

## **A proposed study on illegal downloading of video games**

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### **Abstract**

This study investigates the factors influencing “illegal” downloading of pirated games from the Internet. Specifically, it examines how personal factors (“habits”, “affect”, “self efficacy” and “moral judgement”) and social factors (“facilitating conditions” and “social factors”) influence “attitudes towards downloading pirated games” that lead to the “intention to download pirated games” in the future. Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), and Neutralization Theory will be used to as theoretical foundation to explain the research model in this study. A number of implications for businesses will be discussed, suggestions for future research are reviewed and the main contributions of the study will also be delineated.

Keywords: games piracy, neutralization theory, counterfeit games, theory of planned behavior (TPB), global piracy.

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### **Introduction**

Games piracy is defined as the unauthorized use or illegal copying or “burning” of games, sharing games on peer-to-peer networks, or illegal download of games from the internet; such activities continues to be a major drain on the global economy especially games industry (Videogame Piracy – An Overview, 2009). It is difficult to estimate the exact amount of losses between \$1 billion and \$3 billion annually from games piracy because there is no accurate measuring activity on the internet-legitimate to determine how many downloads happened when a hacker cracks a game's protection code and puts the game on the web (Hyman, 2006). Electronic games piracy has been increasing substantially that worried the games industry but internet piracy has been encouraged by the ever-increasing reach of high-speed broadband Internet access (Dejean, 2009; Hyman, 2006; Ojeda-Zapata, 2004; Hunt, 2003; Das, 2008). As the digital environment is evolving and becoming more conducive to the unauthorized use of game files, it is increasing the opportunities for the downloading and uploading of digital files and games on the Internet such as BitTorrent that move large files more efficiently through cyberspace (Kwok, 2004; Hyman, 2006; Ojeda-Zapata, 2004).

Piracy is widespread in games as in music and films. For instance, Spore has been sabotaged by a gamer multitude that downloaded the games via file sharing networks more than 171,000 times within days of its release (Dyer-Witthford and de Peuter, 2009). Asia, Eastern Europe and Latin America has high piracy rate around 80-90 percent (Dyer-Witthford and de Peuter, 2009). Computer-game piracy has lagged behind music piracy because digital game files are much bigger than digital music files and more cumbersome to swap over the Internet (Ojeda-Zapata 2004). Games piracy affect PC games most and console will also get affected in the near future (Dyer-Witthford and de Peuter, 2009). Therefore, computer-game publishers have implemented some counter strategies in order to combat games piracy. These methods include increased copy protection, spoofing, intimidation and capitulation (Ojeda-Zapata, 2004; Myles and Nusser, 2006; Dyer-Witthford and de Peuter, 2009). Surprisingly, consumers, who perceived pirated games at a low cost or downloaded pirated games for free, do not perceive it as a crime (Fed: Consumers risk criminal record over pirated games, 2005). Dyer-Witthford and de Peuter (2009) found that piracy is the only way for many people can afford games and the purpose of piracy is not only for profit.

At the same time, peer to peer networks support, high-speed internet connections and inexpensive and bigger media storage capacity are the three factors that have also opened the opportunities to illegal downloading and digital piracy (Cronan and Al-Rafee, 2008; Pouwelse, Garbacki, Epema and Sips, 2005; Terrell and Rosen, 2003). Wall (2006) found that the Internet facilitates digital piracy because it is easy to perform, bridges transnational gaps and allows for anonymity, thereby creating a sense of a ‘victimless crime’. Similarly, Lysonski and Durvasula (2008) also found that illegal down-loaders are hard to track because of the ubiquitous nature of the Internet. According to Chen, Shang, and Lin (2008), hundreds of thousands more Australians have turned to illegal download sites in the past year to save money on movies, music, software and TV shows during the economic downturn. Total visits by Australians to BitTorrent websites including Mininova, The Pirate Bay, isoHunt, TorrentReactor and Torrentz grew from 785,000 in April last year to 1,049,000 in April this year with a year-on-year increase of 33.6 per cent (Chen et al., 2008).

