RESEARCH NOTE

Another Look at Demand-Side Digital Piracy

Andrea L. Santiago
Asian Institute of Management
drginnysantiago@gmail.com

Abstract: Technological improvements made it easier for individuals to download files for personal use. From one end, the clear message is that piracy is wrong and attention should be drawn to crushing piracy with education and disincentives. On the other end of the spectrum is the view that anything that can be accessed online is free. This paper encapsulates the major discussions on digital piracy thus far. It also looks at alternative ways to approach the debate so that more creative solutions can be developed without compromising on the basic principle that the creator of an idea or product deserves to enjoy the fruits of his or her labor.

   In its simplest form, digital piracy refers to obtaining without the explicit consent of the intellectual property owner, digital content for sale or personal use (Wagner & Sanders, 2001). There are two sides of digital piracy. Demand-side digital piracy refers to the purchase of illegal copies, or the personal use of unpurchased copies, of digital content. Supply-side digital piracy enters the realm of counterfeiting with actual intent to earn profits while defrauding rightful owners of what is due them. The scope of this paper is limited to demand-side digital piracy due to the overwhelming breadth and complexity of the subject.

JEL classification: K42, M10, O30

The concern about piracy is not new. It dates to the mid 1970's when computer software were given copyright protection (Blanke, 2004; Logsdon, Thompson, & Reid, 1994). However, the boom in digital technology has made illegal copying of books, music, movies, and software much simpler. The simplicity encourages piracy behavior (Guy-Hart, 2001; Spinello, 2005). For one, individuals have greater access to computers and even if some sectors of society do not have such access, pirated digital content can still find their way to them. Previously, analog copies of data were inferior in quality and the inferior quality served as a deterrent to piracy. However, with digital copies, users no longer see the difference in quality between an original and a pirated copy (Grabosky & Smith, 2001; Spinello, 2005). Moreover, the ground for piracy is made more fertile with increased bandwidth of digital subscriber line (DSL) and cable modems that have facilitated the rapid downloads of large files. Khang, Ki, Park, and Baek (2012) opined that the high piracy rate in South Korea is actually attributed to the high-speed internet connections that make it easy to download digital content. When these developments in technology delivery is coupled with affordable digital recording devices and smaller discs to store downloaded data, then piracy becomes a greater temptation (Guy-Hart, 2001; Samoriski, 2002; World Intellectual Property Office [WIPO], 2002).

The general impression is that anything online is free. If digital content is located in a public domain, then it is assumed that it can be used for public consumption (WIPO, 2002). Consequently, there are those who believe that there is implicit authority granted and is thus not a moral issue. There is a general notion that free digital use is a socially accepted activity and consequently copyright laws should be revisited (Spinello, 2005). Besides, there have been arguments that viral transmittal of digital content has actually popularized creators, authors, artists, and the like (Jardin, as cited in Easley, 2005). Consequently, it provides some advantages.

The high concern for piracy can only mean that piracy is rampant. Piracy is a global concern with Asia eyed as the main trouble spots. In Thailand and China, it is said that 90–95% of software used are counterfeit (Douglas, Cronan, & Behel, 2007; Flynn, 2005; Kini, Ramakrishna, & Vijayaraman, 2004). Thus, it is easy to see why the effects of digital piracy were first felt by software companies like Microsoft, which suffered heavy losses with pirated versions of its windows XP. It was discovered that not only were licensed software copies being passed around, but copies were made and distributed at low prices, as well. The United States Information Infrastructure Task Force (cited in Grabosky & Smith, 2001) reported that losses could have reached up to US$17 billion though more conservative figures were presented by Meyer and Underwood as well as Ryan (both cited in Grabosky & Smith) for particular years.

Piracy quickly moved into the music industry with the rise of peer-to-peer (P2P) file sharing systems like Napster (Easley, 2005; WIPO, 2002). Guy-Hart (2001) posited that P2P is the largest type of piracy taken up mostly by MPEG-1 Audio Layer-3 (MP3) files transferred via P2P. In the United States, D'Astous, Colbert, and Montpetit (2005) cited a survey that show 27% of Americans admitting they had regularly downloaded music and video. When pooled with other nations, the effects are devastating. WIPO (2002, p. 55) estimated that 99% of all files transferred using this medium are unauthorized. MUSO, a provider of anti-piracy data, reported that there were 57 billion visits to pirate streaming sites in 2015 (as cited by Ernesto, 2016).

Downloading music titles as well as copying original CDs that are then sold, compounds the situation. In the United States alone, Green (2005) reported that enforcement agencies were able to seize 1.2 million CDs in 2005. However, this is only 10% of the estimated pirated CDs in the country, many of which look like the originals. The potential for music piracy becomes even greater and is expected to bring bigger opportunity losses with the combined technological development of mobile phones (Slade, 2005).

The movie industry was the last hit by digital piracy attributed to the sizable files that had to be transmitted through slow channels. Further, the downloaded files required large digital storage space. However, with the advancements in technology earlier mentioned, initial deterrents have been overcome.

