# **Ethical Decision Making in a Peer-to-Peer File Sharing Situation:** The Role of Moral Absolutes and Social Consensus

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**Abstract** Individuals are downloading copyrighted materials at escalating rates (Hill 2007; Siwek 2007). Since most materials shared within these networks are copyrighted works, providing, exchanging, or downloading files is considered to be piracy and a violation of intellectual property rights (Shang et al. 2008). Previous research indicates that personal moral philosophies rooted in moral absolutism together with social context may impact decision making in ethical dilemmas; however, it is yet unclear which motivations and norms contextually impact moral awareness in a peer-to-peer (P2P) file sharing context (Shang et al. 2008). In sum, factors affecting the decision to share copyrighted material require further clarification and investigation (Shang et al. 2008). The purpose of this study was to use a consumer-based scenario and multiple ethics measures to explore how idealism, formalism, and perceived social consensus impact users' propensity to recognize that the sharing of copyrighted media through P2P networks was an ethical issue and their subsequent ethical intentions. Results showed that high levels of idealism and formalism were associated with an increased recognition that file sharing was an ethical issue, but neither construct had a direct effect on ethical intention. Strong social consensus among respondents that other people consider file sharing to be unethical was also positively related to the recognition that file sharing was an ethical issue, and ethical recognition was a moderate predictor of intention not to engage in file sharing. Finally, a post hoc mediation analysis indicated that idealism, formalism, and social consensus operated through recognition of an ethical issue to impact ethical intention (indirect-only mediation).

**Keywords** Ethical issue recognition · Ethical intention · Moral absolutes · Social consensus · P2P

# Introduction

When considering the burgeoning demand among consumers to illegally download copyrighted media, it becomes paramount to the financial health of copyright holders to understand the complexities, nature, and drivers of such behavior in order to more effectively respond to its threats. The music industry federation estimates 95 % of music downloads are pirated. Lysonski and Durvasula (2008) report the findings of a study commissioned by the Recording Industry Association of America (RIAA) using self-reports of illegal peer-to-peer (P2P) file sharing, which show that 12 % of consumers admit to illegally downloading files. In 2003, Forrester Research estimated that piracy had cost the music industry \$700 million in revenues (Roberts 2003). Digital piracy has been blamed for a 30 % decline in global music sales from 2004-2009 (Pfanner

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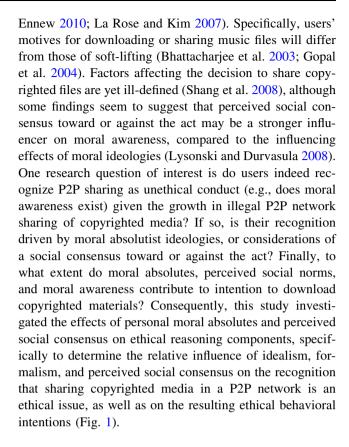


2010). In terms of volume, the Motion Picture Association of America estimates that at least 600,000 movie files are illegally shared each day on P2P networks (Anonymous 2003). Hill (2007) and Siwek (2007) provide a thorough review of piracy costs.

Pirating of digital media is dramatically impacting the music and movie industries worldwide (Pfanner 2010), and in some countries the governments' reaction has been quite punitive. For example, South Korea, Taiwan, and France have enacted tough laws to curtail pirating by penalty of the violator's Internet connection being cut off (Waterman et al. 2007). This response has received fundamental resistance from civil liberty groups in countries such as the United States. In the United States, copyright holders appear to be handicapped in a juxtaposition of civil liberties concerns that hinder a stronger punitive stance by government, and users' willingness to illegally share files. Since the passing of the Digital Millennium Copyright Act, "Virtually every software security mechanism that has been utilized to prevent piracy has been breached (or will be eventually)" (Cronan and Al-Rafee 2008, p. 538). Also adding to the strategic dilemma faced by copyright holders is the uncertainty of user response to positive versus negative counter-piracy preventative measures (Sinha and Mandel 2008).

In a noteworthy study, Meteus and Peha (2008) reported the findings of the first large-scale quantitative monitoring of the actual P2P exchanges of copyrighted material on a college campus in the United States. Fifty-one percent of students living on campus engaged in illegal P2P sharing, at least 42 % attempted to transfer material, and the mean number of copyrighted media titles attempted for transfer was 6 per week per monitored student. Shockingly, Meteus and Peha (2008) found no evidence that large numbers of students legally share files on P2P networks. In addition, they found the behavior permeated identifiable demographic boundaries.

