Social Control in a Subculture of Piracy

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Using unobtrusive observation of several websites and forums, the author of the current study analyzes the nature of formal and informal social controls within subcultures of software piracy. Through this analysis it is proposed that subcultures of piracy exhibit pronounced examples of internal social control measures that limit and control access to the criminal toolkit necessary to successfully pirate, and that various pirate typologies emerge as a result of social control mechanisms endemic to a subculture of piracy as well as the external pressures from formal legal social control. The usefulness of a subcultural perspective of piracy is explored and implications regarding the incorporation of other criminological theories are discussed. Further implications for policy makers, software industry members, and scholars are proposed.

Keywords: Digital Piracy, Social Control, Subculture

INTRODUCTION

Amidst the burgeoning video game industry of the 1970s and early 1980s, computer technologies and play merged (see Mayra 2006) into an industry that now rivals, if not exceeds Hollywood's profits (*San Francisco Chronicle*, 2004). Video games are now a part of popular culture, consumed by a broad demographic and studied by scholars in multiple academic fields (Mayra 2006). This growth has emerged alongside increasing rates of software piracy. According to industry research, the rate of pirated software on PCs in 2008 was 41% (Business Software Alliance [BSA], 2008). This same data suggests that the rapid

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growth of piracy rates in some countries can be attributed to increased adoption rates of PCs with Internet access. This trend is in line with evidence that the Internet facilitates piracy, both for financial and social reasons (Rehn, 2004).

Multiple theoretical frameworks have been used to examine and explain Internet piracy, and an emergent body of literature addresses the phenomenon within a cultural context. Warr (2002) refers to deviant "virtual peer groups" on the Internet, and others have explored both macro cultures of piracy and subcultures of digital media sharing (see Condry, 2004; Marshall, 2004; Kini et al., 2004; Yar, 2005, North and Oishi, 2006). The goal of the present research is to use mixed qualitative methods to study piracy culture and subcultures as specific Internet subcultures. This research focuses on the role of social control in shaping these subcultures and the behaviors of their members. More specifically, this research examines the extent to which social control constructs within subcultures of piracy help regulate group norms and expectations while also facilitating and in some cases defining certain types of pirates. In order to contextualize the study, the following review examines some parties affected by and involved in video game piracy and its politics, piracy motivation, and theoretical explanations of piracy (with emphasis on criminological subcultural theories).

Involved Parties and Political Perspectives

Two obvious roles in the ongoing piracy conflict are those filled by the producer of the software itself and by the publisher of the software. While it stands to reason that publishers are financially harmed by piracy, Katz (2005) suggests that some publishers may choose to be less active in their enforcement of piracy laws in order to maximize profit.

Gupta et al. (2004) likewise suggest that publishers face a challenging balancing task when weighing the potential for piracy to increase distribution of products against the potential for piracy to decrease revenues if these products are not purchased.

Another critical perspective of piracy proposes that the piracy may represent a socially constructed phenomenon resulting from evolving social, legal, and industry ideas and pressures regarding piracy (Yar, 2005). This perspective stresses the importance of examining piracy beyond economic and legal policy, for example, by focusing on its social construction as problem behavior. Regardless, profit is still tied closely with the nature of physical (or digital) media on which data are distributed. Acknowledging both legal and normative consequences, Gayer and Shy (2005) suggest that the introduction of digital distribution has both facilitated piracy and produced conflicts between involved parties.

Policy makers and enforcement agencies represent additional stakeholders in piracy, and certainly the rise of digital file sharing has also been met with the rise of new global political responses to piracy and intellectual property (Shadlen et al., 2005). To offer evidence of the impact of policy institutions on piracy in general, one may observe shifting or emerging political and legal contexts as providing opportunities for increased exploitation, especially with regard to piracy and "bootlegging" of certain goods (Hornsby & Hobbs, 2007). Lacking physically defined borders and enforcement jurisdictions, the Internet represents one such context.

On a broad political scale, Piquero and Piquero (2006) suggest a link between democracy and piracy, citing that political and social climates help define access to legitimate goods as well as digital access to pirated software. This political link also suggests that economic conditions may influence piracy and the emergence of various software pirate

typologies. Not surprisingly then, a lack of established legal and economic institutions in developing countries may be linked with high rates of software piracy (Benerjee et al., 2005) in those countries. Depken and Simmons (2004) also offer evidence that regional economic conditions as well as social and cultural differences play important roles in regard to levels of software piracy.

In contrast, Andres (2006) provides evidence that, on a national level, piracy is negatively correlated with economic inequality. Rodriguez also suggests that income and education have little explanatory power with regard to rates of piracy. Therefore, while it is clearly important to consider the role of enforcement and political structure as it relates to piracy, these forces alone fall short of explaining the cultural structure of piracy.

Theoretical Perspectives of Piracy and its Motivation

The political and economic motivations of the software industry and law-making bodies are oftentimes more clear than those of the software pirates themselves. Regarding the traditional conception of the software pirate as a profit-motivated actor, Chih-Chien (2005) offers evidence that cost-benefit analysis is an important factor in determining whether or not one purchases pirated motion pictures. Wang and Zhu (2003), however, suggests that non-economic factors -- particularly socio-cultural pressures -- may motivate piracy.

Goode and Cruise (2006) explore the motives of software "crackers" (those who alter pirated software for its end-use to be unlocked) and found that the challenge of cracking is the primary motivating factor. Goode and Cruise found that social involvement and acquisition of social status are relatively unimportant to software crackers; however, they

also found that increased individual status is a byproduct of successful software cracking. The present study extends this research by examining the role of non-economic motives within subcultures of piracy. Toward this end, the following review considers piracy and its motivation from the perspectives of rational choice theory, social learning theory, and social control theory.

Rational Choice Theory

The rational decision to commit or desist from a criminal act in the face of possible sanctions constitutes deterrence. Cornish and Clarke (1985) identify a complex version of Beccaria's (1775) deterrence model, incorporating decision-points at each stage of the criminal event, including willingness to engage in crime. At its core, however, Beccaria's deterrence theory hypothesizes that effective deterrence hinges on three factors: certainty of apprehension, the severity of the sanction if apprehended, and the swiftness with which the sanction is applied. Several authors have put these theoretical perspectives to the test with regard to piracy. Peace et al. (2003) found that all three factors are important to deterring software piracy in workplace environments. Higgins et al. (2005) found that certainty of detection is a greater deterrent to piracy among their sample than was the potential severity of the punishment.

Likewise, certain unofficial means may operate to deter piracy. For example, Wolfe et al. (2008) found that fear of computer viruses influence engagement in digital piracy. Higgins et al. (2005) also found that subject-generated deterrents (deterrents identified as effective by study respondents) suggest the potential for effective deterrence of piracy. The success of deterrence may be moderated by other factors, such as gender of the potential

pirate. Chiang and Assane (2008) found that males are less likely to be deterred by economic and risk factors when pirating through file-sharing networks. On a macro-scale, Yang et al. (2007) provide evidence that anti-piracy measures in China explain a large amount of variation in piracy rates, implying that deterrence can be effective in preventing piracy.

Evidence in support of deterrence theory, however, is not universally obtained (see Al-Rafee & Cronan, 2006). Some industry responses would also seem to suggest this is the case. Gillespie (2006) points to a shift in U.S. companies' strategies regarding copyright enforcement, suggesting that these companies now prefer preventing piracy through code and other built-in barriers rather than relying on the threat of law enforcement to deter would-be pirates and enforce piracy law. As an alternative to deterrence through built-in and legal barriers against piracy, Al-Rafee and Cronan (2006) suggest that changing attitudes about digital piracy may be a more impactful approach. Their study reinforces the potential importance of individual and group attitudes toward facilitating or deterring piracy.