## Relevant Literature, Theory and Hypotheses

There is no study have been done about consumer attitudes towards games piracy especially in Western Australia as the research gaps for this study. Some concepts from previous digital piracy studies will be used to construct the model for this study. According to Walls (2008), the previous research indicates that social factors have positive relationship with digital piracy but internet usage level has negative relationship with digital piracy. Using theory of Planned Behavior, Peace et al (2003) found that individual attitudes, subjective norms and perceived behavior control were all significantly related to the intention to commit digital piracy with attitude being the strongest predictor. Limayem et al. (2004) adopted the Triandis (1980) model and investigated various factors including social factors, affect, habit, and facilitating conditions. All of these factors except affect significantly influenced both the intention to pirate and actual digital piracy behavior. According to Shin et al. (2004); sociological factors have more influence than economic factors. In this empirical study, sociological factors will be investigated in relation to the level of digital piracy. Further, Al-Rafee and Cronnan (2006) found that people who committed digital piracy wanted to save money and did not believe they would get caught. Additionally, the data analysis indicated that moral judgement was not a significant predictor of attitude towards digital piracy. Banerjee and Cronan (1998) found that individual and situational (social) characteristics influence the intention to do digital piracy. Hence, this study will use personal factors and social factors to measure the attitudes toward downloading pirated games. In this context, the antecedents from previous research for music piracy and software piracy can be used to measure games piracy.

**Neutralization Theory** - The neutralization theory (Sykes and Matza, 1957) has been used to explain a number of criminal behaviours such as digital piracy in this context. Existing literature found that digital piracy offenders do not view piracy as being illegal or unethical (Morris and Higgins, 2009; Ingram and Hinduja, 2008; Hinduja, 2006; Peace et al. 2003). This finding can be explained by using neutralization theory which postulates that individuals are able to neutralize their wrongdoing by justifying their illegal actions as “normal” (Hinduja, 2006). Down-loaders normally mention “it is not my fault to download it for free”, “all my friends are doing it”, “the games industry will not lose too much”, “games developers still makes revenue from other sources”, “I play it myself and it is only for private use” or “I don’t have time to go to the game retailers to purchase the games so I download it” are good examples of the attributes of neutralization theory in explaining digital piracy. Claim of normalcy (“everyone in the society is downloading pirated games from the Internet”), The claim of relative acceptability (“downloading pirated games from the Internet will not murder anyone; people engage in much worse activity than this”), condemnation of the condemners (“how dare the games industries claim that down-loaders are not ethical and it is an illegal activity when they charge their products with high price”), appealing to higher loyalties (“downloading pirated games from the Internet will give benefit to the individuals in the society to have a chance to enjoy games entertainment”), metaphor of the ledger (“All pirated games that I downloaded illegally were enjoyed by everyone in the society so I am a decent person”) are all attributes in neutralization theory to examine games piracy behaviours.

**Theory of Reasoned Behavior** - According to Theory of Reasoned Behavior (TRA) (Ajzen and Fishbein, 1977), a decision to engage in a behavior (downloading pirated games from the Internet) is predicted by an individual’s intention to perform the behavior directly. In addition, an individual’s intention to perform the behavior can be predicted if the individual’s attitude and subjective norms are known. Results from other studies have indicated that attitudes have

a stronger effect on predicting behavioral intentions than subjective norms (Cronan and Al Rafee, 2008; Peace et al., 2003).

**Theory of Planned Behaviour** - Theory of Planned Behaviour (TPB) (Ajzen, 1985; Ajzen, 1991) is a well recognized intention model because it is very useful to understand and explain behaviour in a wide range of topics including digital piracy (Cronan and Al-Rafee, 2008; Peace et al., 2003). Peace et al. (2003) have shown that these factors are strongly affected to attitudes toward the behaviour. In this context, these factors (habits, affect, facilitating conditions, social factors, moral judgement and self efficacy) are those accrue to attitudes toward the behaviour. According to Morton and Koufterous (2008, 491), a recent survey also suggested that attitudes toward digital piracy, subjective norms and perceived level of control in individuals were factors that led to the intention to commit online piracy.

