
A Study on Digital Piracy of Movies: Internet Users' Perspective

Johan Liang, Curtin University, Australia

Ian Phau, Curtin University, Australia

This study investigates the factors influencing “illegal” downloading of movies from the Internet. Specifically, it examines how personal factors (“habitual behaviour”, “affect”, “self efficacy” and “moral judgement”) and social factors (“facilitating conditions” and “social factors”) influence “attitudes towards illegally downloading movies”. Self Control Theory, 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.

Introduction

Movie piracy is the unauthorized use or illegal copying of movies that continues to be a major drain on the global economy especially for the movie-enterprise industry (MPAA, 2005; Walls, 2008). The revenue lost to piracy can be particularly difficult to absorb because most movie projects are already not profitable (De Vany & Walls, 2004; Walls, 2008). The Motion Picture Association of America (MPAA) estimates motion-picture industry losses due to piracy exceed \$3 billion annually in potential worldwide revenue (MPAA, 2005; Lewis, 2007). However, Siwek (2006) estimates that the total loss to American industries in 2005 is around \$US20.5 billion which \$US5.5 million represents wages loss to American workers. Without piracy approximately 141,000 jobs would have been created in the US economy (Siwek, 2006) and USA governments would not lose \$US837 million in tax revenue (MPAA, 2005). In 2005, LEK Consulting estimated that internet piracy accounted for \$92 million lost revenues for the film industry (not including piracy of free-to-air television programs) in Australia and Australian downloaded 11 million illegal copies of films (AFACT, 2007). These will threaten the jobs of close to 50,000 Australian employers in film and television industries in the future (AFACT, 2007).

Electronic movie piracy has been increasing recently that worried the movie industry. It also has been encouraged by the ever-increasing reach of high-speed broadband Internet access (Hunt, 2003; Liebowitz, 2008; Das, 2008; Dejean, 2009). Before broadband Internet access

was available, a pirate needs 20 to 24 hours to download a movie with a 56K modem or dial-up speed. Now the download time is reduced to less than 20 minutes with broadband or DSL speed (Lewis, 2007).

The decision to engage in the piracy of music, film and television programmes from the internet can be related to a number of decision making factors including economic, legal, ethical network and consumer behaviour aspects (Coyle, Gould, Gupta, & Gupta, 2009, p. 1031). According to Chen, Shang, and Lin (2009), 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. For example, the most popular movie – Watchmen – was downloaded 17 million times through Torrent site (Cellan-Jones, 2009). 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, p. 419). Goel and Nelson (2009) found that piracy was less attractive to individuals in wealthier nations and the punishments for possessing pirated software were heavier than poorer nations.

There are few studies which have been done in movie piracy and this research serves to bridge these gaps. In Weigel's (2008) article, it showed that 15 percent losses from share of movie pirating from the Internet attributable to college students and the typical pirate was “age 16-24 and male” from MPAA and LEK Consulting research. Wall (2006) found that the Internet facilitates digital piracy because it was easy to perform, bridges transnational gaps and allowed for anonymity, thereby creating a sense of a ‘victimless crime’. According to Walls (2008), the previous research indicated that social factors had positive relationship with movie piracy but internet usage level had negative relationship with movie piracy. Shin, Gopal, Sanders, and Whinston (2004) found that sociological factors had more influence than economic factors. Al-Rafee and Cronnan (2006) found that people who did digital piracy wanted to save money and did not believe they would get caught. In addition, the data analysis indicated that the relationship between moral judgement and attitude towards digital piracy was not significant.

Banerjee, Cronan, and Jones (1998) found that individual and situational (social) characteristics influenced the intention to do digital piracy. Thus, this study will use personal factors and social factors to measure the attitude towards downloading movies for free. Lau (2003) also found that people with a good knowledge of copyright law were unlikely to be involved in digital piracy. Using theory of Planned Behaviour, Peace, Galleta, and Thong (2003) found that individual attitudes, subjective norms and perceived behaviour control were all significantly related to the intention to commit digital piracy with attitude being the strongest predictor. Limayem, Khalifa, and Chin (2004) adopted the Triandis (1980) model and investigated various factors including social factors, affect, habit, and facilitating conditions in digital piracy study. All of these factors except affect significantly influenced both the intention to pirate and actual digital piracy behaviour.