Social Learning Theory

Though to a lesser extent than deterrence and rational choice theories, social learning theory has also been applied to piracy. Higgins et al. (2006) found that the inclusion of variables representative of social learning ameliorates the effect of self-control on the likelihood to pirate. Higgins and Makin (2004) provide evidence that association with pro-piracy peers facilitates piracy through social learning. Furthermore, opportunity (operationalized as computer knowledge) has been shown to be a predictor of certain forms of online deviance (Stack et al. 2004).

Higgins (2006) found that when social learning and self-control theories are combined in the same model, the otherwise predicting variable of gender becomes inconsequential in determining the likelihood of piracy. This finding offers evidence that social control theory may be useful in explaining piracy.

Social Control Theories

The present study proposes that a social control theory can help explain the nature of Internet pirate typologies and specifically their operation within a subcultural structure. The criminological social control literature often considers the effectiveness of formal and informal social control measures to deter crime. At a macro level, Durkheim implies a distinction between formal and informal social control, suggesting that organic division of labor stimulates co-operative approaches to social control more so than do repressive, or mechanical approaches (Durkheim 1933).

Contemporary social control theories focus on the notion of informal and formal control mechanisms, or what Reckless encompasses within the concepts of outer and inner containment (Reckless 1961). Reckless' definition of outer containments includes actors and institutions responsible for deterring or mitigating pushes and pulls toward delinquency, whereas he defines inner containments as inclusive of internal characteristics such as a "troubled psyche." Where Reckless emphasizes containments of pushes and pulls toward or away from delinquent behavior, Hirschi's (1969) bond theory conjectures that one may be more or less bonded to society through attachment, commitment, involvement and belief. Likewise, these control schematics may bond a person to a delinquent subculture. Bonds thus incorporate both formal and informal structures, including institutional involvement,

parental and peer attachment, as well as acceptance of cultural norms and values (see Hirschi 1969). Gottfredson and Hirschi (1990) would later include a focus on self-control, suggesting that crime results from a deficiency in self-control, for example, one's ability to postpone gratification, or an attraction to risky behavior. Hagan (1989) further explores the dynamics of control, emphasizing power-control dynamics in the home, proposing that disproportionate male offending can be explained by observing power structures of patriarchal homes.   Males are socialized to be competitive, aggressive and less supervised, whereas females are more dominated and socialized into domestic practices.

The present study acknowledges and draws on the inherent complexity of the relationship between formal and informal control by synthesizing the concept of social control into the core categories of formal and informal. It does so while producing a typological structure that implicitly evolves from the dynamics of power-control structures within a subcultural context.

Piracy and Subculture

Cohen's (1955) subcultural perspective suggests that within delinquent subcultures, particular goal and status structures are negotiated by members to allow achievement within their respective subcultures. The present study explores the relation between class, status and control within a subculture of piracy by examining the extent to which subculture-specific structures facilitate and dictate member behavior. Cloward and Ohlin (1960) also emphasize subculture structures but further suggest that various types of subcultures influence behavior. The present study's categorization of various piracy "scenes" is in some ways an adaptation of Cloward and Ohlin's notions of criminal, conflict and retreatist subcultural patterns but

with an added emphasis on how social control of deviance within each group differentiates among subcultures.

Peer involvement is a central theme of subculture, including virtual subcultures (Warr, 2002). Though much of the piracy literature's attention to culture has focused on a macro "culture of piracy" (e.g. Condry, 2004; Marshall, 2004; Kini et al., 2004; Yar, 2005), there is existing support for the notion of piracy subcultures within the literature. North and Oishi (2006) found that a desire to be involved with music is positively correlated with the likelihood of making music CD purchases. This finding is noteworthy because it shows the influence of peer group on both social and economic outcomes.

Regarding the influence of fan-culture on piracy, Chiou et al. (2005) found that artist idolization and satisfaction with products is linked with piracy. Specifically, there is some evidence that pro-artist attitudes deter piracy and promote pro-social networks where piracy is frowned upon. The present study finds that certain "legitimate" social networks do indeed discourage piracy through the use of formal and informal social control measures. However, it stands to reason that nearly all pirated software consumers are "fans" of at least some of the software they pirate.

Regardless of the presence or absence of the "fan" label, social interaction is at the heart of a subculture of piracy. For example, Rehn (2004) uses ethnography to study a subculture of piracy and proposes that this subculture represents an economic structure where gift giving and "play" are more important than economic profit. The importance of sharing as a means of achieving status and social standing (see Cohen 1955) are important factors that help shape subcultures of piracy.

The Present Study

The present study uses unobtrusive observation of online forums to assess the nature of interactions and social control mechanics within such piracy subcultures. These groups are also compared to online communities (or subcultures) where piracy is condemned. Furthermore, this study seeks to explore the roles of both informal and formal social controls in shaping these subcultures. Through this examination and discussion, an explanation of the phenomenon of online pirated file sharing is sought, specifically as it pertains to media that is used on home entertainment video game consoles (in this case several past- and current-generation consoles will be examined).[i] The present study seeks to address four primary research questions:

1. What observable forms of formal social control impact subcultures of piracy?
2. What observable forms of informal social control emerge within a subculture of piracy?
3. How does social control impact subcultural behavior?
4. How does social control influence piracy typologies and status structures within a subculture of piracy?

METHODS

Sample

Various sampling strategies and groups have been subjects in the study of piracy, including college undergraduates (see Higgins et al., 2006; 2005; 2004; Chiang & Assane, 2008) and more heterogeneous samples of respondents to online surveys (see Goode & Cruise, 2006; Gupta et al., 2004). The potential for the Internet as a convenient and appropriate source of data is made evident by the reality that those sharing and consuming

digital goods are necessarily using digital means to do so, a relationship that is supported by Stack et al.'s (2004) use of "knowledge of computers" as a proxy for opportunity to pirate.

The present study draws on a sample of web forums that represents some of the digital spaces where software piracy occurs through social interaction between both pirates and non-pirates. As Blevins and Holt's (2009) study of virtual prostitution subculture suggests, samples of web forums are effective for studying online subcultures. Where Blevins and Holt drew on a sample of web forums servicing cities with high prostitution arrests rates, the present study draws on forums solely devoted to online interaction, both for piracy and general discussion of software and its use. The current sample is also constructed to represent contexts in which participants are encouraged by the nature of forums to converse—whereas in contrast, BitTorrent and other file sharing networks or programs may facilitate little or no communication.

Using the information gathered through pilot observational research, the present study generates categories of specific gaming devices that are frequently discussed in the context of piracy. Data were collected from eight forums total, representing these specific devices as well as various levels of legitimacy.[ii] Three of these forums are open to (and indeed encourage of) exchange of pirated software and information regarding its use. On the other end of the spectrum, three of the observed forums strictly prohibit discussion or exchange of pirated software and knowledge. The remaining two forums fall somewhere between the two extremes, allowing for limited discussion and occasional links to pirated software downloads. This gray area proves to be an important context for examining the nature of social control within a subculture of piracy because frequent disputes emerge between pirating and non-pirating members.