**Habits** - According to Triandis (1980), habits are situation-behavior sequences that have become automatic and occur without self-instruction. An individual's behavior and attitudes are affected by habits because habits are function of an individuals' past experience and the ability to accomplish specific tasks (Limayem et al., 2004). In such instances, habits have positive influence to individuals' attitudes toward downloading pirated games from the Internet. As such, the following hypothes is:

*H1: There is positive relationship between habitual conduct and attitudes toward downloading pirated games from the Internet.*

**Affect** - According to Triandis (1980), affect refers to an individual's feeling of joy, elation, pleasure, depression, dictate, discontentment, or hatred with respect to a particular behavior. Triandis (1980) argues that literature shows a profound and substantial relationship between affect and attitude that will lead to intention to download pirated games from the Internet. The affect factors that used in the questionnaire are positive individual's feeling toward downloading pirated games such as wise, exciting, amusing and pleasant (Limayem et al., 2004). In such instances, affect has positive influence with the attitudes toward downloading pirated games from the Internet. As such, the following hypothesis:

*H2: There is a positive relationship between individuals' affect toward downloading pirated games and their attitudes toward downloading pirated games from the Internet.*

**Moral Judgement** - Moral judgement has been used to predict ethical judgement and attitude (Al-Rafee and Cronan, 2006). Studies in cognitive moral development have consistently affirmed a direct relationship between higher stage of moral judgement and higher occurrence of downloading pirated games from the Internet in this context (Tan, 2002). Several studies have found that moral judgement have a connection with digital piracy which the intention to do digital piracy will decrease if the moral beliefs are increasing (Blasi, 1980; Higgins and Makin, 2004; Higgin et al., 2006; Wolfe and Higgins, 2009). In this context, attitudes toward downloading pirated games from the Internet will be lower when the moral judgement is higher. Hence, the following hypothesis is proposed:

*H3: Individuals who are high on the moral judgement scale will have lower attitudes toward downloading pirated games from the Internet.*

**Self Efficacy** - Self efficacy is the "beliefs in one's capabilities to organize and execute the courses of action required producing given levels of attainment" (Bandura, 1998, p. 624). Self efficacy in this study refers to individuals' judgement of their capability to engage in digital piracy behavior (downloading pirated games from the Internet) in various situations especially technological capabilities (Zhang et al., 2009). Individuals who are involved in

digital piracy behavior should know how to access pirated games that can be downloaded for free from the Internet by using software or direct download from the Internet. Additionally, an individual with high level of self efficacy will have small chance to get caught (Krueger and Dickson, 1994). Therefore, individuals who intend to download pirated games from the Internet should perceive themselves capable of doing the tasks aforementioned. As such, the following hypothesis is proposed:

*H4: There is a positive relationship between self efficacy and attitudes toward downloading pirated games from the Internet.*

**Social Factors** - According to Limayem et al. (2004), social factors can be defined as those norms, roles and values at the societal level that influences an individual's intention to download pirated games from the Internet. In this context, the norms and values that are conveyed through interaction with friends, colleagues, and family members such as comments, suggestions or directives are all examples of social factors (Limayem et al., 2004). In such instances, the influence of social norms on personal behavior is positively related. As such, the following hypothesis proposed:

*H5: Social factors have a positive influence on the attitudes toward downloading pirated games from the Internet.*

**Facilitating Condition** - Facilitating conditions can be defined as those factors in an individual's environment that facilitate the act of downloading pirated games from the Internet such as absence of penalties for illegal downloading, availability of pirated games to download for free and the absence of a code of ethics (Triandis, 1980; Limayem et al., 2004). Similarly, Cheng et al. (1997) found that the low risk of being caught and the ease of piracy are among the main factors that facilitate piracy. In this context, facilitating condition will have positive influence for attitudes toward downloading pirated games from the Internet. As such, the following hypothesis:

*H6: There is positive relationship between facilitating conditions and attitudes toward downloading pirated games.*

#### **Attitudes toward downloading pirated games**

According to Cronan and al Rafee (2008), attitude is one of the major components of the TPB as the best predictor of intention to do digital piracy. Similarly, Peace et al. (2003) found that attitude had the strongest effect on intention to do digital piracy based on TPB. As such, the following hypothesis:

*H7: There is positive relationship between attitudes toward downloading pirated games from the Internet and intention to download pirated games from the Internet.*