In order to help copyright holders better mitigate felt threats from illegal sharing of files, research in the field of consumer ethics has intensified its focus on the influencers of illegally sharing copyrighted materials in a P2P network environment (Fukukawa and Ennew 2010; Shang et al. 2008). It appears that user motivations to illegally download will differ depending upon the context or type of violation of intellectual property rights (Fukukawa and



#### Moral Absolutes and Ethical Decision Making

It is well recognized in the literature that an individual's ethical ideology may have considerable effect upon how an individual perceives and decides to respond in an ethically questionable situation (Forsyth 1992; Narvaez et al. 1999). Ethical ideologies rooted in moral absolutes may impact moral awareness, can explain differences in ethical decision making, are one of the integral elements within an individual's moral framework, and differentially act as a guideline to ethical reasoning and are used when judging the rightness or wrongness of an ethical action (e.g., Brady 1985, 1988; Ferrell et al. 1989; Forsyth 1980; Hunt and

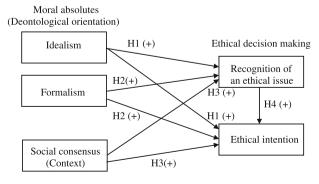


Fig. 1 Hypothesized relationships



<sup>&</sup>lt;sup>1</sup> Deep packet inspection (DPI) technologies have been used to reduce illegal usage of P2P networks by inspecting P2P transfer material. DPI can estimate the extent of piracy occurring and notify individual users who may be violating copyright law. However, some encryption software actually prevents DPI from detecting whether transferred material is copyrighted, rendering enforcement attempts ineffective. Thus, P2P users or developers may use encryptions as a way of avoiding detection by transfer inspection technologies.

Vitell 1986; Swaidan et al. 2004; Vitell and Singhapakdi 1993; Vitell et al. 1993). However, Forsyth and Berger (1982) empirically found that, depending on the situation, ideology may be related to moral awareness or recognition, but not necessarily to intended behavior. Ideologies have been shown to be integral to a person's ethical decision making (e.g. Valentine and Bateman 2011).

Two popular moral absolutist ideologies are idealism (Forsyth 1980) and formalism (Bateman et al. 2003; Brady 1988; Brady and Wheeler 1996). Idealism focuses on the inherent goodness of an action, which in turn allows one to determine the ethical course of action (Forsyth 1980). Specifically, "Individuals high in idealism are concerned with the welfare of others [harming others is universally wrong], and in particular, maximizing positive outcomes for all impacted by a decision or behavior" (Henle et al. 2005, p. 221). Empirical studies have shown idealism to be positively related to ethicality and the ethical reasoning process (Singhapakdi et al. 1999), to have significant influences on consumer ethical decision making across a variety of cultures and contexts (Al-Khatib et al. 1997; Lu and Lu 2010; Singhapakdi et al. 2000; Vitell and Patwardham 2008), and to be a significant positive predictor of recognition of an ethical issue (Barnett et al. 1998; Bateman and Valentine 2010; Davis et al. 2001; Reynolds 2006; Valentine and Bateman 2011) and ethical behavior (Henle et al. 2005; Singhapakdi et al. 1996a, b, 1999). Therefore, the following hypothesis regarding the relationship between idealism and ethical decision making in a P2P file sharing environment is presented:

**Hypothesis 1** Idealism and ethical decision making are positively related. Specifically, increased idealism results in higher recognition that sharing files in a P2P environment is an ethical issue and results in higher ethical intention.

Formalism (a deontology-like ideology) reflects the human tendency to assess ethical situations in terms of their consistent conformity to norms or rules or some other formal features (Brady and Wheeler 1996). Specific to the P2P file sharing environment, Shang et al. (2008) studied the role of a deontological norm (e.g., rule) "antipiracy" on P2P file sharing and, after removing teleological evaluation from their analysis, found deontology to be a significant predictor of ethical judgment and intent. Cronan and Al-Rafee (2008) found that those who felt a more moral obligation against digital piracy have lowered intent to pirate. Consequently, the following hypothesis regarding the relationship between formalism and ethical decision making is presented:

**Hypothesis 2** Formalism and ethical decision making are positively related. Specifically, increased formalism results

in higher recognition that sharing files in a P2P environment is an ethical issue and results in higher ethical intention.

# Social Consensus and Ethical Decision Making

The concept of "social norm" (Jones 1994), or perceived social consensus, suggests that it is common for individuals to rationalize a course of action based upon the expectations about the behavior of others. This concept extends into the realm of consumer ethics in that, as perceived social consensus against a questionable act is heightened, the greater the individual's moral awareness with regard to an ethical situation (Butterfield et al. 2000). It would be expected that similar relationships would be found in the P2P file sharing environment.