While it is difficult to ascertain the precise sample size of each forum community, the forum mechanisms usually allowed for monitoring[iii] of online users, numbers of whom were on average 20. On sites where monitoring is unavailable, the user base tended to be extremely large and the forum commercially operated. For example, one website, which is linked to a major gaming magazine, houses some tens of thousands of users, of whom many hundreds, if not thousands, may be active across its forums at one time. Therefore, data were collected only from those forums dedicated to the specified hardware in question, as the researcher's observational experiences (and direction of other forum users) has shown most discussion of piracy on this specific website occurs in these areas.

In addition to collecting data from forums, data were collected from two major online classifieds sites (Craigslist and Kijiji), as well as from the more formal auction website, eBay. These data serve to triangulate, in terms of perspective, the various degrees of social control exhibited within the online and offline exchange of pirated software and knowledge of its use. These data also help to illuminate the potential motives of pirated software providers and consumers. In addition to adding an important perspective regarding motivation, these classified advertisements emphasize the practical nature of what is arguably speculative commentary shared through Web forums. Essentially, it serves to offer validation for a number of concepts and claims presented by members of the piracy subcultures.

Data Collection

Rehn (2004) uses ethnography to study a "warez" subculture. Warez are pirated pieces of software that are typically traded through user sharing networks. The level of

interaction in these networks varies, but in the case of communities built around Web forums these interactions are adequate data sources (Garcia et al. 2009). Similar methodology has been used to study subcultures of music sharing. Cooper and Harrison (2001) provide an analysis of music sharing communities, offering evidence that online subcultures are a means by which pirated files are shared and exchanged. Blevins and Holt (2009) also use ethnography of web forums to study the virtual John subculture.

The present study also uses ethnography to gain access to and observe online subculture. Gaining entrance to the chosen forums posed only limited difficulty. In some cases users are able to read forum posts anonymously without registration, while in only a few cases is registration required to view forum posts. In order to avoid a Hawthorne effect (see Rosenthal, 1966), the researcher did not post messages, thus allowing dialogue to flow organically. Indeed, directed discussion was found unnecessary, as the topics appropriate for this analysis emerged of their own accord. This unobtrusive observation technique is in part representative of a Cyber-ethnographic approach that benefits from being both a reflexive and an appropriate method of capturing the nature of online communities (Ward, 1999). In this way, data were collected over a period of four months, ending when the emergent theoretical and typological categories had been saturated and no new categories or concepts were emerging.

Collected forum threads and classified advertisements were saved and archived by time and date and the specific forum or website in question. These data were then inductively categorized according to the emergent characteristics on two continuums: level of formal social control, and frequency of piracy discussion (also referred to previously as legitimacy).

In total, the sample consisted of 150 forum threads. In addition, "field notes" were taken while browsing these forums and searching for other inlets into the various piracy communities around the Internet.[iv] These field notes serve as methodological notes as well as a validation tool when analyzing the content of forum dialogue.

Analysis

With the goal of qualitatively exploring a subculture of piracy and examining the emergence of social control and typological constructs of piracy, the analytic method was abductive reasoning, a technique in which inductive and deductive techniques are negotiated through theoretical reference and grounded theory (See Ezzy 2002). An alternative approach is to use latent class analysis (LCA), a technique that generates latent classes based on groups (or sets), rather than individual manifest indicators. Higgins et al. (2009) use LCA to generate piracy typologies. While LCA is useful and appropriate for many data sets, the present study's data set lends itself to the use set of methodologies more common to ethnographic research, specifically, domain analysis (see Spradley 1979).

Spradley's domain analysis technique emphasizes the recognition of patterns in themes emergent in the data, either in the form of direct quotes or paraphrased ideas or concepts emergent in participant comments. These themes are then transferred into a coding frame into which all relevant participant talk is placed. In the present study the emergent coding frame includes categories and subcategories for themes of formal and informal social control and the typological constructs of pirates.

Domain analysis is similar to a cross-qualitative approach often employed in social anthropology (see Berg, 2004), wherein a conceptualization and coding framework are

generated by inductively examining field notes and data as they amass. Similar to what is

the case in ethnography, this process provides contextual clarity and situates data into

domains (Spradley 1979) that provide the basis for analyses. This process also provides a

reflexiveness, allowing for abduction (see Shank 1998) when working with theoretical

constructs (e.g. subcultural and social control theory). Law agencies and court studies have

used this methodology, combining a natural experimental design with the analytical tools of

interviews and field notes (e.g. Cook, 2006; Shafer & Mastrofski, 2005). Domain analysis

similar to that used by Denzin (1999), whereby "cybertalk" is analyzed in terms of

instances. Essentially, this strategy considers each observed occurrence as evidence of the

operation of an individual or set of cultural understandings available for use by

(sub)cultural members (also see Psathas, 1995). The analysis technique used here is similar

in that it considers instances evidencing subcultural components, social control exemplars,

and the interaction between these concepts. This methodology serves to facilitate the

abductive process insofar as categories of social control and member identity structure (or

typologies) may be formed and conceptually saturated.

With this analytic framework in mind, the present study categorizes three piracy

"scenes," or in this case, it will be suggested, at least three different subcultures (sharing

many similarities). These scenes revolve around the piracy of software for two different

handheld video game systems: the Nintendo DS and the Sony PSP, and one "dead"[v] home

console: the SEGA Dreamcast. Each one of these video game consoles represents a different

potential for piracy and attracts potentially different types of users. These differences emerge

as important when considering the motives and typologies of software pirates. With regard

to sampling, the SEGA Dreamcast scene is represented by a privately run forum that permits

discussion of piracy but does not overtly encourage it. The Nintendo DS and Sony PSP scenes are represented by several forums, again ranging from those strictly prohibiting discussion of piracy to those dedicated to its discussion. Even in forums prohibiting piracy discussion, conversations about piracy do occur, marking an important conflict between formal control and user-driven topics of discussion.

While the sampling of many different forums enhances the internal validity of the data and findings, it cannot, in and of itself, overcome the reality that many other piracy types (and the respective subcultures surrounding them) exist. In this sense the findings are generalizable at a theoretical level, and indeed the presented typologies of control and users most likely span the gamut of piracy types. The methodology employed in this study has proven useful in building a working framework for the study of the concepts presented.

The qualitative analytical techniques employed here is a good match with the nature of the data and serves as a useful approach to addressing the notions of social control and subculture. As with any qualitative study of online interaction, it is important to recognize that online subcultures differ from offline subcultures in that they neither facilitate nor require face-to-face interaction on any regular basis, if at all (see Garcia et al. 2009; Zickmund, 2000). The researcher (particularly the ethnographer) must therefore adapt to online formats of intimate communication representative of cultural sharing and interaction in a broader sense.

Drawn from the conceptual and categorical frameworks established in the pilot study, the results of this analysis are presented here with a specific focus on three categorical areas: social control, acquisition of piracy knowledge, and piracy motivation. These categories serve as operationalized constructs emergent from the abductive analysis of the data. The

included data excerpts are unedited and are intended to illuminate the findings on both

thematic and theoretical levels while representing the speakers with as little reconfiguration

as possible (an important goal when conveying Internet text, see Markham 2004). One

additional concern when analyzing posts made in web forums is the possibility of duplicate

account posting -- posts made by the same person with multiple online aliases. While there

is little that can be done to prevent this, the forum structure and rules themselves serve to

limit such behavior (see Blevins and Holt 2009, Garcia 2009). Finally, ethical considerations

prevent the identification of user names of those quoted. Through the aforementioned

analytical framework and instruments, every effort has been made to reflect a diverse and

objective cross-section of the sample and emergent data in these quotes.

RESULTS AND DISCUSSION

This section will address the four research questions presented by the current study.

