

ILLEGAL GAMES DOWNLOADERS VS ILLEGAL MOVIES DOWNLOADERS??!! BOTH ARE STILL CRIMINAL!!

Johan Liang, Curtin University, Australia
Ian Phau, Curtin University, Australia

ABSTRACT

This study examines the difference perspectives between illegal games downloaders and illegal movie downloaders based on personal factors and social factors (T-Test analysis). 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, Movie piracy, Neutralization theory, Theory of planned behaviour (TPB), Digital piracy

INTRODUCTION

Digital piracy is phenomenally widespread in games, music and movies (Karaganis, 2011; Kariithi, 2011; Masanell&Drane, 2010). 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 (Hyman, 2006; Karaganis, 2011). 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 (Das, 2008; Dejean, 2009; Hunt, 2003; Hyman, 2006; Ojeda-Zapata, 2004).

Movie industry is also in the same dilemma with the piracy issue. 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 (Motion Picture Association of America (MPAA), 2005; Walls, 2008). The revenue lost to movie piracy is hard to determine because most movie projects are already not profitable (Meissner, 2011; 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 (Lewis, 2007; MPAA, 2005). 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). As a result of digital movie piracy in Australia, Australian Federation Against Copyright Theft (AFACT) (2011) estimates that the Australian economy lost 6,100 full-time jobs in the movie industry and retailers in 2010. According to AFACT (2011), digital movie piracy created a loss of AUS\$ 46 million through illegal downloading activities in 2010. In 2005, LEK Consulting estimated that internet piracy accounted for \$92 million lost revenues for the film industry 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).

More alarmingly, consumers who commit digital piracy do not perceive the act as a crime (Smith &Telang, 2010; Meissner, 2011). In reality, digital piracy violates the copyright infringement law (Meissner, 2011) because it is stealing intellectual property rights. Downloading pirated digital products from the Internet without paying for them is morally incorrect and ethically no different from shoplifting (Blasi, 1980; Hyman, 2006). However, research has also 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” (Wall, 2006; Lysonski&Durvasula, 2008).

The decision to engage in the piracy of games, music, and movies from the internet can be related to a number of decision making factors including economic, legal, ethical network and internet users’ behaviour aspects (Coyle, Gould, Gupta, & Gupta, 2009; Meissner, 2011). 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, games 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). For instance in games piracy, 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-Witthoford& de Peuter, 2009). 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& Al-Rafee, 2008; Meissner, 2011; Pouwelse, Garbacki, Epema. & Sips, 2005; Terrell & Rosen, 2003).

RELEVANT LITERATURES AND UNDERPINNING THEORIES

There is no study have been done to compare a number of factors between illegal games downloaders and illegal movies downloaders in digital piracy especially in Western Australia as the research gaps for this study. Several 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 a positive relationship with

digital piracy. Using theory of Planned Behavior, Peace, Galleta, and Thong (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. By adopting the Triandis (1980) model, Limayem, Khalifa, and Chin (2004) found that various factors (social factors, habitual conduct, and facilitating conditions) except affects have significant influences upon both the intention to engage in digital piracy and actual digital piracy behavior. According to Shin, Gopal, Sanders, and Whinston (2004), sociological factors have more influence upon digital piracy than economic factors. Banerjee and Cronan (1998) also found that individual and situational (social) characteristics influence upon the intention to indulge in digital piracy. Hence, this study will use personal factors and social factors to measure the attitudes towards digital piracy.

Neutralization Theory

The neutralization theory (Sykes & Matza, 1957) has been used to explain a number of criminal behaviours such as digital piracy in the context of this study.

Existing literature found that digital piracy offenders do not view piracy as being illegal or unethical (Hinduja, 2006; Ingram & Hinduja, 2008; Morris & Higgins, 2009; 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 a “normal” act (Hinduja, 2006). Down-loaders normally give excuses such as “it is not my fault to download it for free”, “all my friends are doing it”, “the games or movies industry will not lose too much”, “the games developer or movie producers still make revenue from other sources”, or “I don’t have time to go to the retailers to purchase the games or

movies so I download it". Clearly these are good examples of the attributes of neutralization theory in digital piracy.