According to Samoriski (2002), there are various ways of illegally copying and releasing movies including the use of formats created by the motion pictures experts group (MPEG) that make excellent replicas of the original. In China, 90% of the DVDs sold are either fake or stolen, allegedly costing film studios about $300 million a year in lost revenues (Hernandez, 2005). The situation is so rampant that Eisner, a former Disney chief executive, (cited in "A strong industry can beat piracy," 2006) believed only a strong movie industry in China can beat piracy. The National Copyright Administration in China has tried to abate piracy. In April 2016, 14 million pirated or illegal publications, including audio and visual products, were destroyed, just days prior to the celebration of World Intellectual Property Day (Xinhua, 2016).

There have been attempts to address the issue of piracy. WIPO has worked towards securing the commitment of nations to uphold international treaties on copyright and related rights. It is hoped that with the enactment of intellectual property laws, piracy may be curtailed. Indeed, where laws have been enforced, there appears to be a reduction in pirating activities (Andres, 2006a, 2006b). However, in many parts of the world, especially in Asia, pirating and the distribution of pirated digital content are still prevalent (Chiou, Huang, & Lee, 2005) so much so that the sale of pirated software can resume several hours after a raid ("Microsoft intensifies worldwide campaign," 2001; Swinyard, Rinne, & Keng Kau, 1990).

Understanding Piracy Behavior

Researchers have tried to understand the piracy phenomenon with hopes of presenting recommendations that can curtail piracy behavior. While there was a focus on software piracy, referred to as softlifting (Athey & Zmud as cited in Simpson, Banerjee, & Simpson, 1994), it is likely that many of the insights generated for softlifting behavior may also apply to the music and movie industry.

A review of previous research shows that studies were conducted among high school students (Chiou et al., 2005), undergraduate students (Christensen & Eining, 1991; D'Astous et al., 2005; Cronan & Al-Rafee, 2008; Glass & Wood, 1996; Hinduja, 2003; Jeong, Zhao, & Khouja, 2012; Kini, Ramakrishna, & Vijayaraman, 2003; Leurkittikul, 1994; Seale, 2002; Siegfried, 2004; Simpson et al., 1994; Swinyard et al., 1990; Tang & Farn, 2005; Upshaw & Babin, 2010; Wagner & Sanders, 2001; Wang, Zhang, Zang, & Ouyang, 2005; Yoon, 2011), with a few studies including graduate students (Al-Rafee, 2002; Logsdon et al., 1994; Sims, Cheng, & Teegen, 1996; Solomon & O'Brien, 1991) and professors with business executives (Shim & Taylor, 1991; Taylor & Shim, 1993). The sample base of Gupta, Gould, and Pola (2004) reached a wider base of computer users who responded to an internet survey posted in the web that was addressed to USENET newsgroup. Borja and Dieringer (2016) believed that those most comfortable with technology, purportedly the millennial generation who are considered digital natives, are more likely to engage in piracy behavior.

Researchers also explored piracy behavior in European nations (Andres, 2006a; Culiberg, Koklic, Vida, & Bajde, 2016), American population (Christensen & Eining, 1991; Cronan & Al-Rafee, 2008; Gupta et al., 2004; Hinduja, 2003; Logsdon et al., 1994; Seale, 2002; Siegfried, 2004; Simpson et al., 1994: Solomon & O'Brien, 1991; Taylor & Shim, 1993; Upshaw & Babin, 2010), and those that compared Americans with other nationalities (Kini et al., 2004; Leurkittikul, 1994; Swinyard et al., 1990), as well as studying their own (Ang, Cheng, Lim, & Tambyah, 2001; Chiou et al., 2005; Kini, Ramakrishna, & Vijayaraman, 2003; D'Astous et al., 2005; Tang & Farn, 2005; Wang et al., 2005).

There are researchers who have taken the ethical approach (Hinduja, 2003; Logsdon et al., 1994; Simpson et al., 1994; Tan, 2002; Taylor & Shim, 1993), suggesting certain factors as forming part of an ethical decision making process, including possibly religion (Wagner & Sanders, 2001). Some researchers have gone to the extent of attributing cultural differences as possible factors explaining piracy behavior (Husted, 2000; Swinyard et al., 1990). There were studies that used Kohlberg's stages of moral development (Hill, 2007; Kini et al., 2003, 2004; King & Thatcher, 2014), Rest's defining issues test (Kini et al., 2003, 2004; Logsdon et al., 1994), Fishbein's and Ajzen's theory of reasoned action (Christensen & Eining, 2001), Ajzen's theory of planned behavior (Cronan & Al-Rafee, 2008; D'Astous et al., 2005; Yoon, 2011), a combination of these (Al-Rafee, 2002; Seale, 2002; Leurkittikul, 1994), as well as an issue-risk-judgment model presented by Tan (2002). Always there was a need to explain actual behavior from attitudes, intent, and culture as done by Eining and Christensen (1991) as well as Wee, Tan, and Cheok (1995). Then there is the equity theory perspective taken by Glass and Wood (1996) that explores the fairness in the exchange as influencing piracy behavior. This theory was also used by Behel (1998).

