In recent years, the rapid growth of the Internet has provided a refuge for a multitude of computer-based crimes, specifically intellectual property piracy. Digital music piracy exists on such a vast scale and has been growing so rapidly that this has contributed substantially to the dramatic erosion in industry revenues in recent years (International Federation of Phonographic Industries [IFPI], 2011). The IFPI noted that debut album unit sales in the global top 50 have fallen -77% from 2003-2010 and an estimated €240 billion from 2008-2015 will be lost in retail revenues to the European creative industries due to piracy. Although the surge by more than 1000% is seen in the digital music market from 2004 to 2010 to an estimated value of USD$4.6 billion, global recorded music revenues have declined by 31% over the same period. This powerfully illustrates that even with the most progressive strategy of licensing hundreds of digital music, it is unable to prevent the steady decline in the overall legitimate music market. Research has shown that Brazil and Spain are among the highest numbers of users accessing unlicensed services. Unfortunately, digital music piracy is not constrained only to the West. This criminal behaviour is global and has affected markets globally [IPFI, 2011].

Music piracy in Malaysia has not been spared with an increase in piracy from 40% to 60% between 1999-2000, and with an estimated trade loss of RM60.8 million in 2000, as compared to RM19 million in 1999 (International Intellectual Property Alliance [IIPA], 2011). Malaysia reached nearly 17 million Internet users by the middle of 2009, or roughly 60% Internet penetration. Broadband penetration grew as well, reportedly reaching 55.6% of all Internet users by the end of 2010 (IIPA, 2011). The Entertainment Software Association vendors detected 1.07 million connections by peers participating in unauthorised file sharing of select member titles on P2P networks through ISPs located in Malaysia. Breakdowns by ISP showed that Telekom Malaysia Berhad subscribers accounted for approximately 83% of this activity occurring in Malaysia. The local recording industry lodged 665 complaints with the Malaysian Government in 2010, and there were 90 enforcement actions but only 60 court actions were filed (IIPA, 2011).

Psychological research concerning why people should engage in music piracy has been a matter of much interest in the past decade. Illegal downloading of music through file-trading services is highest among university students (Graham, 2004). Although music piracy is acknowledged as a criminal activity, Hinduja (2003) has argued that individuals may not view music piracy as a crime. Cohen and Cornwell (1989) concluded that college students do not view software piracy and other forms of unethical behaviour unfavourably. Solomon and O’Brien (1990) reported that this practise was not only common but was also considered socially and ethically acceptable among students. In a study by Reid, Thompson, and Logsdon (1992), the authors argued that students were knowledgeable about copyright laws but nevertheless copied software. Siegfried (2004) found that students generally felt that copying commercial software and downloading music from the Internet and other questionable behaviours ethically acceptable (see also Simpson, Banerjee and Simpson, 1994). Cheng, Sims and Teegen (1997) found that students stated ‘most people I know copy software’ as a top reason for pirating. Most, if not all research on the behavioural aspects of students who pirate have been on non-musicians. This paper aims to explore two aspects; firstly, the attitudes behind why music students pirate, using a theoretical model based on Ajzen’s (1991) Theory of Planned Behaviour (TPB) and

DOI: 10.5176/0000-0005_1.1.4
secondly, justifications for pirating, using Sykes and Matza’s (1957) model of Neutralization Theory.

The TPB model postulates that intention, which determines behaviour, is the result of a person’s attitude toward the behaviour – beliefs about the likely consequences of the behaviour (for example: it’s ok to pirate because it helps me save money), subjective norms - beliefs about the normative expectations of others (for example: it’s ok to pirate since my friends are also doing it) and perceived behavioural control - beliefs about the presence of factors that may facilitate or impede performance of the behaviour (for example: it’s ok to pirate since the Internet is so accessible). Research using the TPB model has been on the increase. One such significant study is by D’Astous, Colbert and Montpetit (2005) who reported that anti-piracy arguments had no significant impact on the behavioural dynamics underlying online music piracy. Gopal, Sanders, Bhattacharjee, Agrawal, and Wagner (2004) applied the TPB model focussing on music piracy, found that the more ethically inclined individuals were less likely to download illegally. The study also found that other factors such as deterrence, legal actions, and education were not likely to be effective in reducing music piracy. Cronan and Al-Rafee (2008), using the TPB model suggested that attitude, past piracy behaviour, perceived behaviour control, and moral obligation explained 71 percent of the intention to pirate. Morton and Koufteros (2008) conducted a study on 216 respondents using the theory of planned behaviour and deterrence, and consistent with the theory of planned behaviour, the results showed that behavioural beliefs, normative beliefs and control beliefs were significant antecedent factors of intention to commit online music piracy.