Claim of normalcy ("Everyone in the society is engaging in digital piracy"), The claim of relative acceptability ("Engaging in digital piracy will not murder anyone; people engage in much worse activity than this"), condemnation of the condemners ("how dare the games or movies industries claim that downloaders are not ethical and it is an illegal activity when they charge their products with high price"), appealing to higher loyalties ("Engaging in digital piracy will give benefit to the individuals in the society to have a chance to enjoy media (e.g. movies, games or music) entertainment"), and metaphor of the ledger ("All games or movies that I downloaded illegally were enjoyed by everyone in the society so I am a decent person") are all the attributes in neutralization theory that examine digital piracy behaviours.

Theory of Planned Behaviour

Theory of Planned Behaviour (TPB) (Ajzen, 1985, 1991) is a well-recognized model that can help understand and explain the behavioural aspects of unethical downloaders in digital piracy (Cronan and Al-Rafee, 2008; East, 1992; King, Dennis, & Wright, 2008; Peace et al., 2003; Shaw, Shiu, & Clarke, 2000; Wells, Ponting, & Peattie, 2011). According to Morton and Koufterous (2008), attitudes towards digital piracy, subjective norms and perceived level of control in individuals were the factors that led to the intention to commit online piracy. In order to gain an initial exploratory understanding of the digital piracy phenomenon based on movies downloaders' perspectives and games downloaders' perspectives, this paper uses the wide model view of rational choice (see Figure 1).

~ Insert Figure 1 about here ~

HYPOTHESES DEVELOPMENT

Habitual conduct

According to Triandis (1980), “habitual conduct is situation-behavior sequences that have become automatic and occur without self-instruction”. An individual’s behavior and attitudes are affected by habitual conduct because it is a function of an individuals’ past experience and the ability to accomplish specific tasks (Limayemet al., 2004). Previous findings found that it is easier to engage in movie piracy than games piracy as the size of movie files is smaller than games files (Karaganis, 2011). As such, the following hypothesis:

***H1:** There is a significant difference between movie downloaders and games downloaders in habitual conduct towards digital piracy.*

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”. The literature has shown evidence that there is a profound and substantial relationship between affect and attitude. In the context of this study, the items of affect such as wise, exciting, amusing and pleasant (Limayem et al., 2004), are likely to have a stronger positive influence upon movie downloaders than games downloaders cause it is easier to engage in movie piracy than games piracy (Karaganis, 2011). Thus, the following hypothesis:

H2: There is a significant difference between movie downloaders and games downloaders in affection towards digital piracy.

Moral Judgement

Moral judgement has been used extensively to predict ethical judgement and attitude (Al-Rafee & Cronan, 2006; Caruana, 2007; Mitchell & Chan, 2002). Studies in cognitive moral development have consistently affirmed a direct relationship between higher stage of moral judgement and higher occurrence of downloading pirated games or pirated movies from the Internet in the context of this study (Blasi, 1980; Tan, 2002). Several studies have also found that moral judgement has a strong connection with digital piracy (Blasi, 1980; Higgins & Makin, 2004; Higgins, Fell, & Wilson, 2006; Wolfe & Higgins, 2009), that is, the intention to indulge in digital piracy will decrease if the moral beliefs are stronger. Hence, the following hypothesis is proposed:

H3: There is a significant difference between movie downloaders and games downloaders in moral judgement towards digital piracy.

.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). Self-efficacy in this study refers to individuals’ judgement of their capability to engage in digital piracy behavior in various situations especially technological capabilities (Zhang, Smith, & McDowell, 2009). Individuals, who are involved in digital piracy behavior, should know how to access pirated digital files that can be downloaded for free by using software or direct download access to the Internet. In addition, an individual with high level of self-

efficacy will have small chance to get caught (Krueger & Dickson, 1994). Therefore, individuals who intend to engage in digital piracy should perceive themselves capable of doing the tasks aforementioned. Previous findings found that downloaders need to have more expertise to engage in games piracy than movie piracy (Karaganis, 2011). As such, the following hypothesis is proposed:

H4: There is a significant difference between movie downloaders and games downloaders in self-efficacy towards digital piracy.