So far, what research has unearthed is that often, piracy is not commonly considered unethical (Cronan & Al-Rafee, 2008; Kwong, Yau, Lee, Sin, & Tse, 2003) and where it is considered unethical, it bears no impact on illegal activity (Simpson et al., 1994). This has prompted Balestrino (2008) to posit that while piracy may be considered a thievery, it is not a crime. Logsdon et al. (1994) explained that this is because piracy is considered a low moral intensity issue or something of little importance.

In the Asian context, Swinyard et al. (1990) contended that the piracy act may be illegal but may not be immoral. Piracy is a widely tolerated behavior with no stigma attached to it (Balestrino, 2008; Gupta et al., 2004; Guy-Hart, 2001; Wang et al., 2005). Singaporeans, whose government is recognized for their strict anti-piracy enforcement laws, would not think that counterfeit buyers had low morals, even if they themselves would not do it themselves (Ang et al., 2001). When it comes to digital piracy however, a report by China News Asia (cited in Cuellar, 2014) revealed that 74% of Singapore teenagers admitted to piracy activities. D'Astous et al. (2005, p. 307) postulated that in the music sphere, it is a tough job to convince the pirating consumer that it is morally

wrong when other organizations provide differing messages.

There are varied rationalizations for purchasing pirated digital content. Some are lame coming from ill-informed consumers who cannot fathom the adverse effects of their actions. Guy-Hart (2001) quoted respondents who claim "there is no copyright notice," "it is just a couple of files," "I'm not charging," "am promoting artist by sharing music," and "it's not hurting anybody." Others argue on the basis of "fair use" (Siegfried, 2004). If it is in the Internet and thus on public domain, then anyone with Internet access is allowed to take advantage. Still others claim that "everyone does it", suggesting the great influence of peers and even elders in the piracy behavior (Albers-Miller, 1999; Tang & Farn, 2005). It would appear that the relationship between downloading, sharing, and purchasing unauthorized digital content and piracy is abstract to most. How many can really tell the difference between a CD, video compact disc (VCD), and DVD as well as owning its contents? Yet it is the difference that leads to piracy (Yar, 2005).

WIPO (2002) presented study results that show there are those who are concerned more with the immediate accessibility of digital content. The new generation is used to instantaneous gratification. In Malaysia, pirated copies of movies are available within a week from the release of movies in theaters (Wang, 2003).

There is, of course, the argument of price. CDs and DVDs are perceived to be too expensive compared to the benefits one derives from it (Guy-Hart, 2001; Kwong et al., 2003). For instance in Taiwan, the price of a pirated music CD is only 15% of the selling price of an original copy (Chiou et al., 2005). However, Jacobs, Heuvelman, Tan, and Peters (2012) concluded that the lower prices of pirated digital content have lesser influence than novelty compulsion.

There are also contentions that piracy hurts only a few companies. The producing companies are quite distant from the consumer and are perceived to have the financial capacity to withstand end-user piracy (Logsdon et al., 1994; Siegfried, 2004). Besides, users of pirated digital content believe there is very little risk involved in piracy since only a miniscule number get caught, much less prosecuted (Al-Rafee, 2002).

Jeong et al. (2012) explored prosecution risk together with six other dimensions of risk, namely performance, time, financial, social, psychological, and privacy. While the researchers focused only on music piracy, their study revealed that the lack of moral awareness explained better the propensity to illegally download music. They suggested that instead of spending resources in piracy enforcement, organizations should invest in education awareness campaigns.

Are we really cheaters? Callahan (2004) posited that members of society are subject to new pressures to succeed, are receiving bigger rewards for winning, are subject to greater temptation, and are experiencing the trickle-down effects of corruption. This is supported by Crittenden, Hanna, and Peterson (2009) who feared that cheating has now become a norm. In music, pirates are more likely found in the vulnerable teenage population (Easley, 2005). Yet Callahan (2004) revealed that the cheating mentality is not addressed even in the educational system. For instance, he cited a study, where cheating is not treated sternly as evidenced by the lack of pursuit of cases against students. It has been said that it may not be worth the trouble it causes, not to mention the countersuits by parents. It is no wonder that almost all of the studies with students as respondent shosw a high tolerance for piracy behavior.

Sims et al. (1996) pictured a software pirate to be a male professional, as did Chiang and Assane (2008), Kwong et al. (2003), Seale (2002), as well as Tang and Farn (2005). These are males, who have gained familiarity across a wide range of computer software. The pirate may also be more present in Asian countries, perhaps due to lack of intellectual protection laws, but partly explained by the nature of Asians to share their work, rather than making individual attributions. Asians also have an inclination to follow utilitarian ethics and argue that more are benefited from shared resources (Swinyard et al., 1990). Husted (2000), however, concluded that the higher piracy rate in Asia may be attributable to the lower level of economic development, the larger middle class, and the collective nature of society. This is used to justify the acquisition of digital content at the lowest price possible that is openly shared to friends and family. Swinyard et al. (1990) disclosed the same findings. Yet, the study of Ang et al. (2001) revealed that the attitude towards piracy is the same regardless of education, age, and gender. But, more importantly, the ability to purchase illegal copies of digital content has nothing to do at all with paying capacity (Solomon & O'Brien, 1991), meaning even if one could afford to

purchase the original copy one still opts to purchase a pirated copy.

