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Consumers' responses to opposing copyright enforcement regimes: When cognitive appraisal leads to compliance vs reactance

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ABSTRACT

Academic studies reveal that copyright enforcement regimes are not reaching their full potential in lowering digital piracy rates. Still, very few demand-side studies tap into the reasons why this occurs. We conducted a scenario-based experiment on a sample of 401 consumers engaged in content streaming. We draw on cognitive appraisal theory to reveal that digital piracy beliefs shape consumers' emotional reactions (positive emotions vs. indignation) differently in opposing copyright enforcement regimes. Through reactance theory, we unfold consumers' coping mechanisms through which they comply with or show reactance to the designated regime (measured by intention to use illegal or legal streaming services). Our findings show that positive digital piracy beliefs drive positive emotions in loose and indignation in tight copyright enforcement regime. In terms of coping, we reveal that compliance to the regime is driven by positive while negative emotions drive reactance. Our study provides valuable insights by revealing antecedents that have not been previously addressed in digital piracy literature. Findings provide value to policymakers and managerial practice to better understand digital piracy's realities and redesign their policies and strategies accordingly.

1. Introduction

Digital piracy is still an ongoing issue that occupies the attention of legislators, consumers, and legal firms competing against it. Over the years, as technology has evolved, the channels of digital piracy have also changed. At the same time, today, these activities occur dominantly online through applications for illegal content streaming (Forbes, 2017). Today, the entertainment industry is the most endangered one, and the most commonly pirated content are movies, television series, games, and sporting events. According to recent statistics, although digital piracy has slightly dropped due to the advent of affordable streaming services (EUIPO, 2019), digital piracy is still massive in numbers. For instance, digital piracy takes away roughly $30–70 billion in lost revenues (GIPC Online, 2019). Researchers made a big step forward in understanding why people consume the products and services that result from these activities (Eisend, 2019; Koay et al., 2020; Lowry et al., 2017). These studies showcase solid empirical evidence that deterrence mechanisms, empowered by a robust copyright enforcement framework, are most effective in preventing digital piracy (Kartas & Goode, 2012). However, some academic viewpoints and empirical evidence refute this, which requires further scrutiny.

To analyze how consumers respond to copyright enforcement, the majority of studies used scenarios in which the conditions of the legislative environment go in the direction of tougher sanctions to increase the severity and the vulnerability of engaging in digital piracy (Chiang & Assane, 2009; Chiou et al., 2011; Higgins et al., 2005; Liao et al., 2010). However, some studies warn that rigid copyright enforcement regimes do not increase the profit of legal providers (Tunca & Wu, 2013), nor do they significantly reduce the level of digital piracy (Aguiar et al., 2018). On another note, many criticize the tightening of the copyright enforcement regime, limiting the public's access to cultural and knowledge content (Fredriksson, 2020). Yet, the insights from demand-side studies on why copyright enforcement regimes fail to reach their goal (prevent digital piracy), to this day, remains relatively scarce (e.g., Darmon & Le Texier, 2016; McKenzie et al., 2019).

Scant research has considered consumers' different, often polarized attitudes, beliefs, and reactions to digital piracy. A study by De Corte and Van Kenhove (2017) indicated that whether digital piracy is perceived as illegal differs between segments of people. While most research focuses on segments that exclusively and predominantly consume pirated products digitally, very little research focuses in parallel on consumers who strongly support legal alternatives (Culiberg et al., 2016; Hampton-Sosa, 2017; Sardanelli et al., 2019). However, to the best of our knowledge, no studies simultaneously juxtapose how consumers with

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antithetical beliefs and attitudes about digital piracy show preferences between legal and illegal options.

Consequently, digital piracy is becoming a social issue that polarizes the public (Beyer & McKelvey, 2015; McKelvey, 2015). Social issues evoke emotional reactions (Marcus, 2000), where divided ideological camps express different emotional states on current social realities (Petersen, 2010). Emotions are affective processes that can be a trait or state (triggered by specific environmental events) (Forgas, 1992). According to cognitive appraisal theory (Lazarus, 1991), beliefs about a particular issue or event form state emotions that later determine the coping mechanisms of such consumers. For instance, cognitive appraisal theory postulates that positive emotions emerge when an event is congruent with an individual's beliefs. In case of misalignment, negative emotions emerge (Lazarus, 1991). Hence, given the high polarization in the general public on digital piracy, it is possible to speculate that as a result of heterogeneity in beliefs, consumers would have different emotional reactions to changes in copyright enforcement regimes. However, such propositions haven't yet been tested in the digital piracy literature.