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 the context of this study, 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. Social factors have a stronger influence upon movie downloaders than games downloaders because the demand of movie entertainments in the society is higher than the demand of games entertainment (Karaganis, 2011). As such, the following hypothesis proposed:

H5: There is a significant difference between movie downloaders and games downloaders in social factors towards digital piracy.

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. These include the

absence of penalties for illegal downloading, availability of pirated digital products (e.g. games, music, and movies) to download for free, and the absence of a code of ethics (Limayem et al., 2004; Triandis, 1980). 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. Therefore, facilitating conditions have a stronger influence upon movie downloaders than games downloaders because movie downloaders need less expertise to engage in digital piracy than games downloaders. As such, the following hypothesis:

H6: There is a significant difference between movie downloaders and games downloaders in facilitating condition towards digital piracy.

RESEARCH OBJECTIVES

Based on the hypotheses, the research objective of this study is to compare a number of factors between movie downloaders and games downloaders towards digital piracy by using t-test statistical analysis.

RESEARCH METHODOLOGY

Data Collection and Survey Instrument

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. All of the scales have been used in previous research. The questionnaire comprised a 5-item scale to measure habitual conduct (Limayem et al., 2004), a 4-item scale to measure self-efficacy (Zhang et al., 2009), a 3-item scale to measure social factors (Limayem et al., 2004), 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 attitude towards downloading pirated games (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'. Relevant issues were revised and amended from the feedback of reviewers before the survey instrument was distributed to the actual sample.

Samples

203 usable responses from movie downloaders and 206 usable responses from games downloaders were used in the analysis.

FINDING 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 0.70 (Nunnally, 1978).

T-Test Statistical Analysis

~ Insert Table 1 about here ~

T-test statistical analysis was used to test hypotheses 1-6 in this study. The results of t-test statistical analysis had shown that there is a significant difference between movies downloaders and games downloaders in "affect" ($t = 2.671, p = 0.008$), "social factors" ($t = 5.628, p = 0.000$), "facilitating condition" ($t = 4.356, p = 0.000$), "habitual conduct" ($t = 5.817, p = 0.000$), and "self-efficacy" ($t = 4.702, p = 0.000$) towards digital piracy.

Therefore, H1, H2, H4, H5, and H6 are accepted. Conversely, there is no significant difference between movie downloaders (mean = 4.422) and games downloaders (mean = 4.388) in “moral judgement” in digital piracy ($t = 0.284$, $p = 0.777$). Hence, H3 is rejected.

DISCUSSION AND IMPLICATIONS

The results show that movie downloaders (mean = 3.913) have stronger affection towards digital piracy than games downloaders (mean = 3.139). It is clear that movie downloaders have stronger feeling that engaging in digital piracy is wise, excited and valuable, compared to games downloaders' perspectives. Another finding indicates that movie downloaders (mean = 3.702) are easier to get influenced by social factors than games downloaders (mean = 2.798). It is advisable that social factors are one of important factors that affect movie downloaders to indulge in digital piracy, while social factors have less influence upon games downloaders. This finding also shows that movie downloaders share their pirated digital files with others, while, games downloaders utilize their own pirated digital files for private use. These findings validate the concept of the neutralisation theory, especially the appealing to higher loyalties and metaphor of ledger (treating an illegal activity as a normal activity).

The results confirm that movie downloaders (mean = 4.695) have better advantages on facilitating condition than games downloaders (mean = 4.222). It shows that it is easier for movie downloaders to engage in digital piracy than games downloaders because there is more access to download movies for free from the Internet compared to games. In addition, it also implies that movie downloaders are acquainted with individuals who have a high

level of self-efficacy to help them to indulge in digital piracy compared to games downloaders.

This finding indicates that movie downloaders (mean = 3.617) have a stronger habitual conduct towards digital piracy than games downloaders (mean = 2.640). This finding indicates that movie downloaders indulge in digital piracy more often than games downloaders. It also shows that movie downloaders react faster to indulge in digital piracy compared to games downloaders. Most of the sizes of games files are massive, especially for hard-core games (i.e. role playing games (RPG), action or thriller) (Lewis, 2007); therefore, the size of the files is one of the reasons why games downloaders need to think twice before indulging in digital piracy.