Specific to unethical consumer behavior relating to digital products, the empirical findings that link perceived social consensus to the consumer ethical reasoning process are mixed. Some research shows that subjective or socialization norms are significant predictors of intentions toward the illegal copying of software (Al-Rafee and Cronan 2006; Chang 1998; Moores and Esichaikul 2011), while other research shows the opposite to be the case (Cronan and Al-Rafee 2008). It should be noted, however, upon review of the Cronan and Al-Rafee (2008) scale, it could be argued that their contrary findings may have been due to two of their three items seemingly oriented more toward a desire to please others (or an expectation of pleasing others close to them), as opposed to a general belief about societal norms. Moores and Esichaikul (2011) suggest, "the source of pirated software has shifted from buying to a diffusion network that involves sharing within certain social groups" (p. 1). Finally, some evidence suggests that individual beliefs that peer groups are more akin to illegal digital downloads is growing (Lysonski and Durvasula 2008).

We investigate the influence of perceived social consensus against the act of P2P file sharing of copyrighted materials on propensity to recognize the act as unethical, and on the intention to download or share such material. The following hypothesis regarding the relationship between social consensus and ethical decision making is therefore presented:

**Hypothesis 3** Social consensus and ethical decision making are positively related. Specifically, increased perceived consensus that P2P file downloading is wrong results in higher recognition that sharing files in a P2P environment is an ethical issue and results in higher ethical intention.



## Recognition of an Ethical Issue and Ethical Intention

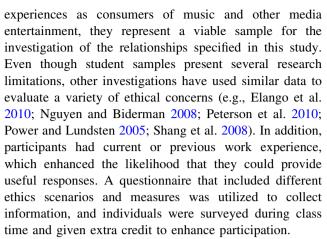
The ethical reasoning process is described as having four key components that progress from recognition of an ethical issue through ethical outcomes (Jones 1991; Rest 1986). Previous research highlights recognition and behavioral intent as pivotal to understanding and predicting moral behavior and decision making (Butterfield et al. 2000; Jones 1991; Rest 1986). The recognition component of the Rest (1986) model assumes that a person must become aware that an ethical issue is being faced so that subsequent moral judgments and ethical intentions can be formulated. Given the importance of ethical recognition, it is likely that other individual and environmental variables function through this factor to impact later stages of ethical reasoning. After such ethical awareness, an individual "must have been able to make a judgment about which course of action was morally right (or fair or just or morally good), thus labeling one possible line of action as what a person ought (morally ought) to do in that situation" (Rest 1986, p. 31). Given these linkages, recognizing an ethical issue (which precipitates moral judgment) should consistently enhance the likelihood that an individual will become more committed to behaving in an ethical manner. Previous research also shows that ethical issue awareness and ethical intentions are positively related (Barnett and Valentine 2004; Singhapakdi et al. 1999; Valentine and Barnett 2007). In the context of P2P file sharing, individuals' motivations are still unclear (Shang et al. 2008). Thus, it is unclear whether file sharers have recognized this behavior as an ethical issue, as well as if such recognition will ultimately lead to increased ethical intentions. The following hypothesis regarding the relationship between ethical issue recognition and ethical intention is therefore proposed.

**Hypothesis 4** Recognition of an ethical issue and ethical intention are positively related. Specifically, increased recognition that sharing files in a P2P environment is an ethical issue results in higher intentions to behave ethically.

#### Method

Data

Data were collected from 387 undergraduate business students attending an introductory business course at a medium-sized national university located in the Midwest. Illegally sharing copyrighted files using a P2P system is popular among university students, so a student sample was used given the suitability of the subjects. Given college students' familiarity with P2P file sharing, as well as their



Most individuals were 18–25 years of age (96.4 %),<sup>2</sup> male (66.9 %), white (94.8 %), and from the United States (96.1 %). With regard to educational background, the individuals were relatively educated with 42.9 % having 3 years of college and 35.7 % having 4 years of college. With regard to work experience, 49.9 % of individuals had 1 year or less of full-time work experience, and 19.4 % had 2 years.<sup>3</sup> Slightly more than 25 % of individuals indicated that they had some experience in direct selling, 52.7 % of individuals had worked for a company that offered training in ethics, and 78.8 % had worked for a company that advanced a code of ethics.