Responses to Digital Piracy

There are two extreme responses to digital piracy. The first is to go with the flow by allowing free access to digital content and software through Open Access or Open Source. For researchers, this would mean archiving research papers in a centralized digital repository rather than relying on publisher, so that users need not pay publishers to access information (Armstrong, 2015; Beverungena, Böhm, & Land, 2013). For software users, this would mean gaining free access to "coded knowledge" to "technical infrastructures, network technologies, computer architectures, system software, and generic drug" (Ahmed, 2007, p. 339). Pykäläinen, Yang, and Fang (2009) claimed that the open source strategy had alleviated piracy in China.

The problem with open access and source is that it does not make authors and creators, responsible and accountable for information and codes that are shared. It also circumvents the very issue of protecting ownership rights. Thus, the hardline response to piracy is to stamp it out. Yet, half a century later, digital piracy has not abated. In fact, technological advancements have made piracy even more rampant. Danaher, Smith, and Telang (2015) acceded that anti-piracy laws works in an ideal situation where pirates are identified and sanctioned on a timely basis. Thus, resolving piracy must be approached in different ways simultaneously.

Following the theory of reasoned action and the theory of planned behavior, it has been proven that the attitude towards piracy, as well as past experience with piracy behavior, results in continued support for pirated goods (Cronan & Al-Rafee, 2008; D'Astous et al., 2005; Seale, 2002). Conversely, students who believe that piracy is inappropriate will be less likely to engage in piracy behavior (Christensen & Eining, 1991; Gupta et al., 2004). Thus, some recommendations to address internet piracy calls for raising consumer awareness preferably at an early age (Callahan, 2004; Eining & Christensen, 1991; Wee et al., 1995; Wang et al., 2005; WIPO, 2002). It has been suggested that advertising campaigns be used for this purpose (Gupta et al., 2004; Hill, 2007; Wee et al., 1995), although the appropriate endorsers should be selected since rich

actors, musicians, and producers may send the wrong signal (Ang et al., 2001).

Educators have also been encouraged to be more proactive about stopping piracy by not simply teaching ethics but actually condemning and penalizing piracy activities at least when done in the school environment (Chiou et al., 2005; Christensen & Eining, 1991; Haworth, 1997; Siegfried, 2004; Sims et al., 1996; Simpson et al., 1994). The fear of lawsuits, more prevalent in America, can serve as a deterrent (Galuszka, 2004), although there was a 50% increase in P2P users barely a year after lawsuits were filed (Fivelsdal, 2005).

There have also been suggestions to attack the problem from the supplier side. Simpson et al. (1994) have recommended improved distribution and marketing strategies to make software readily available to the consumer. Fight technology with technology is another option. Samoriski (2002) suggested considering digital watermarks and encryption although the Anti-Piracy Trade Association (cited in Sims et al., 1996; Swinyard et al., 1990) has not seen success in similar tactics they have used. Moreover, the study of Sinha, Machado, and Sellman (2010) revealed that that the absence of digital watermarks resulted in the conversion of some hardcore pirates into paying customers.

Kelly, Smith, and Wonacott (2005) suggested reviewing the price dimension. For instance, CDs can be repackaged for the street market and sold at prices just above the price of a pirated copy, as what was done by Time Warner in China. The other option is to go the way of Apple that began selling music via iTunes for US$0.99 per song (Easley, 2005; Spinello, 2005). However, Upshaw and Babin (2010, p. 10) could not ascertain from their studies whether iTunes converted pirates to purchasers or whether it simply cannibalized the sales of other online stores.

Fivelsdal (2005) suggested the distribution of music through an application service provider, whereby paying customers may access downloaded files but will not have complete compact discs (CDs) to reproduce. It is akin to the strategy of On-line Music (Leyshon, Webb, French, Thrift, & Crewe, 2005). There is also the experiment between well-known Napster and the University of Rochester as well as Penn State University (Galuszka, 2004) that aimed to curb piracy by making available song titles for free and then tucking the price into the IT fees of students. MusicBroker also

attempted to address the problem of piracy by bridging internet service providers and music artists (Leyshon et al., 2005). This business model explains the merger of American Online and Time Warner to create the world's largest media conglomerate as they combined the resources and capabilities of both content providers as well as communications and cable technology (WIPO, 2002, p. 27).

Social Inclusiveness

It has been argued that copyright laws tend to promote monopolistic behavior that essentially makes creative work more expensive than it should be (Waldfogel, 2012). Initially, higher revenues were meant to incentivize the creation of new work and to recoup costs associated with the development and production of a good. However, with more advanced technology, it is perceived that the cost to produce and distribute is greatly diminished. If this were the case, then the monopolistic grant decreases social welfare.