The results show that movie downloaders (mean = 4.934) have better self-efficacy towards digital piracy than games downloaders (mean = 4.204). This finding indicates that it is harder for games downloaders to indulge in digital piracy compared to movie downloaders because games downloaders need to have more expertise to crack the games and require technology capabilities to ensure the games work perfectly.

Conversely, movie downloaders and games downloaders have identical perceptions about moral judgement towards digital piracy. Both groups do not feel guilty to indulge in digital piracy. Based on the neutralisation theory, downloaders do not feel guilty as the society treats the downloading as a 'normal' activity.

Therefore, policymakers and marketers should create campaigns to increase the public's awareness of anti-piracy measures and invoke guilt to illegal downloaders. In addition, 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). Authorities also should create internet gatekeeper to block all illegal websites that provide free pirated games or movies.

CONCLUDING COMMENTS

It was found that movie downloaders have stronger influence upon digital piracy in “habitual conduct”, “self-efficacy”, “affect”, “moral judgement”, and “facilitating conditions” compared to games downloaders. In the other hand, only “moral judgement” has no significant difference between movie downloaders and games downloaders. Further exploration using qualitative approaches is needed to investigate more in-depth of others factors that may influence upon the individuals to indulge in digital piracy to 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. In addition, it is possible that the respondents are under-reporting their actual downloading behaviour due to the sensitivity of the topic. Each respondent also has different perspectives on the definition of downloading; therefore, there is a need to clarify the definition of downloading.

REFERENCES

Australian Federation Against Copyright Theft (AFACT). (2007). *Internet piracy*. Retrieved November 4 2009 from AFACT website: http://www.afact.org.au/moviethieves_internet.html

Australian Federation Against Copyright Theft (AFACT). (2011). *Economic consequences of movie piracy*. Retrieved November 4 2011 from AFACT website: http://www.afact.org.au/assets/research/IPSOS_Economic_Consequences_of_Movie_Piracy_-_Australia.pdf

Al-Rafee, S. & Cronan, T.P. (2006). Digital piracy: Factors that influence attitude towards behavior. *Journal of Business Ethics*, 63, 237-259.

Azjen, I. (1985). *From intentions to actions: A theory of planned behavior*. Action-Control: From Cognition to Behavior. Heidelberg, Springer.

Azjen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179-201.

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and Health*, 13, 623-649.

Banerjee, D., & Cronan, T.P. (1998). Modelling IT ethics: A study in situational ethics. *MIS Quarterly*, 22(1), 31-60.

Blasi, A. (1980). Bridging moral cognition and moral action: A critical review of the literature. *Psychological Bulletin*, 88(1), 1-45.

Caruana, R. (2007). Morality and consumption: Towards a multidisciplinary perspective. *Journal of Marketing Management*, 23(3-4), 207-225.

Cellan-Jones, R. (2009). *File-sharers' TV tastes revealed*. Retrieved November 4, 2009, from <http://news.bbc.co.uk/2/hi/technology/8224869.stm/>

Chen, Y.C., Shang, R.A., & Lin, A.K. (2008). The intention to download music files in a P2P environment: Consumption value, fashion, and ethical decision perspectives. *Electronic Commerce Research and Applications*, 7(4), 411-422.

Cheng, H.K., Sims, R.R., & Teegen, H. (1997). To purchase or pirate software: An empirical study. *Journal Management Information System*, 13(4), 49-60.

Coyle, J.R., Gould, S.J., Gupta, P., & Gupta, R. (2009). To buy or pirate: The matrix of music consumers' acquisition-mode decision-making. *Journal of Business Research*, 62(10), 1031.

Cronan, T.P., & Al-Rafee, S. (2008). Factors that influence the intention to pirate software and media. *Journal of Business Ethics*, 78, 527-545.

Das, S. (2008). Timing movie release on the internet in the context of piracy. *Journal of Organizational Computing and Electronic Commerce*, 18(4), 307.