First, it will present an analysis of the nature and role of formal and informal social control in

the observed subcultures of piracy, then an analysis of the relationship between social control

and subcultural behavior with respect to the acquisition of social and technical necessities for

piracy. Lastly, this section will address the relationship between social control and the

development of several emergent pirate typologies.

Formal Social Control

When approaching the subject of social control from a subcultural perspective, it is

important to avoid an overbroad definition of formal social control that includes all acts

relating to the transmission of knowledge through language. For this reason social control

has been operationalized to form three categories:

1. Social control in the form of anti-piracy or copyright law.
2. Social control that is codified in a documented form (for example, Web forum guidelines)
3. Social control that is perceived to be formal by a particular person or group through repeated assessments that it is formal.

This last category of formal social control is treated as a middle-ground between formal and informal control, as again, the present study remains cautious to avoid categorizing all social control as formal under a perceptive umbrella. Social control in the form of law -- arguably its "hardest" form -- is perhaps the easiest to recognize and has received a large amount of attention in the piracy literature. This analysis focuses on the role of anti-piracy and copyright laws in shaping behavioral norms and values in a subculture of piracy.

Previous literature has identified deterrence as at least one goal of anti-piracy legislation. The software pirates in the present study exhibited at least some awareness that anti-piracy laws exist, but beyond a basic understanding of the illegality of downloading current software releases, the piracy community's understanding of such laws illustrates confusion and ambiguity. For example, a forum poster on a popular Nintendo DS pirating board claimed to have heard that "there is a law that you can use it [a pirated piece of software] for 24 hours legally than delete it."

Interestingly, fellow forum members in this case helped to negotiate and interpret the meaning of anti-piracy laws, one responding to the previous assertion with, "I'm pretty sure the law is BS." The confusion regarding legislation does not end with the law itself but extends to ignorance of sanctions and enforcement as well. In one instance, a forum user on a board that prohibits piracy discussion expressed concern after installing custom firmware (an operating system) on his Sony PSP: "i just got cfw [custom firmware] but my friend

keeps telling me to watch out cuz lots of people have gotten caught and fined with extreme amounts of money. so what are the chances of getting caught and fined? >_> kinda paranoid."

Typical responses to these types of fears ranged from "slim to none" to "very high chance actually. And recently Japan and it's internet providers has launched a campaign to stop piracy, and it is working."

Many software pirates were also observed discussing rumors about friends or other persons within the community who had been sanctioned for pirating software. In a response to one such story, a user of a mainstream commercial forum affirmed that sanctioning was a real possibility and went on to add that "i'd suggest you to stop saving illegal PSP isos to your desktop and start buying games. it's for your own good."

Private deterrence measures taken by manufacturers and publishers themselves seem to be met with similarly mixed assessments. When discussing piracy on the Microsoft Xbox 360, one forum user shared the experience of a friend who had used a modified Xbox console: "microsoft not only banned them from playing online but voided their xbox live subscription from what i have heard. so they cant even get online at all."

Whether this example is a perceived or an actual exhibit of social control, formal social control exerted by corporate entities extends at least to the publication of official codes of conduct on Web forums frequented by users who may be interested in discussing piracy. As an example, the popular online classifieds site Craigslist prohibits the sale or advertising of pirated or stolen goods. Interestingly, sellers here have devised clever techniques to avoid automated detection when advertising websites selling pirated goods. One technique involves spacing the letters spelling out a URL address in black font, with white (invisible

against a white background) letters between the black type. This technique may avoid

detection by automated agents, but Craigslist also encourages users to report advertisements

for potentially fraudulent or stolen goods. The result is an interesting and complex social

control scheme that involves multiple interested parties.

Formal attempts to control piracy and its discussion also extend to users of video-

game-specific online services (those accessed through gaming consoles). This type of social

control and its potential sanctions proved to be a common topic of discussion among forum

users. One user of a device allowing pirated software to be played on the Nintendo DS poses

the following question: "Recently i have heard that modded Xbox 360 owners were banned

from playing online. My question is: Since the [device for running pirated software] runs in

stealth mode, is it possible that this can happen to us [device] users in the near future?"

The primary concern of this user, and many like him, is not necessarily that using

pirated software will result in legal trouble, but that it will result in trouble with the

manufacturer or publisher resulting in blocked access to online gaming. It is telling that in

response to this inquiry, one user asserts: "Nintendo was never really aggressive when it

comes to piracy. They haven't done anything about the DS flash carts [devices used to play

pirated games] or anything. The only thing they do is try to make it harder to pirate through

newer revisions."

This dialogue reveals the nature and reception of formal social control by persons

within a subculture of piracy, but the forums on which these discussions are held also provide

examples of formal social control—many of them posting official rules regarding discussion

of piracy and sharing of links to pirated software for download. The manufacturer of the

device under inquiry in the previous quotes has this rule posted on their Web forum: "You may not request or link to ROM's. Any user caught doing this will be dealt with harshly!"

Here we observe an important component of formal social control from the perspective of the manufacturer of piracy enabling devices. The first rules prohibits linking to pirated software but states nothing about discussing how to run pirated software, as obviously their devices are designed for this purpose. Not all manufacturers, however, take the same approach. One user of a forum allowing discussion of piracy using its product comments on another device's official forum: "as an owner of a [device 1] as well as my [device 2], this forum is quite liberal to its attitudes towards ROM discussions in comparison."

Numerous persons claimed to have been drawn to the more liberal of these Web forums (and devices) because of the ease with which piracy may be discussed and the devices in question more fully exploited; however, the differences in formal rules regarding discussion of piracy do not end with the manufacturer websites themselves. A user on one major video game website's forum expresses some confusion regarding the rules: "I really don't understand it. They mod [delete or modify a forum post] you in a second on other boards for talking about ROM's [software file] and ISO's [another type of software file] but here on this board it's encouraged. Makes no sense."

In response, another user proposes that it "..has to do with knowledge of "what" to ask… where do you get this knowledge? Legit or nonlegit site? alot of the questions here though are mostly about firmware to run an ISO of a game not out yet."

Again, we observe here an important theme with regard to perception of formal social control within a subculture of piracy: Social control is interpreted through a negotiated

process involving multiple members of the piracy subculture. This negotiation process is important in defining a subculture of piracy and with regard to the formation of informal social control within the piracy subculture. As an indicator of the link between these control types, one might reflect upon a second rule posted in one forum: "Before you start a topic, perform a search to see if the question or topic you wish to create has been made before. If it has, post in the topic that already exists. Duplicate topics will be closed."

Informal Social Control

The quoted rule regarding searching previous posts confronts an issue irrespective of piracy concerns but central to the concern of many forum users discussing piracy: that informal codes of conduct -- be they in the form of understood etiquette or unwritten rules -- help facilitate efficient and effective exchanges of information regarding how and where to pirate software. In addition, that informal social controls facilitate subcultural cohesion and group identity directed at resolving conflict with out-group norms and laws (see also Cloward and Ohlin, 1960). To suggest, however, that formal rules dictate the formation of such a climate is to exaggerate the impact (and consumption) of formal rules. One user reflects this reality in the following statement about informal knowledge of forum rules:

> I've never read the posting rules at any of the forums where I post, but I've never been banned from any of them either. There's something called common sense which should be applied in situations like this. When you come to a message board (or any social grouping, whether in the real world or on the Internet), you should pay attention to the existing discussions to get a sense of what kinds of things are acceptable to discuss and what kind of attitude or language is acceptable and just generally how best to be what is considered 'civil' in any particular group. This is a basic human skill that every human being should have before being allowed into public places alone. I suggest you develop it quickly.