Fredriksson (2012) forwarded that piracy is a natural consequence of wealth imbalance where those who are of great power are able to take advantage of their position by protecting their turf, reminiscent of the colonial times. In this scenario, countries that are marked by widespread poverty tend to create structures to enjoy cultural dimensions experienced in developed countries. Fredriksson cited the case of India where piracy is used as means to become more inclusive. Notwithstanding, piracy is not limited to, but may be more prevalent in, developing countries.

Taken into context of social welfare, it is argued that pirates play a role in balancing the benefits of modernization while rewarding the creator of ideas, goods, and services. It is claimed that while pirates actually temper monopolistic tendencies as charging high prices tend to attract greater piracy, the shift of price-sensitive consumers from the total consumer base, allows legitimate retailers to charge their true clientele at higher rates (Geng & Lee, 2013; Kiema, 2008). Thus, instead of trying to compete on the basis of price, legitimate retailers may focus on providing total service to those willing to pay. Viewed this way, the needs of both types of consumers are met.

De Castro, Balkin, and Shepherd (2008) took a more pragmatic view. If it costs more to police piracy behavior as compared to the losses that is created by such piracy, then it makes more economic sense to reap the benefits of the positive outfall of piracy. The greater reach of piracy resulting from network effects may enlarge the potential market base thus leading to improvement in social welfare (Balestrino, 2008; Belleflamme & Peitz, 2010).

Viewing Piracy Through the Lens of Consumer Misbehavior

Developing solutions for piracy calls for even a wider view, that of looking at counterfeiting trade. Clearly, digital piracy is simply another form of counterfeiting. Downloading unlicensed software, music, and video as well as producing copies thereof is tantamount to manufacturing and distributing fake goods, only less financial investment is involved. Reviewing studies on counterfeit behavior may thus provide insight to digital piracy.

According to the World Customs Organization (cited in Robertson, 2005), between 5–7% or, as much as US$512 billion can be attributed to counterfeit goods. However, in 2013, Organisation for Economic Co-operation and Development (OECD, 2016) reported global trade in fake goods was estimated at $461 billion. The other viewpoint though is that revenues simply shift away from foreign shores in favor of locally owned counterfeit manufacturers and vendors (Globerman, 1988).

When one talks about counterfeiting, this invariably leads one to the shores of China where many companies have set up manufacturing facilities (Mertha, 2005; Swike, Thompson, & Vasquez, 2008). Despite intellectual property laws enacted as a precondition to participate in the World Trade Organization (Hill, 2007), counterfeiting is said to be so well-entrenched in China that millions of jobs are dependent on its trade (Heim, 2006). In 2013, 63.2% of fake goods originated from China (OECD, 2016). There have been challenges to stamp out counterfeiting in the country, even as agreements regarding the protection of intellectual property have been signed (Lai & Zalchkowsky, 1999). One of this is attributed to the Chinese culture of sharing and considering imitation as the best form of flattery (Douglas et al., 2007; Robertson, 2005).

The problems of counterfeiting have also attracted the attention of researchers. Like with digital piracy, there is an ethical consideration involved (Nill &

Shultz, 1996). The study of Cho, Yoo, and Johnson (2005) revealed that participants appeared indifferent to counterfeiting. They concluded, as did Bloch, Bush, and Campbell (1993), that there was greater concern over price since only well-branded merchandises are counterfeited. It was concluded that counterfeit goods fulfilled the same purpose as the original product but at an attractive price (Field, 2000; Grossman & Shapiro, 1978; Tom, Garibaldi, Zeng, & Pilcher, 1998; Wee et al., 1995). It is even more attractive for digital content since the investment required to produce multiple copies is considerably lower than manufacturing counterfeit durable goods. Moreover, Bloch et al. (1993) observed that the demand for counterfeit products is greater where performance risks are low. Thus, again translating into digital piracy, it becomes more obvious that support for digital piracy is greater because of the low risks of getting caught and being punished for it.

The purchase of illicit goods is categorized by marketing researchers as an example of consumer misbehavior (Albers-Miller, 1999; Fullerton, 1997). As with other types of misbehavior, such as switching tags, shoplifting, and returning used items, the consumers are seen to take their behavior lightly especially when the chance of getting caught is greatly reduced (Albers-Miller, 1999; Cole, 1989). After all, there is no physical harm involved (Wilkes, 1978).

There are different types of consumers but there is a category driven by price and value consciousness (Dutta & Biswas, 2005; Lichtenstein, Bloch, & Black, 1988; Lichtenstein & Burton, 1990; Lichtenstein, Ridgway, & Netemeyer, 1993; Lichtenstein, Netemeyer, & Burton, 1990; O'Neill & Lambert, 2001; Ofir, 2004). The existence of this category of consumers would partly explain their misbehavior (Albers-Miller, 1999). Ang et al. (2001) presented that value conscious consumers will purchase counterfeit goods either believing they have received nearly the same quality as the original or are willing to be tolerant of imperfection in the merchandise due to the reduced price. The closer the performance of the fake with the original, the greater is the tendency to favor counterfeit goods.