- Dejean, S. (2009). What can we learn from empirical studies about piracy? *CESifo Economic Studies*, 55(2), 326-352.
- Dyer-Witherford, N., & de Peuter, G. (2009). *Empire@Play: Virtual games and global capitalism. CTheory.Net.*
- East, R. (1992). The effect of experience on the decision making of expert and novice buyers. *Journal of Marketing Management*, 8, 167–176.
- Higgins, G.E., & Makin, D.A. (2004). Does social learning theory condition the effects of low self-control on college students' software piracy? *Journal of Economic Crime Management*, 2(2), 1-22.
- Higgins, G.E., Fell, B.D., & Wilson, A.L. (2006). Digital piracy: Assessing the contributions of an integrated self-control theory and social learning theory using structural equation modeling. *Criminal Justice Studies*, 19, 3-22.
- Hinduja, S. (2006). Neutralization theory and online software piracy: An empirical analysis. *Ethics and Information Technology*, 9(3), 187-204.
- Hunt, B. (2003). *Companies warn of music piracy risk.* Financial Times.
- Hyman, P. (2006). State of the industry: Video game piracy. *Game Developer*, December 1, 13-18.
- Ingram, J.R., & Hinduja, S. (2008). Neutralizing music piracy: An empirical examination. *Deviant Behavior*, 29, 334-366.
- Goel, R.K., & Nelson, M.A. (2009). Determinants of software piracy: Economics, institutions, and technology. *Journal of Technology Transfer*, 34(6), 637-658.
- Karaganis, J. (2011). *Media piracy in emerging economies.* Retrieved October 23 2011 from SSRN website: <http://piracy.ssrc.org>
- Kariithi, N.K. (2011). Is the devil in the data? A literature review of piracy around the world. *The Journal of World Intellectual Property*, 14(2), 133–154.
- King, T., Dennis, C., & Wright, L.T. (2008). Myopia, customer returns and the theory of planned behavior. *Journal of Marketing Management*, 24(1–2), 185–203.
- Krueger, N.Jr., & Dickson, P.R. (1994). How believing in ourselves increases risk taking: Perceived self-efficacy and opportunity recognition. *Decision Science*, 25(3), 385-400.
- Lewis, J. (2007). If you can't protect what you own, you don't own anything: Piracy, privacy, and public relations in 21st century Hollywood. *Cinema Journal*, 46(2), 145-150.

- Limayem, M., Khalifa, M., & Chin, W.W. (2004). Factors motivating software piracy: A longitudinal study. *IEEE Transactions on Engineering Management*, 51(4), 414-425.
- Lysonski, S., & Durvasula, S. (2008). Digital piracy of MP3s: Consumer and ethical predispositions. *Journal of Consumer Marketing*, 25(3), 167-78.
- Masanell, R.C., & Drane, A.H. (2010). Competing against online sharing. *Management Decision*, 48(8), 1247-60.
- Meissner, N. (2011). Forced pirates and the ethics of digital film. *Journal of Information, Communication & Ethics in Society*, 9(3), 195-205.
- Mitchell, V.W., & Chan, J.K. (2002). Investigating UK consumers' unethical attitudes and behaviours. *Journal of Marketing Management*, 18, 5-26.
- Morris, R., & Higgins, G. (2009). Neutralizing potential and self-reported digital piracy: A multitheoretical exploration among college undergraduates. *Criminal Justice Review*, 34(2), 173.
- Morton, N., & Koufteros, X. (2008). Intention to commit online music piracy and its antecedents: An empirical investigation. *Structural Equation Modeling*, 15(3), 491.
- MPAA (Motion Picture Association of America). (2005). *The Cost of Movie Piracy*. Retrieved June 5 2010 from MPAA website: <http://austg.com/include/downloads/PirateProfile.pdf>
- Nunnally, J. (1978). *Psychometric Theory*, 2nd edition. New York: McGraw-Hill.
- Ojeda-Zapata, J. (2004). Computer game makers lose increasing number of sales to online piracy. *Knight Ridder Tribune Business News*, 5 February, 1.
- Peace, A., Galleta, D., & Thong, J. (2003). Software piracy in the workplace: A model and empirical test. *Journal of Management Information Systems*, 20(1), 153-177.
- Plowman, S., & Goode, S. (2009). Factors affecting the intention to download music: Quality perceptions and downloading intensity. *The Journal of Computer Information Systems*, 49(4), 84-97.
- Pouwelse, J., Garbacki, P., Epema, D., & Sips, H. (2005). The bittorrent p2p file-sharing system: Measurements and analysis. *Lecture Notes in Computer Science*, 3640, 205-216.
- Siwek, S.E. (2006). *The true cost of motion picture piracy to the U.S. economy*. Institute for Policy Innovation (IPI). Policy Report 186. Retrieved September 11 2009 from IPI website: <http://www.ipi.org/IPI/IPIPublications.nsf/PublicationLookupFullTextPDF>
- Shin, S.K., Gopal, R.D., Sanders, G.L., & Whinston, A.B. (2004). Global software piracy revisited. *Communication of the ACM*, 47, 103-107.