#### Measures

Ethics Scenario

In business ethics research, components of the ethical decision-making process are often measured with scenarios that present real-life issues to participants (e.g., Alexander and Becker 1978; Barnett 2001; Cavanagh et al. 1985; Reidenbach and Robin 1988, 1990; Reidenbach et al. 1991; Singhapakdi 1996a, b; Weber 1990). Such a vignette, crafted from a situation developed by Thong and Yap (1998) and adapted by Shang et al. (2008), was used in this study to measure the ethical issue recognition and ethical intention variables. The items associated with these variables appeared on the survey after the vignette:

Computer to Computer (Peer-to-Peer) Sharing of Files:

You know of a real popular P2P (Peer-to-Peer) system where (if you signed up for it) you could pay an affordable monthly fee to search for and download files from other users in the system. Once you install the software, the system automatically creates a



<sup>&</sup>lt;sup>2</sup> Valid percentages reported.

<sup>&</sup>lt;sup>3</sup> Non-responses on this item were coded as "0."

shared folder on your hard disk. Files downloaded from other users are saved in this shared folder. While connected to the system, a list of files stored in this shared folder is automatically sent to the server, and other users in the network are allowed to download files from this shared folder. There are currently an enormous number of music files in the system along with other types of program files and movies, etc. What would you do?

This particular vignette was considered acceptable for use in this current investigation because it detailed questionable behavior that was likely familiar to the participants, and the scenario was also used by Shang et al. (2008) in the measurement of deontological (or moral absolutist) evaluations and various norms. The original authors note this vignette was profiled after a real-world P2P system, and the directors and members were ultimately criminally convicted for their breach of intellectual property rules.

## Recognition of an Ethical Issue

Ethical issue recognition was evaluated with a single statement that required individuals to disclose if the scenario involved an ethical problem or dilemma: "The sharing of computer files situation above involves an ethical problem/dilemma." Other research studying the ethical decision-making process has used similar single item measures (Fleischman and Valentine 2003; Singhapakdi et al., 1996a, b, 1999). Reponses were provided on a seven-point semantic differential scale that was anchored by "completely agree/completely disagree." Higher scores indicated increased recognition of an ethical issue.

#### Ethical Intention

A behavioral intention scale was used to assess the inclination not to engage in the P2P file sharing outlined in the scenario. Participants disclosed their ethical intentions by responding to four seven-point semantic differential scales that were anchored by "definitely would-definitely would not," "likely-unlikely," "improbable-probable," and "possible-impossible." Responses were coded so that higher scores indicated elevated ethical intentions, and the coefficient alpha of the scale was .98.

## Idealism

Idealism was measured with items taken from the ethical position questionnaire (Forsyth 1980). Sample items were "A person should make certain that their actions never intentionally harm another even to a small degree" and "One should never psychologically or physically harm

another person." Items were evaluated with a seven-point scale comprised of "1" (strongly disagree) and "7" (strongly agree), with higher values showing stronger idealism. A principal components factor analysis using varimax rotation was specified to test the factor structure of the scale, and after deleting the last four items because of undesirable loadings, the revised model indicated that the remaining six items loaded on one factor with values greater than .70. The initial eigenvalue was 3.77, and 62.91 % of the variance was explained. The coefficient alpha for the idealism measure was .88.

#### **Formalism**

A multi-item formalism scale used by Brady and Wheeler (1996) was used to assess an aspect of moral absolutism. Using a seven-point scale anchored by "1" (extremely important) and "7" (extremely unimportant), individuals were asked to rate a list of traits (i.e., "Being Principled," "Being Dependable," and "Trustworthiness") based on their level of importance, and responses were coded (and recoded where necessary) so that higher values represented stronger preferences for particular traits. A principal components factor analysis using varimax rotation was specified to identify the factor structure of the measure, and the finding showed that the last two items ("Known for Being Integritous" and "Being Law-Abiding") had loadings below .60, so these traits were removed from the model. The revised framework showed that the remaining four traits identified the formalism construct with factor loadings above .60, an initial eigenvalue of 2.82, and 70.46 % of explained variance. The scale's coefficient alpha was .85.

## Social Consensus

A two-item scale adapted from Butterfield et al. (2000) was utilized to evaluate social consensus, and these items are "To what degree would other people think it was wrong to get downloads off of a P2P network?" and "To what degree would other people think that it would be ethically wrong to get downloads off of a P2P network?" Statements were rated with a five-point scale containing "G = great" (coded as 5), "M = much" (coded as 4), "S = some" (coded as 3), "L = little" (coded as 2), and "N = none" (coded as 1), with higher scores indicating greater social consensus that P2P downloading was wrong. The coefficient alpha for the measure was .81.