On the other hand, price conscious buyers focus only on price and as Monroe and Petroshius (1981 cited in Lichtenstein et al., 1988) pointed, they will seriously match price difference with perceived value of additional features. Considering that performance expectation may be waived for digital piracy due to the minimal cost of acquisition and the ease of replacement suggesting low product involvement then, buyers may even shift their orientation from value to price. The shift in orientation supports the views of Lichenstein et al. (1988) who posited that buyer behavior may change with product involvement across product classes and even across time. Thus, drawing from the findings of Solomon and O'Brien (1991), it may intuitively be posited that prestige buyers may likewise become more price conscious with respect to entertainment CDs and DVDs. Squeezing the best value for the lowest price, such price and value consciousness shall be termed in everyday parlance as bargain mentality.

Is It Simply Bargain Mentality?

Despite the knowledge and recommendations brought forth by previous research, piracy as does counterfeiting continues to exist. Admittedly, the effort of some governments to clamp down on pirating activity by enacting laws penalizing offenders and actually bringing suit, have made it riskier for digital pirates and purchasers of pirated digital content. Yet, piracy continues. Why? It is because of man's innate nature that drives them to seek for freebies and bargains without thought of how it gets into their hands.

It takes no expert to see that an individual is drawn to seek for bargains—may this be a rich man wanting to purchase a whole firm or a lowly man who must make ends meet. The American coupon society is an example of this behavior. Moreover, one can observe the volume of buyers in a store during a "sale" period that allows a person to buy the same product at a cheaper price. One notes, the blossoming of outlet shops that sell off-season merchandise at greatly discounted prices. The demand for no-frills shopping has given rise to Costco and Wal-Mart, and a market for airline companies like Southwest. For instance, Wal-Mart is said to attract about 100 million people to its 2,600 stores each week (Horyn, 2002).

Is it any wonder that an individual would look for alternatives to purchasing expensive software, CD's, and digital versatile discs (DVDs)? Following the principle of value consciousness comes the motto, "same goods, cheaper price." Why pay more, when one can get it for less? Taking off from Jin and Sternquist (2004), there is greater pleasure evoked when one

is unexpectedly able to find price savings on higher valued goods. Indeed, higher discount levels lead one to have increased perceptions of getting a good deal. Schindler (1989) refered to this as "smart-shopper feelings."

The question of ethics again comes into play. Pirating is illegal and others thus believe that piracy is unethical. Purchasing of pirated digital content, as against downloading, is likewise unethical as it supports the illegal acts of enterprising individuals. But, what of legitimate companies that have unethical business practices? For instance, the much celebrated case of Wal-Mart. The company has been accused of underpaying its staff to maintain its low prices, which the company claims benefits the buying public (Hannon, 2005). Does the consumer thinks that he/she is buying from an unethical firm or that he/she is buying the same produce at a lower cost? Similarly, when a consumer purchases a pirated CD or DVD, does that consumer think that he or she is buying from a digital pirate or that he/she is buying the same digital content at a lower cost? Unless that purchase is transacted in a shady environment, there is no thought of an illegal activity (Hill, 2007).

Flea markets and garage sales are a common site in many areas in Asia, and as observed by Bloch et al. (1993), it is a place conducive for the sale of counterfeit goods. Indeed in flea markets, we find many bargain items, new or second-hand, that attract even Western buyers so this is not an Asian phenomenon. It is a place that openly transacts sales of items, be it export over-runs or fake branded products. If there is no policing of activities in this area, then the purchase of any good in that place has no semblance of illegality. Consequently, when pirated CDs and DVDs are made available to the consumer, sometimes even with a guarantee of replacement for defective goods, does not one naturally have a tendency to buy? Behaving without malice, that is the bargain mentality.

Social Norm

Ethicists, however, return to the principles of right and wrong, maintaining the position that piracy is universally wrong. It would appear that guilt-free downloading and sharing of digital content is prevalent among young adults; and thus, educating them about the immorality as well as illegality of the

act will help address the current misbehavior. Yet, one cannot presume that college students who served as the respondent base of a vast majority of researches are the only ones engaged in piracy. It may be that the larger society likewise sees nothing wrong, thereby reinforcing the behavior of students. It would appear that the great protestors are large businesses that attribute deceased revenues to lost sales due to piracy rather than to the marketing fundamentals of price, product, place, promotion, and people. It has been argued that a good number of those who download for free are not potential buyers, since they do not have the resources to purchase to begin with.

There have been attempts to show that piracy is considered theft; thereby, there is the view that allowing such misdemeanors to prosper further degrades a society. Researchers have thus tried to determine if a digital pirate would extend that behavior in the physical marketplace or if it reinforces an attitude that will dictate consumer behavior in the future. Thus far, it has been pointed that those who engaged in piracy did not see themselves taking something for free in the physical environment as that would be clearly wrong (Balestrino, 2008; Yu, 2010). Studies have only shown that those who have downloaded for free in the past, will habitually continue to do so (Yoon, 2011).