Shaw, D., Shiu, E., & Clarke, I. (2000). The contribution of ethical obligation and self-identity to the theory of planned behavior: An explanation of ethical consumers. *Journal of Marketing Management*, 16, 879–894.

Smith, M.D., & Telang, R. (2010). Piracy or promotion? The impact of broadband internet penetration on DVD sales. *Information Economics and Policy*, 22(5), 289–298.

Sykes, G., & Matza, D. (1957). Techniques of neutralization: A theory of delinquency. *American Sociological Review*, 22, 664–670.

Tan, B. (2002). Understanding consumer ethical decision making with respect to purchase of pirated software. *The Journal of Consumer Marketing*, 19(2/3), 96.

Terrell, K., & Rosen, S. (2003). A nation of pirates panicked by digital plunder, the entertainment industry fights back. *U.S. News and World Report*, 135(1), 40–42.

Triandis, C.H. (1980). Values, attitudes and interpersonal behavior. In Proc. Nebraska Symp. Motivation, 1979: *Beliefs, Attitudes and Values* (pp. 159–295). NE: Lincoln.

Wall, D.S. (2006). Surveillant Internet technologies and the growth in information capitalism: Spams and public trust in the information society. In K. Haggerty & R. Ericson (Eds.), *The New Politics of Surveillance and Visibility* (pp. 340–362). Toronto, Canada: University of Toronto Press.

Walls, W. (2008). Cross-country analysis of movie piracy. *Applied Economics*, 40(5), 625.

Wells, V.K., Ponting, C.A., & Peattie, K. (2011). Behaviour and climate change: Consumer perceptions of responsibility. *Journal of Marketing Management*, 27(7–8), 808–833.

Wolfe, S., & Higgins, G. (2009). Explaining deviant peer associations: An examination of low self-control, ethical predispositions, definitions, and digital piracy. *Western Criminology Review*, 10(1), 43–55.

Zhang, L., Smith, W., & McDowell, W.C. (2009). Examining digital piracy: Self-control, punishment, and self-efficacy. *Information Resources Management Journal*, 22(1), 24–44.

TABLES AND FIGURES

Table 1. T-tests of group differences in means between movies downloaders and games downloaders					
Construct	Group	Mean	SD	t-value	P-value
Affect	Movie downloaders	3.913	1.144	2.671	0.008**
	Games downloaders	3.139	1.088		
Social factor	Movie downloaders	3.702	1.575	5.628	0.000**
	Games downloaders	2.798	1.651		
Facilitating condition	Movie downloaders	4.695	1.179	4.356	0.000**
	Games downloaders	4.222	1.006		
Habitual conduct	Movie downloaders	3.617	1.690	5.817	0.000**
	Games downloaders	2.640	1.684		
Moral judgement	Movie downloaders	4.422	1.241	0.284	0.777
	Games downloaders	4.388	1.183		
Self-efficacy	Movie downloaders	4.934	1.452	4.702	0.000**
	Games downloaders	4.204	1.661		
** Significant at $P < 0.01$					

Fig. 1. Theoretical framework (research model)