Theoretical Framework and Hypotheses

Self Control Theory

Gottfredson and Hirschi's (1990) self control theory suggested that self-control was the principle causal factor for all crimes. Gottfredson and Hirschi (1990) argued that individuals who were subjected to poor or ineffective parenting practices (i.e., no emotional attachment, lack of monitoring, no recognition of deviant behaviour, and the use of corporal punishment) were likely to have low self-control (i.e., the inability to foresee the long-term consequences of a behaviour). Those with low self-control are likely to perform criminal behaviour when an opportunity presents itself (Gottfredson & Hirschi, 1990; Higgins, Wolfe, & Ricketts, 2009). In this context, digital piracy is a criminal behaviour (Zhang, Smith, & McDowell, 2009; Higgins et al., 2009). It is expected that low-self-control will have a link to digital piracy because it is easy to perform and no one is being harmed. Although digital piracy is not a physical act, the sense of thrill, excitement and risk still affect the individuals who did the digital piracy (Higgins, Fell, & Wilson, 2006).

Neutralization Theory

Existing literature found that digital piracy offenders do not view piracy as being illegal or unethical (Morris & Higgins, 2009; Ingram & Hinduja, 2008; Hinduja, 2006; Peace et al., 2003). This finding can be explained by using neutralization theory (Sykes & Matza, 1957) 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 movie industry will not lose too much", "film makers still makes revenue from cinema and other sources", "I watch it myself and it is only for private use" or "I don't have time to go cinema to watch the movies 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 movies for free from the Internet"), the claim of relative acceptability ("downloading movies for free from the Internet will not murder anyone; people engage in much worse activity than this"), condemnation of the condemners ("how dare the movie industries claim that down-loaders are not ethical and it is illegal activity when they charge their products with high price"), appealing to higher loyalties ("downloading movies for free from the Internet will give benefit to the individuals in the society to have a chance to enjoy visual entertainment"), metaphor of the ledger ("All movies 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 movie piracy behaviours.

Theory of Planned Behaviour

Azjen's Theory of Planned Behaviour (TPB) 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 (Azjen, 1985; Morton & Koufteros, 2008; Cronan & Al Rafee, 2008; Peace et al., 2003). Both personal and social factors influence intention to illegally downloading movies as explained by TRA (Beck & Azjen, 1991). Peace et al. (2003) have shown that these factors are strongly affected to attitude towards the behaviours. In this context, these factors (habitual behaviour, affect, facilitating conditions, social factors, moral judgement and self efficacy) are those accrue to attitude towards the behaviour. According to Morton and Koufteros (2008, p. 491), a recent survey conducted of 216 respondents based on this planned behaviour theory also suggested that attitude towards digital piracy, subjective norms and perceived level of control in individuals were factors that led to the intention to commit online piracy. In order to gain an initial exploratory understanding of the movie downloading phenomenon situation, this paper uses the wide model view of rational choice (refer to Figure 1).

Hypotheses Development

Habitual Behaviour According to Triandis (1980), habitual behaviour is situation-behaviour sequences that have become automatic and occur without self-instruction. An individual's behaviour and attitude 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, habitual behaviour has positive influence to individuals' attitudes towards illegally downloading movie. As such, the following hypothesis:

H1: There is a positive relationship between habitual behaviour and attitudes towards illegally downloading movies.

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 behaviour. Triandis (1980) argues that literature shows a profound and substantial relationship between affect and attitude that will lead to intention to download movies illegally. The affect factors that used in the questionnaire are positive individual's feeling toward illegally downloading movies such as wise, exciting, amusing and pleasant (Limayem et al., 2004). In such instances, affect has positive influence with the attitudes towards illegally downloading movies. As such, the following hypothesis:

H2: There is a positive relationship between affect and attitudes towards illegally downloading movies.

Moral Judgement Moral judgement has been used to predict ethical judgement and attitude (Al-Rafee & Cronan, 2006). Studies in cognitive moral development have consistently affirmed a direct relationship between higher stage of moral judgement and higher occurrence of downloading movies for free from the Internet (Tan, 2002). Blasi (1980) proved that there is a significant relationship between moral thinking and moral behaviour that will affect

H3: There is a negative relationship between moral judgement and attitudes towards illegally downloading movies.

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 behaviour (downloading movies illegally from the Internet) in various situations especially technological capabilities (Zhang et al., 2009). Individuals who are involved in digital piracy behaviour should know how to access movies that can be downloaded for free by using software or direct download from the Internet. In addition, an individual with high level of self efficacy will have a small chance to get caught (Krueger & Dickson, 1994). Therefore, individuals who intend to download movies for free from the Internet should perceive themselves capable of doing the tasks aforementioned. As such, the following hypothesis is proposed:

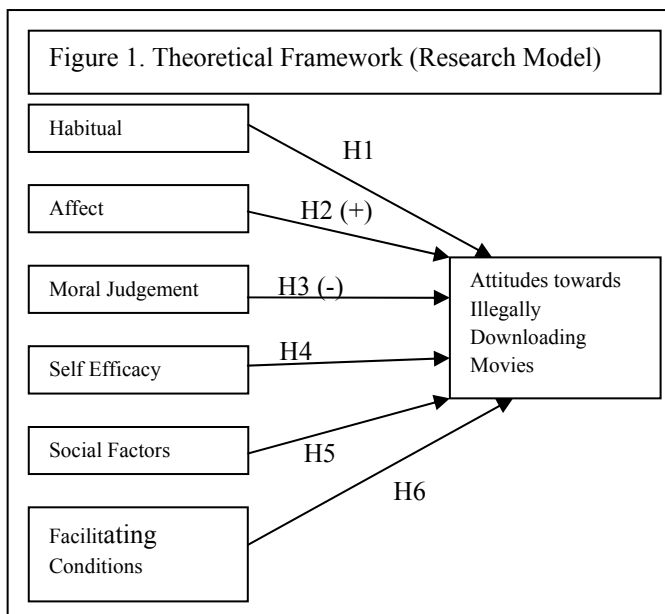
H4: There is a positive relationship between self efficacy and attitudes towards illegally downloading movies.

Social Factors According to Limayem et al. (2004), perceived social pressure refers to individuals' perception affected by most people that influential to them think that the behaviour should be performed or not. Social factors can be defined as those norms, roles and values at the societal level that influences an individual's intention to download movies illegally. 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 behaviour is positively related. As such, the following hypothesis proposed:

H5: There is a positive relationship between social factors and attitudes towards illegally downloading movie.

Facilitating Conditions Facilitating conditions can be defined as those factors in an individual's environment that facilitate the act of illegally downloading movies such as absence of penalties for illegal downloading, availability of movies to download for free and the absence of a code of ethics (Triandis, 1980; Limayem et al., 2004). Similarly, Cheng, Sims, and Teegen (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 a positive influence for attitude towards illegally downloading movies. Therefore, the following hypothesis:

H6: There is a positive relationship between facilitating conditions and attitudes towards illegally downloading movies.



the individuals' attitude towards illegally downloading movies. 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 (Higgins & Makin, 2004; Higgin et al., 2006; Wolfe & Higgins, 2009). In this context, attitudes towards illegally downloading movies will be lower when the moral judgement is higher. Hence, the following hypothesis is proposed:

Methodology

Data Collection

The survey instrument was designed and distributed to a sample of internet users in a large university setting. The data collection was conducted over a four week period. The survey took place at various times in the day to achieve a broad cross-section of the population. It was highlighted to the respondents that participation in this study was voluntary and that respondents' anonymity was ensured due to the sensitivity of this study. The respondents were further reassured that their responses would not be traced back to them owing to the sensitivity of some questions in the survey. The demographic details requested were purely for statistical analysis. Respondents were given 3-4 minutes to complete the survey.

Survey Instrument

All of the scales, with the exception of the first section have been used in previous research. The first section of the survey instrument comprised three filter questions to differentiate internet users and non-internet users also to differentiate down-loaders and non-down-loaders.

The second section comprised a 5-item scale to measure habits (Limayem et al., 2004), a 4-item scale to measure self efficacy (Zhang et al., 2009), and a 3-item scale to measure social factors (Limayem et al., 2004).

The third section comprised a 6-item scale to measure affect (Limayem et al., 2004), a 5-item scale to measure facilitating conditions (Limayem et al., 2004), a 4-item scale to measure moral judgement (Tan, 2002), and a 4-item scale to measure attitudes towards illegally downloading movies (Plowman & Goode, 2009).

All items in second and third sections were measured on a 7-point Likert scale, with 1 representing 'strongly disagree' and 7 representing 'strongly agree'. The last section comprised a series of demographic items. Relevant issues were revised and amended from the feedback of reviewers before the survey instrument was distributed to the actual sample.

Samples

201 usable responses were used in the analysis after 32 responses were discarded due to incompleteness. The sample consisted of slightly more females (52.7%) than males (47.3%). The majority of respondents were aged 25 and below (84.6%) and 71.6 percent of respondents are down-loaders. There is no significant difference between down-loaders and non-down-loaders by using t-test paired samples.

Result and Analysis

An exploratory factor analysis was conducted on all variables in the study and it shows that there is no

overlapping among all variables, followed by a reliability check. As reflected, all scales exhibit a high degree of reliability with the Cronbach α above 0.80 (Nunnally, 1978).

Regression Analysis

Multiple regressions analysis was used to test hypotheses 1-6 in this study. The result of multiple regression had shown that "affect" ($\beta = 0.524$, adjusted $R^2 = 0.683$, Sig. = 0.000), "facilitating conditions" ($\beta = 0.210$, adjusted $R^2 = 0.683$, Sig. = 0.000) and "habitual behaviour" ($\beta = 0.187$, adjusted $R^2 = 0.683$, Sig. = 0.007) had significant positive relationship with "attitudes towards illegally downloading movies" ($F = 72.706$, $P < 0.01$, Adjusted $R^2 = 0.683$). Therefore, H1, H2 and H6 were accepted.