The preceding quote serves to illustrate the highly informal nature by which many of the components of a subculture of piracy are formed, and it also illuminates the existence of informal social control within this subculture. Informal social control is here operationalized as those individual or group actions or responses that facilitate or reinforce normative conformity. In the case of a subculture of piracy, competing norms are at work. Even in pro-piracy forums much of the discussion revolves around the potential harm caused by piracy. Certain norms regarding general forum behavior and the acquisition of pirated software resonate strongly in the observed examples of informal social control. As a result there is a somewhat blurry distinction between forum etiquette and informal social control. The present study contends that this distinction is important, for it represents the action orientation of norms and values within a subculture and is reflective of a more generalizable phenomenon observable in non-piracy forums as well.

The first type of social control involving reinforcement of dominant cultural norms regarding piracy emerges often in commercial Web forums prohibiting certain pro-piracy discussions. In one instance a user on a popular commercial forum proposes a method of discouraging piracy. This proposition was met with immediate censure by other forum users, including one response that "there is one sure way to stop piracy. Stop making games."

Another forum user supported the proposition to stop pirates, ascertaining that added expenses to the consumer to prevent piracy would be worth it: "nothing is free." This assertion was met with the rebukes that "nothing is free? Ask the pirates. Everything is free to them," and "I think you are being overly optimistic, too. If the pirates can't get their games for free, they are going to quit gaming? No, they will be forced to buy their games or steal them the old-fashioned way."

Referring to pirates in the third person frames them as "the other"—and in many cases, a morally lacking other. It is telling that this process of distinguishing between moral and immoral persons does not end with the dichotomy of pirate versus non-pirate, but extends into pro-piracy groups as well. One member of a pro-piracy group gives an example of his piracy habits:

> … I pirate, I'll admit it. I utilize it as a try-before-you-buy system and I encourage those who are unsure about a game to do the same. If you like it, purchase it and send a message to the company to continue making games. If you don't like it, trash it. No harm done and they don't end up wasting money on a game that they may or may not like.

This study explores the notion of "try-before-you-buy" as a possible technique of neutralizing the criminality of piracy in a later section, but here this concept is used to illustrate a continuum of piracy severity and support within a subculture of piracy. The present study finds that few software pirates voluntarily placed themselves on the extreme ends of this continuum, and it is telling that few would freely admit to rampant piracy of even games "worth buying." One user objected to the claim of another user that pirates are "all bad." One user, when accused by a fellow forum member, expressed resentment over this perspective: "I like how you seem to think every single person who pirates is a no-good thieving low life. Got evidence to support your claim?"

In some rare cases, however, users identified themselves on the extreme end of pro-piracy: "If you can play for free, why would you buy a game? You make it sound like they only pirate the games they don't want to buy. If you can get every game for free, why buy one?" Such drastic support of piracy was met with a common rebuttal: *"To support the video game companies that make them."*

Ultimately, informal social control within a subculture of piracy serves as an indicator

that all pirates are not alike and that members of such a subculture must negotiate the norms

and values of piracy alongside dominant cultural norms and values. The struggle results in a

moral imperative that resembles a continuum rather than a dichotomy. Informal social

control in this subculture can also be observed in the seemingly mundane (such as . . .).

These mundane actions may appear trivial (the rebuke of users posting messages with

improper grammar, for example) but they are important in that they inform a deeper

understanding of the nature of informal social control specific to a subculture of piracy.

One of the most common forms of informal social control exhibited in the observed

forums was the reaction to rule-breaking with respect to locating pirated files. Even in pro-

piracy forums it is often stated that direct links to pirated files may not be provided. Even

novice software pirates exhibit an understanding of the normative rules governing a

subculture of piracy and thus attempt to avoid censure by prefacing certain inquiries

regarding pirated files. One instance was observed in which a new user prefaced his question

with "noob [new user] rom [read only memory, also refers to executable software file]

question:"

> Hi everyone im new here just ordered my [device for Nintendo DS], A-
> Data 4gb [memory card] and [device 2]. Just wondering whats a good site
> to get all the backup roms for all the games i already own for DS,
> GBA[Game Boy Advance], SNES [Super Nintendo] and NES [Nintendo].
> BTW [by the way] i already have gba roms and SNES roms would i just
> need to convert them or something? Thanks in advance.

Though this user is careful to preface his question by acknowledging his new status, and by

claiming to already own the games he wishes to pirate, his post is met with a consensus

response, referring him to the rules of the forum. While rebuking his violation of formal

rules, users also seem to welcome him by offering advice about where to find pirated

software while not directly violating the forum rules themselves: "First rule. ROM sites are

rediculously easy to find," a second user states:

> Even though you own the original ROMS and your intentions are good,
> according to the FAQs you are not really supposed to ask for links to
> ROMS in the forums. There are also multiple threads in the forums on
> backing up your ROMS and SAV [save] files. Do a few searches. It took
> me a few days of reading tons of threads to claw my way out of NOOB
> city.

Some users even offered tutorials with pictures, all the while obeying the rule to avoid direct

links to pirated software. The seemingly confusing message represented by these responses

indicates that this subculture of piracy is aware of its ascribed status as a criminal body of

persons who hurt the industry from which they pirate. As a response to this status, members

of the subculture actively employ informal social control mechanisms to internally create a

new, more structured and morally acceptable cultural imperatives. This allows users to

discuss piracy more freely without acknowledging an alternative view of their pursuits as

anti-social and immoral.

> When I play games like Advance Wars DS and Princess Peach, I close the
> DS to put it in sleep mode, but it doesn't work. The DS screens flash on
> and off when I try to put it in sleep mode, and I was wondering if it is my
> DS that is messed up or something.. Thanks in advance.

A fellow forum member responds: "I can confirm that the problem with Advance Wars

happens for me. Other users have also confirmed it on other threads. I can't speak to Princess

Peach, don't have it."

It is interesting to note that the responding user has not downloaded one of the games

in question, even to test it. Although using a broadband connection it takes less than a

minute on average to download the files in question, a selectivity is exhibited with regard to

which files are pirated. This suggests that the aforementioned moral imperative regarding

owning versus (and in combination with) pirating software is indeed present in a subculture of piracy. Whether to avoid legal sanctions or because of genuine conviction, this imperative is reinforced by persons selling devices used to play pirated software. One such seller advertises, "just Download the games you already own, transfer them to the memory stick and play!!! So it is LEGAL…"

Acquisition of the Criminal Toolkit

The previous two sections illustrate the importance of social control in shaping the normative structure and moral imperative of a subculture of piracy, but social control is also important in controlling the acquisition of the criminal toolkit needed to download and use pirated software, especially on gaming consoles requiring external devices (such as the one advertised in the quote ending the previous section). In the context of subculture this acquisition process and outcome become important insofar as they represent the concept of subcultural capital. Therefore, acquiring the toolkit to pirate is a two-pronged process whereby cultural capital and practical skills are either acquired or their acquisition is negotiated.

With respect to the practical skills, this section will primarily discuss the piracy of Nintendo DS games, as their piracy requires the addition of an external device used in conjunction with the Nintendo DS itself. The devices range in price from roughly $20 to over $50. I observed that it was not uncommon for persons to own multiple devices, and indeed in many cases more money was spent on devices for piracy than may have been spent on several retail games at full price. Acquisition of the external device(s) needed to pirate is itself a process that requires one to possess a certain knowledge base.