Research in the South East Asia region has provided some compelling results as well (see Chiou, Huang and Lee, 2005; Wang, Chen, Yang & Farn, 2009). The former showed that attributive satisfaction, perceived prosecution risk, magnitude of consequence, and social consensus were very important in influencing customers’ attitude and behavioural intention toward music piracy behaviour. The latter confirmed the explanatory power of the TPB model with regards to illegal downloading of pop music among 350 teenagers in Northern Taiwan. Chen, Pan and Pan’s (2009) study in Taiwan found that attitude, subjective norms, and perceived behavioural controls to use pirated software have positive impact on consumers’ intention to use pirated software (see also Yoon, 2002, Liao, Lin, & Liu, 2009). Khang, Ki, Park, and Baek (2012) found that moral obligations and subjective norms were significant predictors of an individual’s intention toward Internet piracy. In Malaysia, four significant researches have emerged in the current years. Firstly, Ramayah, Osman, Muhamad, Lee, and Syed (2003) found that consumers who were normatively susceptible were less likely to have a favourable attitude towards piracy, using the Theory or Reasoned Action (which later developed into TPB). This is in contrast to previous studies that intention to pirate is positively related to subjective norms. The authors stipulated that this may be due to Confucian beliefs and the potential loss of pride from being seen as one who was unwilling to buy a genuine product. Similarly, a study on undergraduate students in public institutions in Malaysia by Jaafar, Ramayah, and Teng (2008), using the TPB model found that there is a negative relationship between ‘attitude’ and ‘intention to use’. Using a sample of 116 university students, Ramayah, Ahmad, Chin, and Lo (2009) found that habit and intention had a strong effect on Internet piracy behaviour among students. Alam, Ahmad, Ahmad and Hashim (2011) noted that all factors except behavioural control had positive and significant impact on pirated software purchasing behaviour among Malaysian students.

The second half of this study intends to study how rationalizations assist music students to neutralize this criminal behaviour. According to Sykes and Matza, 1957, the Neutralization theory assumes that people who participate in crime have guilt feelings, and the goal of their perspective is to resolve guilt and to maintain a positive sense of self. To do so, specific techniques are used to justify their actions. These include the denial of responsibility, denial of injury, denial of the victim, condemnation of condemners, and appealing to higher loyalties.

Denial of responsibility involves the offender believing that he/she was helplessly propelled into criminal behaviour, and shifting the blame for their criminal behaviour to some-
Denial of injury refers to the offender believing that his/her actions caused no harm to other individuals or to the society, and thus not morally wrong (for example: “artists get money from other sources like tours and commercials anyway”). Denial of the victim involves the offender believing that the victim deserved whatever action the offender committed due to the victim’s lack of virtue or morals (for example: “music industry makes enough money from radio, publicity and concerts”). Condemnation of condemners implies that the offender believes law enforcement people or victims have the tendency to be equally corrupt, and as a result are hypocrites to stand against (for example: “everyone’s doing it”). Lastly, appealing to higher loyalties refer to the offender believing in a firm allegiance for a greater good to a person, group, income or traditions and may be more important than legal boundaries (for example: “my parents know and they don’t care”).

This model has been widely used on war crimes (Cohen, 2002) and domestic violence (Mooney, 2007). However, there is little empirical literature that supports for neutralization theory in relation to music piracy. In Hinduja, 2007, cross-sectional responses from 507 college students were examined on the role of neutralization and software piracy. The results showed that the techniques of neutralization had a weak link to software piracy. Contrasting results were discovered when Ingram and Hinduja (2008) conducted a study among 2,032 undergraduates and found that the techniques associated with denial of responsibility, denial of injury, denial of victim, and appeal to higher loyalties were positively related to moderate levels of piracy participation. Furthermore, the technique of appealing to higher loyalties was found to be conditioned by the respondent’s approval of the behaviour (see also Harris & Dumas, 2009, Cohn & Vaccaro, 2006). Higgins, Wolfe and Marcum (2008) found that to reduce instances of music piracy, the manner in which individuals perceive their behaviour is the key to reducing instances of music piracy. They suggest that if the illegality of this behaviour is reinforced to youth before participation in this behaviour using neutralization theories, the likelihood of them participating in music piracy will diminish. One other notable research is by Ulsperger, Hodges and Paul (2010) who studied responses from a survey given to 800 students at four universities with regards to music piracy, grouped and categorized their justifications using this model. They reported that large percentages of students neutralize their activity by denying responsibility while a sizeable number used condemnation of condemners as a justification for their actions. Fewer deny injury and victimization, and the lowest frequency of neutralization among music pirates involved appealing to higher loyalties.

The purpose of this study is twofold. Firstly, this study is the first of its kind in attempting to study the differences in attitudes and behaviours between music students and non-music students when pirating music. All studies previously focused on college students who were non musicians. Would behavioural patterns differ between musicians and non-musicians? Secondly, would there be differences in neutralization methods used when pirating music, between music students and non-music students? The results from this study can be seen as uniquely informing the two literatures i.e., understanding behavioural patterns in musicians, and how these actions are being justified.