## Social Desirability

Ten items from the Marlowe-Crowne social desirability scale were used to check for the possible presence of impression bias, which can occur in ethics research given



the nature of the topics explored (Randall and Fernandes 1991). Sample items included "I am always willing to admit it when I've made a mistake" and "I am sometimes irritated by people who ask favors of me." Statements were assessed with "1" (True) and "0" (False), and responses were coded so that higher values showed increased social desirability. Item scores were added together for a possible range of 0–10, and the coefficient alpha of the scale was .62.

#### Analysis

Variable descriptive statistics were assessed to determine the magnitude of the focal variables, and correlations were examined to ascertain key variable associations. Two hierarchical regression models were specified to evaluate the study's hypotheses. In the first model, recognition of an ethical issue was specified as the dependent variable, while the controls, idealism, formalism, and social consensus variables were specified as independent variables. In the second model, ethical intention was specified as the dependent variable, which was regressed on the control variables, ethical issue recognition, idealism, formalism, and social consensus.

#### Results

## Descriptive Statistics and Correlations

Table 1 provides an overview of the variable descriptive statistics and correlations. The mean scores for the ethical reasoning measures indicated that individuals' decisions were only moderately ethical, and mean scores for idealism and formalism showed that individuals showed strong preferences for moral absolutes. The mean score for social consensus indicated that individuals perceived that the

immediate social context was slightly unethical, and the mean value for social desirability indicated tendencies for impression management were not strong. Analysis of the correlations showed that recognition of an ethical issue was positively related to ethical intention, idealism, formalism, social consensus, and gender; ethical issue recognition was negatively related to full-time work experience. Further, idealism was positively related to formalism, social consensus, gender, and social desirability. Gender was also positively related to formalism and negatively related to full-time work experience was positively related to social desirability. These findings provided preliminary support for a number of the study's hypotheses.

#### Hierarchical Regression Analysis

Table 2 provides a summary of the hierarchical regression analysis. In the first regression model that specified recognition of an ethical issue as the dependent variable (Part A), the controls were entered into the model first, which resulted in a significant change in  $R^2$ , and years of full-time work experience was negatively related to ethical issue recognition. The idealism and formalism were entered next, which caused a significant change in  $\mathbb{R}^2$ ; both variables were associated with increased ethical issue recognition. This finding provided partial statistical support for Hypotheses 1 and 2. Finally, social consensus was entered into the model in the third step, causing a significant change in  $R^2$ . Social consensus was associated with increased ethical issue recognition, which provided partial support for Hypothesis 3. It should be noted that, although significant, the beta weights were low.

Ethical intention was specified as the dependent variable in the second regression framework (Part B). The controls were entered into the model first, which did not result in a significant change in  $R^2$ . Recognition of an ethical issue

Table 1 Variable descriptive statistics and correlations

Variable	М	SD	N	1	2	3	4	5	6	7	8
1. Recognition of an ethical issue	4.86	1.75	384	_							
2. Ethical intention	3.60	1.84	385	.26***	_						
3. Idealism	5.16	1.15	387	.18***	.08	_					
4. Formalism	6.08	.94	387	.14**	.02	.11*	_				
5. Social consensus	3.13	.66	387	.17***	.08	.15*	.07	_			
6. Gender <sup>a</sup>	1.33	.47	387	.12*	.08	.31***	.12*	.08	_		
7. Full-time work experience <sup>b</sup>	2.02	1.54	387	12*	00	03	06	03	21***	_	
8. Social desirability	4.51	2.27	387	.02	.07	.19***	.05	.01	.02	.11*	_

<sup>\*\*\*</sup> p < .001; \*\* p < .01, \* p < .05

b In years



<sup>&</sup>lt;sup>a</sup> 1 = male, 2 = female

**Table 2** Hierarchical regression analysis

Dependent variable	Recognition of	of ethical issu	Ethical intention (Part B)			
Independent variable(s):	β	b	SE	β	b	SE
Gender <sup>a</sup>	.10	.37	.19	.08	.33	.20
Full-time work experience <sup>b</sup>	11*	12	.06	.01	.01	.06
Social desirability	.03	.02	.04	.07	.06	.04
Step 1 $\Delta R^2$	.03*			.01		
Idealism	.15**	.23	.08			
Formalism	.11*	.21	.09			
Recognition of an ethical issue				.26***	.27	.05
Step 2 $\Delta R^2$	.03**			.06***		
Social consensus	.14**	.37	.13			
Idealism				.00	.00	.09
Formalism				02	05	.10
Step 3 $\Delta R^2$	.02**			.00		
Social consensus	_	_	-	.04	.10	.14
Step 4 $\Delta R^2$	_			.00		
Model $F$	5.38***			4.58***		
Constant		1.54	.76		1.65	.81
Adjusted $R^2$	.06			.06		
N	384			382		