Gaining this knowledge base is the first step in acquiring the toolkit necessary to successfully pirate software for most consoles, including the Nintendo DS. To assist in this process, many of the observed websites offer reviews of devices and forums dedicated to the discussion of the benefits and deficits of each product. Seeking information in these contexts is a process regulated by both formal and informal social control, and a user must mind certain subcultural norms in order to successfully acquire this part of the toolkit.

Even on websites dedicated to piracy, formal rules are posted. In one case the following rules are posted clearly on the front page of a Web forum dedicated to the discussion of piracy enabling devices and pirated files:

1. No Spamming
2. Please post in the correct section of the forum for your problems
3. No porn
4. No racism (this will be an instant ban)
5. Be nice
6. Search before posting, chances are the same question has been asked
and answered before
7. No posting in all caps, it is considered yelling and is very annoying and
rude
8. When asking for help, please state what flashcard(if your using an
emulator just don't ask for help, emulators arn't good enough to play all
games 100% and theres nothing we can do)
9. None of this "YO!... i iz noob... when i triez 2 downloadz i gets this;
"User input does not match image string"... helpz me plzzz!!!!"

These rules constitute formal social control aimed at controlling both the methods and the nature of inquiries on the forums. One must conform to rules that, interestingly, mirror many dominant cultural expectations in order to receive positive responses to inquiries regarding piracy and therefore to acquire necessary cultural capital and the practical toolkit to pirate. Several cases were observed in which forum users made conscious efforts to abide by formal rules, even when discussing blatant piracy. Thus, they negotiated acquisition of capital and

knowledge, while still remaining cognizant of their status and the impact social control bears on it: "What's the best place on the internet to download Saturn backups (yes, the safe word..)? They seem hard to come by."

By complying with formal rules, authors of such inquiries avoid reprimand for "being cheap," or "stealing." These considerations prove to be important even within a subculture that is pro-piracy. Regarding the language and approach of users seeking to gain valuable tools and knowledge for piracy, following rules such as number nine listed above prove to be important. One poster enlisted the help of fellow forum users: "HI IM NEW TO THIS ASWELL BUT QUICK QUESTION WHEN I DOWNLOAD A DS ROM AND EXTRACT IT IT AINT GOT A SAVE FILE SO THE GAME WONT WORK...ANY HELP WOULD BE MUCH APPRECIATED," and received few offers of help, but many comments focused on the violation of forum etiquette, such as "turn caps lock off."

The attention paid by many users to forum etiquette reinforces the need to distinguish it from social control. Forum etiquette may represent an expression of (sub)cultural norms and values, but it does not necessarily serve as a form of strict social control. Nevertheless, forum etiquette does play a vital role in successful acquisition of the toolkit necessary to pirate, and it serves the additional purpose of reinforcing formally and informally stated rules, whether they are exclusive to the forum (or subculture) in question, or not.

Regarding etiquette and hierarchy of user status, many new users express some awareness of their status as "new" and preface questions accordingly: "please be gentle, I'm new to the whole DS rom thing... When it comes to playing .iso's on the PSP I'm a pro but this... is over my head big time." By acknowledging a lack of knowledge but still presenting evidence of some credibility as a pirate of other software, one may avoid reprimand and more

quickly gain entrance into a subculture of piracy. A forum member with relatively more experience may be held to different standards according to his or her hierarchical identity. As an example of the directed responses to persons falling into the lower levels of the hierarchy, the present study observed that the most common form of forum etiquette and control (pro or anti-piracy) revolved around users being directed to search for answers to their questions rather than making new posts: "There are quite a few flashcart recommendation topics scattered around the forum. A simple search should help you out," "Before you start a topic, perform a search to see if the question or topic you wish to create has been made before. If it has, post in the topic that already exists. Duplicate topics will be closed," and "why are you asking this question… it's already been answered."

In certain cases where dozens—if not hundreds—of pages of posts populate a forum, this form of informal social control creates an entrance "exam" for potential pirates, requiring them to navigate and acquire information independently before they are embraced into the fold of the community. As further validation for the existence of this process, vendors of modified gaming consoles appear to be cognizant of the potential frustration in acquiring the toolkit needed to pirate and advertise ease of use and all-in-one solutions as selling points for their products: "UNLIMITED xbox 360 games download no hacks or mod chip needed just download and play all the works has been done"

In spite of the apparent difficulties facing acquisition of the piracy toolkit, this study found that certain websites offer more or less accepting environments for new users. One site in particular seems to cater more willingly to new users, offering a number of guides for downloading and using pirated Nintendo DS software, as well as possessing a user base that is willing to help even users posing repeated questions. To support the contention that social

control (especially informal social control) influences the formation and evolution of individual subcultures of piracy, it is not uncommon for users to leave one group for another in the hope of a more welcoming environment from which they may acquire the toolkits necessary to be successful pirates:

"sorry dudes, i didnt knww you people get piss off so easily, sorry i will ask on another board with nice people, bye."

This type of migration is also indicative of the various types of pirates that constitute a subculture of piracy. Certain roles within these groups are formed around specific motives for piracy or goals associated with membership in a group of fellow pirates. The structure of pirate typologies is also impacted by the hierarchical identity structure of relative knowledge and role assumption within a subculture of piracy. Those assuming roles that reflect a relatively high degree of knowledge may express and adhere to qualitatively different sets of informal guidelines, and thus express as well as receive control through different means. With respect to the line between such informal social control and forum etiquette, it is noteworthy to the establishment of the theory that one may observe similar etiquette on forums that have nothing to do with piracy. This suggests that the acquisition of knowledge in a subculture of piracy is reflective of a process necessary to the learning process across subcultures and in fact in dominant culture as well. The typologies outlined below represent a construct of both individual preferences among users and interaction with a subculture reinforcing the aforementioned hierarchy and control structures. The link between these typologies and social control should be considered in the context of both the present study and its implication for social control-deviance links more generally.
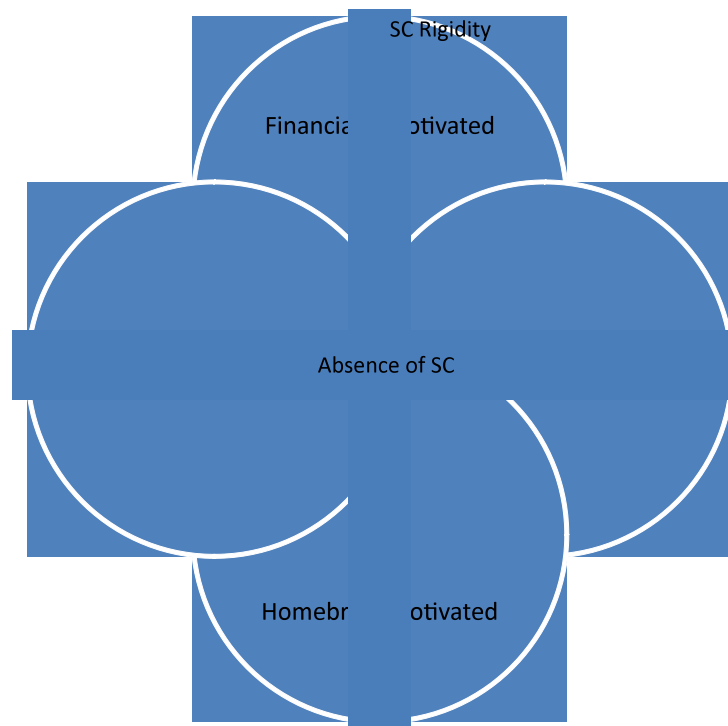
Cloward and Ohlin's (1960) conceptualization of delinquent subculture types (criminal, conflict and retreatist) recognizes a relationship between subculture member behavior, the larger subcultural structure, and motives within which these members operate. The above illustration demonstrates the present study's conceptualization of the relationship between social control, subculture and pirate typology development. In this illustration, as social control rigidity increases, the type of piracy present within the subculture becomes more specialized, whereas less rigid (and informal) mechanisms allow for a greater overlap of pirate typologies. The following sections will explain the emergent typologies in more depth.