Method

Participants. The research was conducted on a sample of 400 college students from three universities in Kuala Lumpur. One is a privately owned university, and the other two universities are public universities. These three universities have been selected due to the large amount of students that each of these campuses have. The participants in these universities are also representative of the population of college students in Kuala Lumpur. Survey distribution took place in classrooms after classes were completed.

Materials and Design. The group of 400 students were divided into 2 groups of 200 participants who were music students (Group A), and another 200 participants who were non music students (Group B). Group A is then subdivided into 50 Malay males, 50 Chinese males, 50 Malay females and 50 Chinese females. The subdivisions were similar in Group B.
Procedure A questionnaire consisting of 2 sections was administered. All questions used a 5-point Likert scale from ‘strongly agree’ (1) to ‘strongly disagree’ (5). Section 1 of the questionnaire comprised of 18 questions in order to test the constructs of the TPB model. Of the 18 questions, 8 were questions formulated to test the attitude behind their behaviour (e.g., downloading music illegally/purchasing pirated CDs will give me the opportunity to have easy access to music which I cannot find in music shops), further 4 questions tested subjective norm (e.g., most of my musician friends would approve of me downloading music/purchasing pirated CDs), and the last 6 questions tested on their perceived behavioural control (e.g., the shops that illegally sell pirated CDs are close to where I live/study/work). Section 2 contained 21 questions, 4 were designed to test denial of responsibility (e.g., it is so easy and convenient to access and get free music online), 5 questions tested on denial of injury (e.g., I don’t do it in excess, hence it is not so bad), 3 questions tested denial of victim (e.g., the music industry doesn’t need that much money), 4 questions on condemnation of condemners (e.g., it is wrong, but everyone is doing it), and the last 5 questions on appealing to higher loyalties (e.g., I believe that the Internet was designed to be a database for free trade of information).

Results

Participants’ mean age was 22.10 years (SD = 2.89). Cronbach’s alpha was calculated separately for each of the eight putative scales included in the questionnaire. The resulting values for attitudes towards piracy, subjective norms, perceived behavioural control, denial of responsibility, denial of injury, denial of victim, condemnation of condemners, and appealing to higher loyalties were .77, .72, .65, .60, .59, .44, .59, and .72 respectively. Since several of these values were less than the convention of .70 for acceptance of the items as a single scale, the remaining analyses were conducted using responses to individual questions.

A multiple regression considered the extent to which total piracy scores could be predicted by the items on the scales concerning attitudes towards piracy, subjective norms, perceived behavioural control plus gender, age, whether or not the participant was a music student, allowance, internet speed, and internet competence. The result of this was significant (F(24, 312) = 3.61, p < .001, adjusted R^2 = .16), and standardised beta values for those variables that predict piracy significantly are shown in Table 1.

Table 1 about here-

Another multiple regression considered the extent to which total piracy could be predicted by the items on the scales concerning denial of responsibility, denial of injury, denial of victim, condemnation of condemners, and appealing to higher loyalties plus gender, age, whether or not the participant was a music student, allowance, internet speed, and internet competence. The result of this was significant (F(27, 309) = 1.90, p = .005, adjusted R^2 = .14), and standardised beta values for those variables that predict piracy significantly are shown in Table 2.

Table 2 about here-

General Discussion

It is interesting to note that none of the variables concerning attitudes towards piracy or subjective norms predicted piracy, but that instead the significant variables were those concerning perceived behavioural control. It is interesting that some items for perceived behavioural control were related positively to piracy. Although contrary to previous research by Chen, Pan and Pan’s (2009), Liao, Lin and Liu (2009), and Yoon (2010) which showed a positive relationship between attitude, subjective norms, and perceived behavioural controls and the use of pirated software, this current study is not the first in finding a negative relationship. In a study by Chiou, Huang and Lee (2005), it was noted that perceived behavioural control was the only factor to relate positively to piracy. Previous studies by Ramayah, Osman, Muhammad, Lee, and Syed (2003) also found that subjective norms related negatively to piracy. Similarly, Jaafar, Ramayah, and Teng (2008) reported a negative relationship between attitude and intention to pirate. The findings here clearly indicate three potential issues, firstly participants in this study may be reluctant to admit their thoughts and attitudes towards piracy.

