ ISOHunt
☐ The PIrate Bay
□ Monova
☐ TorrentDownloads.net
□ LuckyWire
□ Vuze
☐ Morpheus
☐ Other, please specify
Do you stream music?
O Yes
O No

Are	e you active in any forms of online social media?
0	Yes
0	No
If y	res, which of the following social media sites/services do you use? (check all that apply)
	Pinterest
	Twitter
	Facebook
	Instagram
	Google+
	LinkedIn
	Tumblr
	Snapchat
	Omegle
	Vine
	Other, please specify
Are site	e you a regular contributor to any message boards/forums/topic-specific communications es?
0	Yes
0	No

•	If yes, which of the following message boards/forums/topic communication sites do you use? (check all that apply)				
	Reddit				
	Digg				
	4chan				
	deviantART				
	flickr				
	The Pirate Bay				
	YouTube				
	imgur				
	Specialized forums (e.g. gaming)				
	Other, please specify				

How often do you use the social media services you selected?

	More than once a day	Once a day	Once every 2-3 days	Once a week	Less than once a week	Do not use
Pinterest	0	0	0	0	0	0
Twitter	0	0	0	0	0	0
Facebook	0	0	0	0	0	0
Instagram	0	0	0	0	0	0
Google+	0	0	0	0	0	0
LinkedIn	0	0	0	0	0	0
Tumblr	0	0	0	0	0	0
Snapchat	0	0	0	0	0	0
Omegle	0	0	0	0	0	0
Vine	0	0	0	0	0	0
Other, please specify	0	0	0	0	0	0

How often do you use the message boards/forums/topic communication sites that you selected?								
	More than once a day	Once a day	Once every 2-3 days	Once a week	Less than once a week	Do not use		
Reddit	0	0	0	0	0	0		
Digg	0	0	0	0	0	0		
4chan	0	0	0	0	0	0		
deviantART	0	0	0	0	0	0		
flickr	0	0	0	0	0	0		
The Pirate Bay	0	0	0	0	0	0		
YouTube	0	0	0	0	0	0		
imgur	0	0	0	0	0	0		
Specialized forums (e.g. gaming)	0	0	0	0	Ο	0		
Other, please specify	0	0	0	0	0	0		
About how long have provide the number of		g an Interne	et-connected co	omputer or	similar device?	(Please		
About how have you had access to high-speed (faster than dial-up) Internet access? (Please provide the number of years)								

Using a 5 point scale, with 1 being lowest (not comfortable at all) and 5 being highest (completely at ease), tell us how comfortable you are with each of the following tasks:

	1	2	3	4	5
Your overall expertise with computers	0	0	0	0	0
Using an operating system	0	0	0	0	0
Using a web browser	0	0	0	0	0
Using social media	0	0	0	0	0
Researching an issue or question	0	0	0	0	0
Downloading files	0	0	0	0	0
Creating a website	0	0	0	0	0
Writing a computer program	0	0	0	0	0
Formatting a hard drive	0	0	0	0	0
Installing an operating system	0	0	0	0	0
Assembling a computer from parts	0	0	0	0	0
Bookmarking a website	0	0	0	0	0
Doing an advanced file search	0	0	0	0	0
Adding a web resource to favourites	0	0	0	0	0
Tagging photos in social media	0	0	0	0	0
Setting/changing software preferences	0	0	0	0	0
Maintaining a blog	0	0	0	0	0
Maintaining a podcast	0	0	0	0	0
Protecting yourself from phishing	0	0	0	0	0
Using Rich Site Summaries (RSS)	0	0	0	0	0
Using digital currencies (bitcoin)	0	0	0	0	0

Using a 5 point scale, with 1 being lowest (strongly disagree) and 5 being highest (strongly agree), tell us how much you agree with each of the following statements:

	1	2	3	4	5
I engage in online behaviours that might be considered wrong by some people	0	0	0	0	0
Overall, I see no real threat to my privacy from participating in social network websites	0	0	0	0	0
I feel concerned about sharing some personal information online	0	0	0	0	0
I believe that there are individuals or organizations that can access my personal information	0	0	0	0	0
I am concerned about the amount of data about me that is available online	0	0	0	0	0
I believe that individuals or organizations could misuse my data if they accessed it	0	0	0	0	0
I know how to protect my personal information online	0	0	0	0	0
I frequently use technologies to hide my digital trail	0	0	0	0	0
I am confident that I can avoid being caught doing something wrong online	0	0	0	0	0
I am concerned that private corporations have access to my personal information	0	0	0	0	0
I believe that my personal information will be misused by these corporations	0	0	0	0	0
I know how to protect my personal information from these corporations	0	0	0	0	0
I am concerned that government agencies have access to my personal information	0	0	0	0	0