<sup>\*\*\*</sup> p < .001, \*\* p < .01, \* p < .05; final constant values significant at .05 level

was entered into the model in the second step, which generated a significant change in  $R^2$ . Ethical issue recognition was associated with increased ethical intention, which provided support for Hypothesis 4. Idealism and formalism were entered next, which did not generate a significant change in  $\mathbb{R}^2$ . It should be noted that social desirability was not significant with regard to all variables with the exception of idealism. Finally, social consensus was entered into the model in the last step, and this addition did not cause a significant change in  $R^2$ . Overall, even though the  $R^2$  values were relatively low, which is typical in ethics research, both hierarchical regression models provided some statistical support for the study's hypotheses. The results should be interpreted with caution given the modest amount of explained variance captured in the regression models, as well as some of the weak parameter estimates identified.

# Post Hoc Analysis

Given that idealism, formalism, and social consensus variables were unrelated to ethical intention in the hierarchical regressions, a post hoc analysis was initiated to determine if recognition of an ethical issue mediated the relationships between the independent variables and the dependent variable. Using the Preacher and Hayes (2008) method for assessing mediation in regression, three separate models were specified, each with a different independent variable

(idealism, formalism, and social consensus), but all three containing the same proposed mediator variable (recognition of an ethical issue) and dependent variable (ethical intention). Using decision criteria outlined by Zhao et al. (2010, p. 201), these models were evaluated to determine whether mediation was indeed present.

The first model specified idealism as the independent variable and produced a confidence interval that did not contain 0 (lower = .0224, upper = .1362), which indicated that the indirect effect  $(a \times b)$  was significant; however, the total impact of idealism on ethical intention (or the c path) was not significant, indicating indirect-only mediation in this model. The second model specified formalism as the independent variable and produced a confidence interval that did not contain 0 (lower = .0069, upper = .1368), which indicated that the indirect effect was significant. The total impact of formalism on ethical intention was not significant, once again indicating indirect-only mediation. Finally, the third model specified social consensus as the independent variable and produced a confidence interval that did not contain 0 (lower = .0430, upper = .2148), which showed that the indirect effect was significant. The total impact of social consensus on ethical intention was not significant, highlighting indirect-only mediation. Consequently, the independent variables as a whole appeared to operate through recognition of an ethical issue to influence ethical intention. The following section provides a discussion of the research implications, limitations of the study, and suggestions for future inquiry.



<sup>&</sup>lt;sup>a</sup> 1 = male, 2 = female

b In years

#### Discussion

With regard to moral awareness, the results of this study contribute to the field of consumer ethics by showing that an individual's moral absolutist ideology (idealism and formalism) combined with a perceived social consensus against the act of sharing copyrighted files in a subscription-based P2P environment significantly drive individuals to recognize that the act is indeed unethical. Also evidenced was a relatively strong belief that a consensus exists in society that P2P file sharing of copyrighted media in a subscription-based system is ethically wrong. This is contrary to findings by Lysonski and Durvasula (2008) that downloading behaviors [in an MP3 environment] are driven by "a strong belief that it is not ethically wrong" (p. 167). Another study on MP3 downloading (although not in a P2P environment) has also revealed inconsistencies in moral reasoning between what respondents believe they should do, and what they intend to do in certain contexts (Altschuller and Benbunan-Fich 2009). Our findings help to extend the work by other researchers (Shang et al. 2008) as to which motives and norms contextually impact moral awareness with regard to P2P environments. It should be noted that although moral awareness was significantly affected by its antecedent variables, respondents only slightly agreed that the vignette involved an ethical problem/dilemma. The subscription-based nature of the P2P environment portrayed in the scenario combined with the fact that there was no mention of legality, may have contributed to the lower levels of recognition that the act was unethical. It has been suggested that individuals who pay for using a P2P system may be less aware the act of downloading music would be considered an act of piracy if the scenario used does not explicitly mention legal concerns (Shang et al. 2008).