It may puzzle some why there is a perceived dichotomy between the virtual and real world. This may be explained by the rapid introduction of, and change in, technology. Parents of college students today were raised in an environment that experienced learning, and were entertained, using the five senses. It is nostalgic for some to flip pages in a book, smell the popcorn in a movie theater, and feel the excitement of the crowd in a music concert. Time seemed to move a bit slower. Today, the sense of urgency and need for control is prevalent. Advancement in technology is thus matching, or even encouraging, this behavior by bringing the "as-close-to-reality" experience to the end-user at a quick pace where it can be enjoyed conveniently.

Parents, who are supposed to set the moral standards in their homes, are currently enjoying on-demand entertainment, an experience so different from what it was. Technology has caused a paradigm shift such that what is right or wrong becomes blurry. If Betamax allowed end-users to record movies from television sets for their personal enjoyment at a later time, how

different is downloading music or movies from the Internet?

Admittedly there are no readily available studies that show the propensity of the older generation to digital piracy, although there were limited studies on graduate students. Thus, it cannot be ascertained whether such behavior is indeed prevalent. That does not, however, deter from the reality that piracy appears to be the social norm rather than the exception to the norm. If societies across cultures do not find digital piracy as immoral, then changing the view otherwise would entail re-education strategies that cut across age, gender, and culture.

Segmenting the Digital Pirate

So far, literature has lumped piracy behavior and branded all those involved in the activity, regardless of motivation and intention, as pirates. Consequently, they are all equally culpable. While there are research papers that have attempted to rationalize and defend the behavior using as main argument—free use—there was still that tendency to group everyone in the same category. Viewed this way, it makes sense that many of the responses to digital piracy calls for deterrents using technology as well as prosecution.

If the intent of anti-piracy organizations are to curtail piracy considerably, then it may make sense to segment the "market" by type of user and even source of digital content so that the right strategies can be used for each segment. There should be a difference when downloads of digital copies of movies, music, software, and books are used for personal enjoyment as against those used for an enterprising activity (Belleflamme & Peitz, 2010). Certainly, there is no gray area for a profiteer whether copies are sold overtly or covertly; and thus, the full force of the law should be exercised. For physical forms of pirated digital content (CDs, DVDs, and the like) openly sold in stores or flea markets, even those who own and rent the stalls (building managers and event managers) should be prosecuted. This pro-activeness forces the latter to be vigilant instead of allowing them to "wash their hands" by virtue of a contract specifying that illegal goods are not to be sold on rented property. Of course, anyone who knowingly purchases a pirated good for whatever purpose should likewise be penalized.

The hazier situation is if the exchange of pirated copy is without monetary value. Figure 1 shows that some situations are clearer to address than others. Those that are plainly wrong are shaded in black while those that are being contested are shaded in gray. It would appear that there is greater empathy or arguments supporting those who download for personal use (shaded in white), but it is unclear whether sharing that benefit or being a recipient of that downloaded copy, without monetary exchange, should be regarded differently. As earlier pointed out, the collective nature of Asians make the practice of sharing so common bringing into the discussion cultural differences and thus moral relativism.

Use / Source	Personal use only	Personal use then shared for free	Sold for profit
Downloaded a copy for free	(white)	(gray)	(black)
Copied from a friend for free	(gray)	(gray)	(black)
Purchased a pirated copy	(black)	(black)	(black)

Figure 1. Digital piracy: The white, the grays and the blacks.

Alternative Business Models

It is alleged that digital piracy had affected the sales of the entertainment industry. While earlier studies showed a decrease in revenues alongside an increase in the piracy rate, more recent data reveal markedly improved performance. A study by Cammerts, Mansell, and Meng (cited in Cuellar, 2014) revealed that Hollywood revenues increased by 6% to the level of $35 billion in 2012. In the same year, music sales likewise increased with part of the revenues generated from live performances and live streaming. Frosio (2016) reported that, in the last decade, the entertainment industry had grown by 50% and employment in the same industry grew by 20%.

It would appear that piracy has brought in synergies and forced businesses to become more creative in revenue generation. The need for innovative solutions has become as real to industries that utilize digital content as it has been for all other industries. This innovativeness is the appropriate response to what military term as volatile, uncertain, complex, and ambiguous (VUCA) environment brought in part by advancements in technology. Silver and McDonnel (2007) described how movie theater owners have learned to focus on the experience of watching movies on the big screen. By understanding their market better, theater owners invested in facilities to accommodate *image maximum* (IMAX) movies to produce a viewing experience that cannot be replicated in a home theater.

In the software industry, Microsoft parlayed further losses by partnering with Lenovo that had a substantial share of the computer hardware market. In their partnership, Microsoft operating systems became pre-installed in computers sold, particularly in China. Other strategies include partnering with universities, government, and Chinese manufacturers (Nill & Shultz, 2009; Swike et al., 2008).