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as they may experience a sense of guilt or a potential loss of pride. This is consistent with the study by Ramayah, Osman, Muhamad, Lee, and Syed (2003) which assumed that participants placed a high importance on pride saving. According to Ramayah, et al. (2003), pride saving is an important facet of the Malaysian culture. By admitting to the perception on piracy, there is a potential loss of pride to being perceived as someone who is unwilling to purchase music at its full price. Secondly, the study shows also that participants were unwilling to blame or implicate others in their illegal pursuit. This could be due to the fact that piracy happens on an individual level, in one’s own private space and time. Hence, associating a friend, parent or teacher in this activity would seem unfair. Thirdly, while admitting to pirating, participants reasoned that the rate of downloading pirated music is convenient and fast, and that the sound quality is comparable to an original recording. More importantly this study indicates an obvious disconnect between thought and action.

The results here also indicate that there were only two methods used in justifying the piracy act, namely ‘condemnation of condemners’ and ‘appealing to higher loyalties’. However, since only one item per method of justification was of significance, it would be reasonable to assume that all participants did not require a reason to justify their actions. This is in contrast to previous research which identified at least one or two techniques used to justify piracy. All previous research concerning the Neutralization Theory used only Western participants, and this current study is a first of its kind to test on Asian, and particularly Malaysian participants. As mentioned previously, Malaysian participants may be more cautious in revealing the thought processes behind their actions, and hence the negative relationships between justification methods and piracy.

Rather interestingly, the results here seem to suggest that all students irrespective of their race, gender and major studies are consistent in their behavioural patterns. This is significant as it reveals that participants of the same age group have similar attitudes and mind-set, despite half the group being music students. This implies a rather disturbing reality - it affirms that music students who are better equipped with knowledge on piracy laws and ethical issues would commit the same crimes as non-music students. This is consistent with a study by Gopal, Sanders, Bhattacharjee, Agrawal, and Wagner (2004) who found that factors such as deterrence, legal actions, and education are not likely to be effective in reducing music piracy. Similarly in Reid, Thompson, and Logsdon (1992), it was noted that even though students had knowledge about copyright laws, they nonetheless copied pirated software. Lastly, this study shows that having a high level of competency is positively related to piracy. This is expected and consistent with prior research (see Jones and Lenhart, 2004).

In the meantime, there are nevertheless clear gaps in the literature on music piracy, and these should be investigated by future research. Firstly, are there other underlying factors to why participants would not concede to such behaviour? Perhaps future studies may include religious beliefs and personality behaviours to further understand the thought processes of participants, especially in an Asian setting, or amongst communities who have strong religious convictions. Secondly and perhaps more importantly, why do music students and non-music students display similar behavioural patterns? This may be a disturbing discovery since music students are better equipped in their knowledge on piracy and are expected to be committed to their art, they therefore should pirate less and have different justifications for pirating. Further qualitative studies are needed to understand fully the reasons behind piracy among music students. Future research could also be conducted on professional musicians to determine if piracy behaviours would continue once music students enter the professional arena. It would be interesting to study the changes (if any) that occur as a student musician transitions into a professional.

Future studies should investigate non-linear relationships between variables, and over the short term at least, adopt a very reductionist experimental method that sacrifice ecological validity for the sake of greater insight into the conditions under which certain theories do and do not operate. In conclusion music piracy remains an uphill battle for the music industry, and there seems to be no clear answer to fighting this crime.
References


Assoc Prof Joanne Yeoh is a practising violinist whose interest lies also in the social and applied psychology of music, with a particular focus on music and consumer behaviour. She currently heads the Music Department at Universiti Putra Malaysia.
Table 1 - Prediction of total piracy by variables concerning attitudes towards piracy, subjective norms, perceived behavioural control

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>I often download illegal music</td>
<td>-0.200</td>
<td>-3.18</td>
<td>0.002</td>
</tr>
<tr>
<td>The downloading rate for illegal music is fast</td>
<td>-0.156</td>
<td>-2.44</td>
<td>0.015</td>
</tr>
<tr>
<td>The sound quality of illegally downloaded music is equivalent when compared to an original</td>
<td>-0.177</td>
<td>-2.38</td>
<td>0.018</td>
</tr>
<tr>
<td>Competency</td>
<td>-0.119</td>
<td>-2.240</td>
<td>0.026</td>
</tr>
</tbody>
</table>
Table 2 – Prediction of piracy by variables concerning denial of responsibility, denial of injury, denial of victim, condemnation of condemners, and appealing to higher loyalties

<table>
<thead>
<tr>
<th>Variable Description</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is done so much that it is not a big deal</td>
<td>-0.156</td>
<td>-2.219</td>
<td>0.027</td>
</tr>
<tr>
<td>I sometimes download for a friend or family member who needs it</td>
<td>-0.136</td>
<td>-1.992</td>
<td>0.047</td>
</tr>
<tr>
<td>Internet speed</td>
<td>-0.112</td>
<td>-1.983</td>
<td>0.048</td>
</tr>
<tr>
<td>Competency</td>
<td>-0.118</td>
<td>-2.102</td>
<td>0.036</td>
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</tbody>
</table>