With regard to intention to share copyrighted materials through a P2P environment, our findings show idealism, formalism, and perceived social consensus had no direct influence. This finding was unexpected given that a number of studies using a variety of ethical scenario contexts have found supportive links between moral orientations and behavioral intent (Lysonski and Durvasula 2008; O'Fallon and Butterfield 2005) and perception of peer group consensus (rather than general societal consensus) positively related to behavioral intent with regards to MP3 downloading (Lysonski and Durvasula 2008). However, our post hoc mediation analysis did reveal an indirect-only relationship where idealism, formalism, and social consensus operated through recognition of an ethical issue to impact ethical intention. In response to the mixed findings regarding antecedents of ethical intent in P2P file sharing environments and in search of more clarity, some researchers have called for the field of study to parse out sub-streams of research based on the item being down-loaded or shared, noting that downloading music in a P2P environment may be fundamentally different from down-loading software, audio or other media files (Gopal et al. 2004; Lysonski and Durvasula 2008). Finally, our findings show an inverse relationship between years of work experience and ethical use of copyrighted media, consistent with findings of some other studies (Moores and Esichaikul 2011).

## **Managerial Implications**

These findings may aid marketers in considering methods for marketing music or other digital networks, as well as for de-marketing piracy of copyrighted materials. There appears to be a "disconnect" between consumers' basic moral values and beliefs and their behavior in downloading and sharing music files. Our findings suggest that, for those consumers with strong formalism and idealism orientations, belief in a social consensus that P2P file sharing is wrong results in recognition that this activity is unethical.

Sheth and Frazier's (1982) model of strategy mix choice for planned social change provides some insight into how different segments of consumers may be most effectively approached with respect to the music piracy issue. Sheth and Frazier's model examines consumer segments based on their attitudes toward a social action and their behavior with regard to this action. Appropriate marketing strategies are targeted to segments based on their combination of attitude and behavior. The music piracy situation is one of not engaging in a negative behavior, so in order to avoid the double negative, the term "nonpiracy behavior" in used.

Applying the Sheth and Frazier (1982) approach, for consumers with positive attitudes toward nonpiracy and who engage in nonpiracy behavior, reinforcement would be the appropriate strategy. For those with negative attitudes toward nonpiracy, but who do engage in the nonpiracy behavior, a rationalization approach to change attitude is prescribed. Communication related to a social consensus against piracy may help to raise awareness among these consumers. Those who have positive attitudes toward nonpiracy but still engage in music piracy behavior would be offered inducements to change behavior. Those with negative attitudes and behavior, in other words, those who see nothing wrong with piracy and engage in it, would be faced with a confrontation strategy, such as mandatory rules (enforcement of penalties).

As noted earlier, this study extends the work of previous researchers by shedding additional light on the factors affecting consumers' decisions regarding P2P file sharing. Our study shows that an individual's moral absolutist



ideology (idealism and formalism) combined with a perceived social consensus against the act of sharing copyrighted files in a subscription-based P2P environment significantly drives individuals to recognize that the act is unethical, which is different from Lysonski and Durvasula's (2008) finding that downloading behaviors are driven by a belief that it is not ethically wrong. Thus, our findings suggest that some consumers do not believe music piracy is ethically right, but they might engage in this behavior anyway. In dealing with such a segment, Sheth and Frazier's model would suggest inducements be used to encourage consumers to change their behavior. These inducements might take the form of social controls, delivery systems, economic incentives, or economic disincentives (Sheth and Frazier 1982). Interestingly, on an international scale, companies such as Microsoft, Philips, and Warner Bros. are moving beyond legalistic methods for protecting intellectual property to embrace innovative managerial approaches in countries such as China that have not historically shared the Western view of piracy and counterfeiting (Anonymous 2009; Cateora et al. 2011; Chmielewski 2008; Lam and Graham 2007). For example, Warner Bros. has cut prices of DVDs in China and distributes them within days of their release in theaters in China, earlier than anywhere else in the world, in order to keep the sales themselves rather than see them go to DVD pirates (Chmielewski 2008). Sales of inexpensive single music tracks on websites today may serve the same purpose; when a song can be purchased for a price as low as 49¢ on Amazon.com, this may make piracy less attractive.

While criminal prosecution does occur as a penalty for music piracy, there are advocates within the recording industry that also encourage a softer approach. Web Sheriff, founded by intellectual property lawyer John Giacobbi, illustrates this strategy. Giacobbi's preference is to, "persuade rather than prosecute, to educate rather than incarcerate" (Lewis 2011). Web Sheriff has a zero-tolerance approach toward commercial music pirates, but typically seeks redress against individuals in civil rather than criminal court.

With respect to the fourth segment, exhibiting negative attitudes and behaviors toward nonpiracy, confrontation, perhaps in the form of prosecution, may be the only effective strategy. The RIAA, along with several other industries reliant upon intellectual property for their survival, have since 2006 been authorized to use the FBI Anti-Piracy seal to communicate the seriousness of piracy (Federal Bureau of Investigation 2011). The motion picture industry has developed straightforward messages on rental videos that equate piracy with other forms of stealing. This type of communication may be particularly effective for the first segment, where reinforcement is the primary approach. For the fourth segment, requiring confrontation,

it serves more as a warning of the penalty to be faced, "up to 5 years in federal prison and a fine of \$250,000" (Federal Bureau of Investigation 2011).