PIRATE TYPOLOGIES

Though it is perhaps most logical to assume that piracy is foremost financially motivated, the present study offers evidence of a broad range of piracy motives from which the following typologies are generated. These typologies are not necessarily mutually exclusive of one another, as indeed many pirates exhibited characteristics and motives symbolic of multiple types, but each pirate typology serve to exhibit interest dynamics with respect to social control within the subculture of piracy. Therefore, it is the present study's intention in presenting these typologies to underscore their interaction with social control both with respect to their formation and to their role in delivering informal social control within their respective subcultures. It is also important to recognize that cultural capital plays a role in the formation of these typologies, as social comparisons within a subculture serve to authenticate member status and reinforce the importance of subcultural capital (Widdicombe & Wooffitt, 1990).

Financially-Motivated Pirates

The suggestion that some software pirates are motivated by profit may in fact be true. There are certainly those who sell pirated software and modified gaming consoles designed to run this software. One need only look to the advertisements listed on Web classifieds to observe ads promising goods and services of the pirated nature:

> Buying only 1 game every month would add up to over $600 a year! Now
> with this bundle of EVERY DS GAME EVER MADE your worries are
> over! I'm sure you will be happy with your money saved and your children
> will be happy with being able to PLAY ANY GAME THEY WANT!

This ad is also noteworthy for the methods and language used to attract potential customers. These methods reveal a type of pirate—the buyer—herein referred to as financially

motivated rather than profit motivated. The buyer of the above listed items is presumably not driven by the desire to make a profit but rather to save money in the process of purchasing games he or she already wants. One forum poster solicits help with pirated software he wishes to install on his daughter's Nintendo DS:

> Guys/gals, Ive corrupted my daughters DS Dohhhh! I dropped and
> dragged some files then deleted them and I didnt back up anything before
> I started so now when I put in the card it reads ERROR on the screen.
> Where can I download another or fix this one with the correct files....
> Help!

The above classified advertisement and father's inquiry contradict the notion of the software pirate as a college student with little or no income to spend on games or music, instead suggesting that financially motivated pirates may span a larger demographic gamut.

Another form of financial motivation is the desire to "try before you buy." A number of persons on forums were observed stating that they are willing and eager to purchase software that is deserving of the purchase, implying that games not worth playing will be deleted from their devices or computers or not played at all. This motivation is interesting with respect to social control in that it essentially represents a power reversal whereby the potential consumer plays a perceived (if not a real) role in quality control.

As evidence of the willingness and desire to command this control is the real cost of buying devices needed to play pirated software. As mentioned in an earlier section, these devices can become costly, and many pirates own multiple devices. Therefore, the acquisition of the toolkit necessary to pirate is itself a financial consideration that garners the concern of potential and active pirates: "When will the price of a [device] go down? Don't you fear the competitive pricing of other offerings?" This particular financial cost is one that

seems preferable, both because it may save money in the long run and grant power to the user and control to the collective user base with respect to publisher accountability.

This additional necessity of spending money to save money (or make money) through software piracy makes it difficult to cast the financially motivated pirate as a certain "type" of person, demographically speaking. While demographic characteristics were certainly not disclosed often in the observed forums, emergent was a fairly certain sense that many of the users had at least the financial means to purchase multiple devices totaling in the hundreds of dollars. Like the manufacturers of the games themselves, the manufacturers of these piracy enabling devices are competing for business. An interesting dynamic is therefore constructed whereby pirates are mindful of the financial costs and benefits of piracy but also placed in a position to make consumer decisions as individuals and more importantly as groups, here represented by subcultures of piracy.

"Homebrew"-Motivated Pirates

With respect to the aforementioned piracy enabling devices, many device manufacturers openly discourage piracy. Whether this discouragement is in an effort to curb legal liability or reflective of a real desire to have their devices used for other purposes is unclear. Apart from piracy, however, the other major function of these devices is to run what is referred to as "homebrew." Homebrew software ranges from home-made games to applications for playing music, movies, or for cheating in or modifying retail games. Forum members often discuss the various devices' built-in methods for enhancing game play:

> The [advertised device] does everything all the other Flash Carts do, and
> more.
> It has an Enhanced Menu by pressing L+R+A+B+X+Y during gameplay
> to bring up options like RTS/RTL, Changing the Brightness (on DS Lites),

> Slow Motion, and returning to the GUI [user interface] to pick another
> game.. It has a very user-friendly GUI, with 99.8% game compatibility
> (realistically speaking, so it's just as good as 100%), and has a great
> support team who are constantly updating the card with firmware updates,
> trying to fix bugs and add new user-requested features as well.

While in this case, "game compatibility" does refer to pirated software, the majority of the

endorsement for this product revolves around extra features. It was observed that many

persons are interested in piracy because of these features that may only be utilized in pirated

versions of software. The clear industry implication here is that consumers desire more

freedom to modify and fully exploit entertainment software, music, and movies and that this

modification and exploitation does not necessarily extend to illegal copying and sharing.

Social control in the subculture of piracy is necessarily tied with the notion of

homebrew, as its development and use contributes strongly to both the formation of shared

cultural values and norms but also to the previously mentioned notions of cultural capital.

Homebrew is the product of a subculture that draws on both collective and individual effort

of members who are often diametrically opposed to agencies of formal control. In this sense

homebrew serves as a symbol of resistance but also a method of binding together a group of

like-minded software enthusiasts (and pirates) into a subculture.

Convenience Motivated

Similar to the homebrew-minded pirate, the convenience-motivated pirate is

concerned with features unavailable in retail releases and in fact may own retail copies of the

games he or she has pirated. The present study observes this type of pirate expressing

primary conern with the inconvenience of carrying multiple game cartridges or in the case of

game collectors, the devaluation of a game after being open and used. For this type of pirate,

downloading and using pirated software is viewed as a means of "backing up" software that has already been purchased legitimately. The autonomy to control one's ownership of software is an added benefit of using such devices.

This backing-up process may be achieved through the use of additional devices that require one to "rip" files from a cartridge or disc and then convert these files into a usable format, or through simply downloading pre-converted files most often referred to as roms. Certain homebrew programs have been created to assist in the first type of backing-up. In reference to one, a user praises its utility:

> Yeah, I just tried this out last night and it backed up all my DS games fine. Quite handy since I don't have any reliable Internet (except at work and I don't think downloading ROMs through the county system would be a good idea), but I've been wanting to get ROMs of the games I own for a while now.

In the purest form, the convenience-motivated pirate is very unlike the financially-motivated pirate, and in fact may ultimately spend more money on devices and software needed to back-up, consolidate, or enhance games he or she has already purchased. The industry implications of this type of pirate are similar to those of the homebrew-motivated variety: The recognition that consumers desire flexibility, autonomy and customizability. With an industry either unwilling to offer or unaware of these desires, piracy may serve as a clear method for achieving these goals, and again, it also serves the added function of uniting similarly interested persons under the umbrella of a subculture, affording support but also offering order and control for its members.