Glass and Wood (1996) recommended increasing the cost of software and bundling with textbooks. This proposed solution is derived from the results of their study on the behavior of students in an equity exchange simulation. It has been suggested that market segment pricing may also incentivize the purchase of original goods (Upshaw & Babin, 2010). This supports the view that some consumers are bargain-seekers and thus can be readily swayed with value-for-money proposition. There is no intent to defraud as these consumers simply want to stretch the value of their money by purchasing goods at the cheapest possible price while maintaining some degree of quality assurance. However, caution should be exercised as the practice of some content providers to bundle mediocre tracks with good tracks in a music album, for instance, actually encourages piracy behavior (Hill, 2007).

With digital technology at the fingertips of the young adults, there is no thought given to the unethical act of downloading music, video, software, and even e-books for private use or to share with others (Upshaw & Babin, 2010). If this aptly describes the digital pirate, then it makes sense for producers of digital content to make these available in websites where advertisers can make up for the monetary value of content that is downloaded for free (Belleflamme & Peitz, 2010).

Curien and Moreau (2009) also proposed increasing revenues through ancillary products, thus suggesting the renegotiation of contracts with artists so that legitimate distributing firms gain revenues through another stream. In this way, music artists in particular may gain from a wider audience redounding to greater popularity. However, Piolatto and Schuett (2012) noted that side revenues work best for already popular artists.

Another strategy to address digital piracy is to provide free downloads for snippets of the entire digital content, and charging for better quality and longer usage similar to the "trial use" of software companies that consider these advertising and promotional expenses. Peitz and Waelbroeck (2006) determined that sampling a digital product may prove to be beneficial. This is no different from strategies used by companies in marketing to their consumer. Going back to basics, Nill and Shultz (2009) supported moves by companies to establish lasting customer relationships with consumers willing to pay by providing services not available to those with pirated versions of digital content.

Conclusion

Taking something without the consent of its rightful owner is at the center of the arguments of anti-piracy supporters. It is reasoned that any individual who has exerted effort to produce a unique material in whatever form is entitled to reap the psychological and financial benefits it may bring. Thus, depriving the creator from that entitlement is an illegal and immoral act.

Where the invention is in physical form, it is easier

to identify where culpability occurs. However, when it is in the form of digital content, then haziness sets in. For instance, there is confusion in differentiating ownership of a compact disc that could be lent, traded, or disposed of and ownership of its content. Similarly, it is the impression by many that anything online is free since it resides in a public domain.

It is claimed that digital piracy is on the rise, globally. As a result, it has not only deprived the rightful owners of the revenues it deserves, it has caused the jobs of many who were dependent on the industry. To combat the upward trend, governments, private institutions, and concerned individuals lobbied for stricter enforcement of the Intellectual Property Rights agreement. There have been massive efforts to attack the problem at all possible angles including mass media campaigns, youth education, identification and prosecution of offenders, use of technology to fight technology, and improvement of marketing and distribution strategies. Despite these efforts, global piracy prevails.

There is no doubt that technological advances have made it easier to have access to information, software, music, movies, and computer games. With reproduction costing very little, the marginal cost of searching and downloading a file or purchasing the readily available digital copy is very low. There are simply few incentives to purchase original CDs, VCDs, DVDs, and Blu-rays that are often discarded once consumed or transferred into a hard drive or an MP3 player for music.

More importantly, societies have changed. The desire for on demand entertainment became possible with the innovative introduction by Sony of the Walkman, followed by Betamax video recording. Since then, providing the consumer with the autonomy to decide when and where they can enjoy entertainment has been the focus of many research and development efforts. Consequently, many believe it is not a serious moral issue and since the momentum for technological development can no longer be reversed, copyright laws should instead be revisited.

There are those who claim that piracy cannot be eradicated for the social benefits it provides. The access to internet services has allowed those with limited resources to experience parts of the modern world they would have otherwise not been able to enjoy. Social equity is achieved when they are able to download digital content at minimal or no fees.

Demand side piracy is a practical concern. For as long as goods are readily available at the cheapest price possible, then value conscious consumers desiring immediate gratification will continue to seek these out. If digital content can be legitimately purchased at the right price and time, this will naturally curb online piracy.

The solutions to digital piracy calls for working with individuals, institutions, and nations. Indeed, if one were to address global piracy, cooperation among nations becomes imperative. However, for any long lasting solution, piracy should be viewed with all the grays. For it to be categorized simply as immoral and illegal bring about traditional responses of education, deterrence, and prosecution. These traditional solutions have not yet worked. Perhaps the piracy term should be redefined to allow for creative solutions to permeate.

Rather than continue the debate of rightness or wrongness of piracy, businesses should create ways to capture some of the value lost to pirates. Producers and distributors of digital content should rethink their business models, and focus on the market that counts. For instance in gaming, video games may be played online for free but gamers need to purchase hints and charms that allow them to advance to another level. Computer software companies can also make it convenient for consumers to upgrade, and pay for, their software electronically. Advertising in websites as well as co-branding are also opportunities that managers can consider to work alongside piracy. Producers of movies and television series can work with home video channels so that the prices of movies and shows are tucked into home viewing subscription rates. There are no limits to finding solutions for the 21st century consumer.

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