I believe that my personal information will be misused by these agencies	0	0	0		0	0
I know how to protect my personal information from these agencies	0	0	0		0	0
I am concerned that identity thieves can access my personal information	0	0	0		0	0
I believe that my personal information will be misused by these thieves	0	0	0		0	0
I know how to protect my personal information from identity thieves	0	0	0		0	0
When I use the Internet for non-work related purposes, I'm usually on social networking sites	0	0	0		0	0
When I use the Internet for non-work related purposes, I'm usually on anonymous forums or topical sites	0	0	0		0	0
Using a 5 point scale, with 1 being low agree), tell us how much you agree with					ighest (st	rongly
	1	2	3	4	5	N/A
I learned how to pirate music from friends I mainly know in person	0	0	0	0	0	0
I learned how to pirate music from friends I mainly know online	0	0	0	0	0	0
I learned how to pirate music from online, written resources	0	0	0	0	0	0
The friends I know in person are supportive of pirating music	0	0	0	0	0	0
The friends I know online are supportive of pirating music	0	0	0	0	0	0
The websites I visit and materials I read online are supportive music piracy	0	0	0	0	0	0
I believe that music piracy should be	_	_	_	_	_	_

against the law

For this section, please use a 5 point scale with 1 being lowest (totally unacceptable) and 5 being highest (perfectly acceptable) to tell us how acceptable you feel the outcomes are for each of the following stories:

Sarah is a big fan of music and likes to have the latest albums from all of her favourite artists, but cannot always afford them. To keep up with new releases, she will occasionally download the albums without paying for them by using P2P torrent websites. If she likes the album, she'll occasionally buy it at a later date, but she doesn't always do this.

0	Totally unacceptable
0	Somewhat unacceptable
0	Neutral
0	Somewhat acceptable
0	Perfectly Acceptable
me buy	chard has a part time job as a DJ for school dances. He takes requests at these events which ans he often needs to find songs that he doesn't already have. Despite this situation he always as his music through online stores, even when he knows he can pirate the songs from various besites.
0	Totally unacceptable
0	Somewhat unacceptable
0	Neutral
0	Somewhat acceptable
0	Perfectly Acceptable
mu	e of Michelle's friends became quite upset when she realized that most of Michelle's digital sic collection had been pirated. The friend told Michelle that she considers this to be ealing."
0	Totally unacceptable
0	Somewhat unacceptable
0	Neutral
0	Somewhat acceptable

0	Perfectly Acceptable						
Pierre's father was quite impressed with the range of music that Pierre had on his iPod. When Pierre told his father about music piracy, his father asked for Pierre to download his favourite albums.							
0	Totally unacceptable						
0	Somewhat unacceptable						
0	Neutral						
0	Somewhat acceptable						
0	Perfectly Acceptable						
	ing a 5 point scale, with 1 being ee), tell us how much you agree				-		
har cyb	ensic piracy isn't nearly as emful as some of the percrimes that exist (like perbullying or phishing)	0	0	0	0	0	0
	ating music is a way to sample sic before you buy it	0	0	0	0	0	0
for	u can't blame a single person downloading music if most ople do it	0	0	0	0	0	0
of a	ople are expected to be aware new music these days; wnloading music is one way to ep on top of things	0	0	0	0	0	0
Do	wnloading music is good	0	0	0	0	0	0

0

0

0

0

0

because it shows artists that they

People were bootlegging music

with casette tapes years before

downloading got popular

have fans

	e music industry doesn't serve to be protected through	0	0	0	0	0	0
	e music industry is getting at it deserves for mistreating	0	0	0	0	0	0
hig	-				_		(totally unacceptable) and 5 being l the outcomes are for each of the
sor ma	famous band has a new album the fans found a way of downloade available. Before long, a high rent tracking websites.	ding	the di	gital v	ersion	of th	neir album before it was to be
0	Totally unacceptable						
0	Somewhat unacceptable						
0	Neutral						
0	Somewhat acceptable						
0	Perfectly Acceptable						
hac	n spent more than \$100 going to Il spent more than she could affor um, figuring that she had already	rd. Tl	ne nex	t wee	k wee	k she	chose to pirate the artists' newest
0	Totally unacceptable						
0	Somewhat unacceptable						
0	Neutral						
0	Somewhat acceptable						
0	Perfectly Acceptable						

Zacharie usually streams music using his data plan on his phone, but once in a while he uses too much data and has to stop streaming. When this happens, Zacharie just pirates the tracks that typically show up on his favourite streams. He figures there's no major harm since he wouldn't have paid for the music anyway.

0	Totally unacceptable
0	Somewhat unacceptable
0	Neutral
0	Somewhat acceptable
0	Perfectly Acceptable
As: Dis	eesa recently learned about some of the high-dollar lawsuits that the Recording Industry sociation of America had filed against people caught pirating music in the United States. sgusted by these actions, Aneesa vowed to punish the music industry by only pirating music m now on because they do not deserve to be treated with respect.
0	Totally unacceptable
0	Somewhat unacceptable
0	Neutral
0	Somewhat acceptable
0	Perfectly Acceptable
Do	you want to be included in the draw for an iPad mini or gift certificates of equal value?
0	Yes
0	No

Appendix H: Redirect survey for contact information

iPad draw survey
Thank you for completing the survey on downloading music.
If you have indicated that you would like to have your name entered into a draw for an iPad mini or equivalent value in gift cards, please provide an email address where you can be contacted below.
If you do not wish to submit your email address using this interface, please contact the student researcher, James Popham, by email (jpopham@usask.ca) or telephone (519-756-8228, ext. 5063).
The winner will be selected on Monday, September 28th 2015 by random selection.