Socially Motivated

If the homebrew- and convenience-motivated pirates are concerned with flexibility and customization with respect to physical artifacts (in the cultural and literal sense), the socially-motivated pirate is driven primarily by the non-tangible or symbolic benefits of membership in a subculture of piracy.

Some piracy techniques facilitate -- if not require – socialization, even outside of the online context. I observed one advertisement for a modified Sony PSP, promising the inclusion of a special battery needed to "unlock" other PSPs to enable piracy and homebrew: "On the PSP is a pandora battery creater so you can turn your friends PSP batteries into a pandora so they can mod their own PSP's."

The social benefits of owning and sharing pirated software and facilitating devices extend to online peer-groups and subcultures as well. In one large group of self-identified "retro gamers," I observed the sharing of knowledge about how to pirate and where to find pirated software as constituting ongoing friendly and pro-social dialogue: "I have almost completely my US Sega Saturn collection, but I have yet to find a few images. Mainly, I am still missing "demos". Here is a list of the games I am missing, if anyone knows where I could locate these files, I would greatly appreciate it."

In response, several links were provided and discussion of the games in question ensued. Certainly there is little if any financial motivation for persons within a subculture of piracy to provide assistance or engage in friendly discussion regarding piracy methods, files, and the games being copied, shared, and played. In contrast to the image of a lone criminal bent on destructively leeching off of others, this study observes that the average software pirate seeks companionship together with access to pirated software. In this regard, Warr's

(2002) *Companions in Crime* is aptly titled to reflect his notion of virtual peer groups'

potential to foster criminal learning and facilitate new types of deviance and criminality. In

the case of piracy subculture, these groups also foster informal social control over members

that extends to a perceived if not actual control over industry decisions.

Ultimately we must consider the socially motivated pirate alongside the other types as

categorically inclusive rather than mutually exclusive. A subculture of piracy is similar to an

offline deviant or criminal subculture in that it may facilitate various roles and personalities,

while encouraging conformity through formal and informal social control.

CONCLUSION

The research and findings presented here are limited to a small representation of an

enormous population of software pirates that spans a diverse spectrum of cultures, languages,

and locales. These findings also represent only one combination of theoretical perspectives

and draw on a methodology that provides a detailed description of the studied subculture but

is limited in its ability to explain piracy in the aggregate. The current study addresses

interaction that connects users through common subcultures facilitated by the Internet,

allowing the sharing of not only files, but culturally significant ideas, customs, and values.

This analysis is useful in the current theoretical context, but could be expanded through

mixed-methods to quantify and generalize the proposed constructs as they relate to the scope

and prevalence of piracy among different groups. The current research provides a foundation

for exploring the interaction between typological development, subcultural dynamics and

social control.   Future research may, however, generate fewer or more software pirate

typologies, as well as variations of the proposed types.

In spite of the current study's limitations, the findings presented here suggest that a subculture of piracy reflects order and control that serves to situate interaction within a framework of appropriateness and rule-awareness. In this way, the members of this subculture engage in an ongoing reactionary process to external formal social controls in the form of anti-piracy and copyright legislation and enforcement. They also react to internal control factors ranging from normative structures to formalized rules whose violation result in real (and often relatively immediate) sanctions from forum administrators and peers.

However aware a subculture of piracy and its members may be of these control mechanisms, it is clear that the legislatively inspired message of anti-piracy is not reaching its intended audience clearly. The messages about laws and sanctions that are conveyed seem to be received with a skepticism regarding their benefit to the consumer (and even software producers). It is therefore important that policy makers and researchers consider both the content of anti-piracy messages and the nature of the intended audience.

The reality that many pirates present legitimate arguments for downloading software in order to exploit its full potential suggests that policy makers and software producers may benefit from creating a more flexible set of policies that reflects both the needs and desires of the software producers and consumers. Policy makers and practitioners should consider delivering the message of these policies more clearly but also more effectively and efficiently. Present on nearly every website from which the present study draws were numerous advertisements from industries unrelated to gaming and to piracy (including anti-marijuana campaign ads). It may be a prudent educational initiative to place on these websites advertisements linking to government websites outlining clear explanations of anti-piracy rules and regulations and links for consumers to become involved in helping to shape

the legislative thought process. Many pirates seem genuinely interested in this knowledge, if for no other reason than to better protect them from "accidentally" engaging in illegal activity they believed was in fact legal, or because they wish to understand their rights with respect to customizing their software use experience.

With respect to research implication, the internal validity of the findings presented here benefit from congruity of observed themes across multiple groups, reinforcing the notion that a subculture of piracy exists in a general sense, as well as in specific instances that vary according to member negotiated meanings. However, as beneficial as it may be to consider online interactions, future research can further increase both internal and external validity, such as by sampling offline users. To enhance the generalizability of findings to a larger phenomenon representative of the piracy population in general, it is suggested that future research consider those subcultures facilitating the piracy of PC software, and perhaps other forms of media (music, movies, etc.). Such research would enable a test of the current thesis, that there is consistency across piracy types with respect to the influence of formal and informal social control.

Future research will also benefit from gathering more specific data about the demographic characteristics of the studied group(s). This information may be difficult to obtain in online observations, but effective survey instruments and procedures may offer insight into the demographic constitution of piracy subcultures. This information could be especially useful when assessing and analyzing the nature of pirate typologies as they relate to person-characteristics.

Ultimately, future piracy research may benefit from a continued exploration the nature of social control in subcultures of piracy, expanding on the incorporation of multiple

theoretical perspectives. Methodologically, the combined use of qualitative and quantitative analysis of data collected both offline and online will help expand the general framework presented in this study. Although the domain analysis technique used here is useful in developing frameworks, content analysis, latent class analysis and other techniques may serve to illuminate more nuanced elements of a similar or expanded nature.

Regardless of the analytic techniques employed, the direction of future research can take many paths each of which may benefit from further incorporation of the subcultural and social control perspectives, specifically in an attempt to capture the multinational nature of piracy communities. The link between social control and subcultures discussed here and should serve to contribute to the existing subcultural literature by illuminating the importance of considering individual behavior and interaction in the context of subculture as interactive with social control dynamics such as formality and rigidity. Future research may benefit from considering the role of these control mechanisms in shaping not only deviant and criminal subcultures, but also in what ways social control influences those processes that contribute to individual and group identity within the context of on and offline subcultures.

Ultimately, regardless of the context of piracy, the video gaming industry and its consumers constitute a complex relationship that continues to evolve amidst the growing political, legal and cultural dynamics of gaming (Mayra 2006). The study of software piracy from multiple disciplinary and methodological perspectives will continue to expand understanding of these dynamics as they relate to piracy and media-related subcultures in general. This body of scholarship can serve to explain and address the concerns of both industry and consumer interests.

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[i] These consoles include the Nintendo DS, Sony Playstation Portable, and Sega Dreamcast.

[ii] Legitimacy in this case refers to compliance with legal standards (in other words, non-piracy).

[iii] Most web forums track the number of online users at any given time, and in some cases also track unregistered browsers.

[iv] The most difficult challenge faced in gaining access to these forums was discovering them. While some were relatively public in nature, others required extensive searching. In the course of these searches a number of "dead end" websites were found, containing numerous malware[iv] threats, as well as solicitation of pornography and other online forms of deviance. While this search process in and of itself proves an interesting topic, it lies beyond the scope of this paper to analyze it in depth.

[v] Within the video game community, "dead" refers to a console for which games are no longer produced.