#### **Moderating variables**

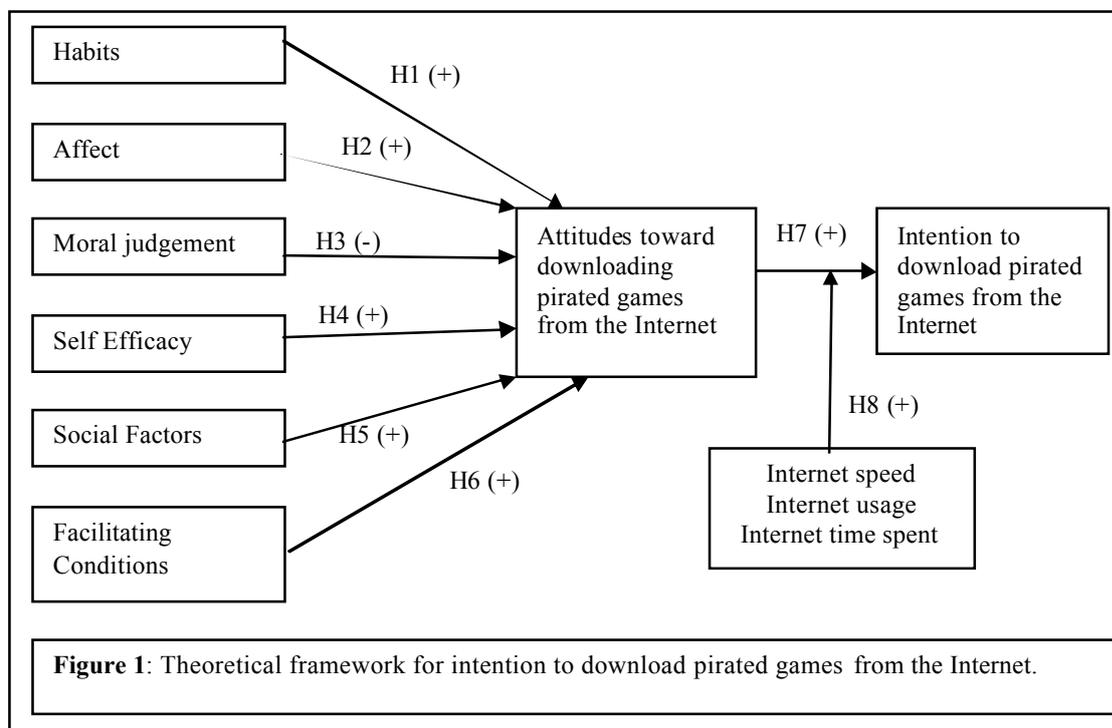
Studies have shown that internet speed facilitate internet users to download files faster (Dejean, 2009; Lewis, 2007) and there is no study about level of internet usage and internet time spent that moderate between attitudes toward downloading pirated games as an independent variable and intention to download pirated games illegally as a dependent variable. Therefore, it is expected that internet speed, internet usage and internet time spent have moderation relationships between attitudes toward downloading pirated games from the Internet with intention to download pirated games from the Internet. Hence, the following hypothesis:

*H8a: Internet usage, Internet time spent, and Internet speed are moderators between attitudes toward downloading pirated games from the Internet and intention to download pirated games from the Internet.*

## Conclusion

The preceding literature review provides the basis for the proposed theoretical framework highlighting the personal factors and social factors will affect consumers' attitude towards games piracy that lead to intention to download games illegally. In addition, the model also shows the effects that internet speed, internet usage, and internet time spent will affect the relationship between attitude towards games piracy and intention to download games illegally. The next step of the study is to design a research methodology and test these proposed hypotheses.

The study offers a number of significant contributions. Theoretically, this study introduces TRA, TPB, and neutralization theory to develop a framework in which to examine insights from existing exploratory games piracy research. Using the TRA and TPB, it will explain how personal factors and social factors influence attitudes towards games piracy that lead to intention to download games illegally in the future. Scales to measure the remaining constructs will be adopted from existing literature to ensure that reliability and validity is ensured. From a managerial perspective, the effect of personal and social factors that influence respondents' attitudes towards games piracy and showing their effect on respondent intention will guide games industry development by developing more sophisticated technology to prohibit other people to pirate their games and government as policymaker to create stricter regulations and harsher penalties for games piracy acts in the market. In addition, games industry has better knowledge of consumers' attitudes towards downloading pirated games to handle games piracy issues by developing customer relationship management to shift consumers who download pirated games into purchasing original games.



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