"Social factors" ($\beta = -0.007$, adjusted $R^2 = 0.683$, Sig. = 0.898), "moral judgement" ($\beta = -0.062$, adjusted $R^2 = 0.683$, Sig. = 0.215) and "self efficacy" ($\beta = 0.026$, adjusted $R^2 = 0.683$, Sig. = 0.642) do not have significant impact on "attitudes towards illegally downloading movies" ($F = 72.706$, $P < 0.01$, Adjusted $R^2 = 0.683$). Therefore, H3, H4 and H5 are rejected.

Discussion and Implication

The results show that "habitual behaviour", "affect" and "facilitating conditions" have positive impact on "attitudes towards illegally downloading movies". It is clear that down-loaders are addicted to download movies illegally and feel that downloading movies illegally is excited, wise and valuable. In addition, "facilitating conditions" also plays an important role to support down-loaders to download movies illegally. Therefore, authorities should have more aggressive action to catch the illegal down-loaders by tracking their IP address from Internet provider and harsher with the punishment (i.e. high fines or jails) to reduce the piracy rate in Australia (Goel & Nelson, 2009). In addition, authorities need to invoke guilt factor to change the minds of individuals who did digital piracy as suggested by Lysonski and Durvasula (2008). Thus, authorities should create an education campaign to show the negative impact of piracy to economy and movie industry (i.e. reduces available jobs in movie industry, lost couple of million of revenue in movie industry each year and reduces government's tax income) so down-loaders will have ethical concern and perceive the risks for illegally downloading movies. Besides, authorities also should take much further steps to create appropriate anti-piracy measure in Australia by creating internet gatekeeper to block all websites that have access to free movies. Thus, it will eliminate "facilitating conditions" in the new environment that does not support the act of illegally downloading movies.

Conversely, "moral judgement", "self efficacy" and "social factors" do not have a significant impact on "attitudes towards illegally downloading movies". These

findings are different from previous research (Blasi, 1980; Higgins & Makin, 2004; Higgins et al., 2006; Wolfe & Higgins, 2009) except Al-Rafee and Cronan (2006) which moral judgement has significant negative influence with attitudes towards digital piracy. Clearly, the result has shown that individuals who download movies illegally do not have ethical concern at all to consider their illegal act. Therefore, policy makers and marketers should create ad campaigns to increase awareness of anti-piracy measures in Australia and invoke guilt factor to the down-loaders. In addition, policy makers should collaborate with agencies that against piracy to catch all illegal down-loaders and penalize them with heavy punishments (i.e. high fines or jails). The result also indicates that down-loaders do not need to have high level of self efficacy to conduct illegally downloading movies. In addition, the result also concludes that families, colleagues and friends are not the groups of people who can influence down-loaders to do the act of illegally downloading movies. Based on neutralization theory, down-loaders already found out that the act of illegally downloading movies is a common practice in the society and the environment support this illegal act. Besides, individuals who do the act of illegally downloading movies are already having low self-control based on self-control theory. Therefore, it explains why “social factors” will not affect down-loaders to download movies illegally.

Managers, marketers and policy makers must collaborate to combat the movie piracy. Since the issue about downloading movie illegally is hard to handle and the piracy rate is always increasing, movie industry should use this concern to sell their movies through internet with reasonable price as another cheaper alternative. For instance, consumers can download movies from legal websites with cheaper price or through mobile phone (i.e. iPhone or Blackberry) in smaller size screen with cheaper price as well. In addition, managers, marketers and policy makers need to improve their technology securities to prevent hackers from downloading movies without paying (Ponte, 2008). This prevention would require creating new security system where the consumers will need serial number or key code in order to access and download movies illegally.

Conceptually, this study is expanding current digital piracy literature and developing a more robust measure by measuring the relationship between six antecedents (habitual behavior, affect, facilitating conditions, social factors, moral judgement and self efficacy) and attitudes towards illegally downloading movies based on Theory of Planned Behaviour (TPB).

Concluding Comments

It was found that “habitual behaviour”, “affect” and “facilitating conditions” are strong predictors of “attitudes towards illegally downloading movies”. Conversely,

“moral judgement”, “self efficacy” and “social factors” do not have significant influence on “attitudes towards illegally downloading movies”. Further exploration using qualitative approaches is needed to investigate the difference between down-loaders’ behaviour and non-down-loaders behaviour that may provide deeper insights. Other future directions can include a cross cultural comparison between a developed and developing country as to whether there are varying levels of cultural background and different level of technology development. The sample size for this study can also be extended to different demographic groups.

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