In summary, the findings of this study may aid in providing insight into the views of consumers toward music piracy. Among consumers with strong formalism and idealism orientations, reinforcement of a social consensus that piracy is ethically wrong can be an effective strategy. Building awareness of this behavior as both illegal and unethical should convince this group not to engage in piracy. For other segments, other approaches may be more effective.

#### **Future Research and Limitations**

There are several areas that may be of interest to future researchers. Perceived behavioral control (PBC) refers to perceptions of the ease or difficulty of practicing a specific behavior, encompassing both the individual's ability and the resources required to practice the behavior successfully (Chang 1998; Cronan and Al-Rafee 2008). The scenario used in our study presented the ease with which the user could join the P2P network and access/share files with other users, arguably a reflection of such PBC. Future studies could look at the mediating effect of PBC on the ethical decision-making process, as some researchers have found it to predict intentions to pirate copyrighted media (Chang 1998; Cronan and Al-Rafee 2008). Some promising research involving the ideology of consumer rights as a powerful antecedent to moral intentions may contribute to the understanding of this complex issue. Although Shang et al. (2008) did not test for a direct link between a consumer rights ideology and moral intent, they did find that "Deontological evaluations are influenced by belief in the ideology of consumer rights...its impacts are larger than most of the other antecedents" (Shang et al. 2008, p. 359).

This study has several limitations. A cross-sectional research design was used, which cautions against drawing conclusions about the causality of antecedent variables. There is risk of same-source and social desirability biases due to the nature of self-reported data. A social desirability measure was included as a control variable and had no significant relationship with formalism, perceived social consensus, recognition of a moral issue, or ethical intention; however, social desirability was significantly related to idealism. In addition, the social desirability scale failed to meet accepted reliability standards, which may be a sample-specific phenomenon given the use of the short form of the MCSDS, or attributable to deficiencies in the scale itself as recent research seems to suggest (Loo and Loewen 2004, Ventimiglia and MacDonald 2012). The scenario did not specify the legality of the situation, so



respondents may have assumed that since they could subscribe and pay for the service it must be legitimate (Chiang and Assane 2009). This may explain the lack of relationship between idealism, formalism, and intent; it would not explain the moderate level of recognition that the act was unethical. The scenario in our study referenced multiple file types as the potential downloadable content—music, program, movie, and other files—rather than focusing on a single file type. Gopal et al. (2004) found that music piracy in a P2P network was underscored by dynamics unique from that of buying pirated music CDs or from software piracy.

Future research should use multiple scenarios, each focusing on a different type of media category, and seek to collect data from a more heterogeneous sample. In terms of antecedents to the ethical decision-making process, the driving forces behind illegal P2P network file sharing may vary depending upon the type of file shared. Some research infers that users may care more about piracy when they are considering a download of software than when considering a download of music (Shang et al. 2008). This study did not control for prior piracy behaviors, but one study has found evidence that prior piracy behaviors predict future intentions to pirate (Cronan and Al-Rafee 2008). Although the sample consisted of a homogeneous student sample, it can be argued that most have had experience with downloading music or other digital files and thus, generalizability of the results may be more favorable due to the scenario's consumer orientation. Other studies have found that generalizability may not be limited when using student samples to study the ethical decision-making process itself (May and Pauli 2002). However, it is recommended that future studies are conducted using different samples to strengthen the external validity of the findings. Doing so might also increase the variability of the factors examined, thus potentially increasing the predictive capabilities of the statistical models specified. The predictor variables accounted for 6 % of the variance in ethical decision making, so it can be argued that use of a student sample was not detrimental in this study; however, the modest strength of the models also have to be recognized, and results should be viewed with some degree of caution. Future research should seek to unveil the complexities between these and other factors that may simultaneously impact the ethical decision-making process as it relates to P2P network sharing of copyrighted media files.

In summary, this study provides useful insights into the combined effects of idealism, formalism, and perceived social consensus on the recognition of an ethical issue and ethical intention. Collectively, these are constructs around which marketers can develop awareness and educational programs to enhance P2P network user sensitivities to the recognition that piracy is unethical; however, these are not

mechanisms by which marketers can reverse the growing trend in the sharing of copyrighted media files on P2P networks. As a result, the findings have theoretical and practical implications for researchers examining the ethical decision-making process and influence of users in a P2P environment.

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