Following the identified gaps in the literature, this paper aims to answer the following research question: *To what extent do different forms of copyright enforcement regimes affect consumers' emotional reactions and subsequent intentions to use illegal and legal streaming services?* We draw on cognitive appraisal (Lazarus, 1991) and reactance theories (Brehm & Brehm, 2013) to investigate how consumers' beliefs about digital piracy trigger emotional reactions that shape consumers' behavioral intentions towards legal and illegal streaming services. To address the heterogeneity of emotional consumer reactions and subsequent coping intentions, we design two hypothetical scenarios of changes in the copyright enforcement regime, the one *loose* without sanctions and the one *tight* that plans to introduce more severe financial sanctions. Our findings show that consumers who have positive beliefs about digital piracy tend to experience positive emotions under a loose regime. On the other hand, these consumers have increased indignation and, contrary to our hypothesized expectations, positive emotions in a tight copyright enforcement regime. Second, we showcase that secondary appraisal (path of emotions to coping) is highly contextual to the copyright enforcement regime. Among consumers expressing high positive emotions, we observe increased intention for compliance (a habitual continuation of preferred streaming usage aligned with their beliefs). On the contrary, we find that reactance prevails among consumers who express indignation.

Consequently, our study yields several contributions to theory and digital piracy literature. First, we use the cognitive appraisal to scrutinize consumers' emotional and behavioral responses to digital products within polarized copyright enforcement regimes. Our study extends digital piracy literature by further illuminating the determinants of consumer choices in the realm of digital content (Eisend, 2019; Koay et al., 2020; Lowry et al., 2017). Second, our study also provides critical explanations on somewhat counterintuitive insights from prior literature on why copyright enforcement regimes fail to reach their full potential in increasing compliance (Aguiar et al., 2018; McKenzie et al., 2019; Tunca & Wu, 2013). Specifically, our study shows that such institutional designs (whether loose or tight) trigger indignation and subsequently the reactance response by some consumers. Our inquiry also extends the literature on forms of consumer misbehavior in access-based consumption (Schaefers et al., 2016). Whereas previous studies dominantly used the lens of ethical, deterrence, and rational choice models to explain why consumers misbehave (Jin et al., 2020), we show that consumers' emotional appraisal can drive engagement with digital piracy, either through compliance or reactance. Third, our study adds to the literature investigating the role of cognitive appraisal in consumer behavior. Unlike previous studies dominantly focusing on anger, we observe how indignation creates harm aimed at the "wrongdoer" through reactance in both types of scenarios of copyright enforcement (tight vs. loose) (Miceli & Castelfranchi, 2019). Overall, our results provide practical implications for policymakers in designing effective ways to battle the still highly pertinent issue of digital piracy by taking into account inherent differences among consumers.

2. Conceptual development

2.1. Digital piracy and copyright enforcement regime

Conceptually, digital piracy can be classified as consumer misbehavior because it is an activity that intentionally goes against established norms and regulations (Jin et al., 2020). Digital piracy has been a topic in the academic literature for more than two decades. During this period, valuable insights into consumption issues in this domain emerged. Using different theoretical frameworks, researchers gained insight into consumers' attitudes, intentions, and behaviors concerning digital piracy. Although the focus was exclusively on the consumption of digital pirated products and services (Eisend, 2019; Koay et al., 2020; Lowry et al., 2017), some research has begun to explore the determinants that underlie consumer's transition to legal alternatives (Borja & Dieringer, 2016; Dilmperi et al., 2017; Sardanelli et al., 2019). These studies, however, reveal that digital piracy is a subject that induces polarized views in public. While some people consider digital piracy as nothing harmful (Krawczyk et al., 2015; Peace et al., 2003), some find higher value in endorsing legal alternatives (Mckenzie et al., 2019; Sardanelli et al., 2019). The recent study by Koay et al. (2020) made an effort and unified different theoretical approaches to offer more detailed explanations of what drives the digital piracy outcomes. They conclude that future studies should apply other theoretical lenses to understand further the underlying phenomena of consumers' engagement with digital piracy.

Digital piracy triggers awareness from legislators who are continuously looking for the most effective ways to tackle it. A great example is a recent agenda of Members of the European Parliament on fighting streaming piracy more effectively (European Parliament, 2021). Although consumers feel they can conceal their illegal activities in the digital environment (Larsson et al., 2012), the countries are working on institutional designs that reduce digital piracy. As an institutional design protecting intellectual property rights arising from digital products and services, many countries have aligned their legal systems and adopted copyright enforcement regimes to combat digital piracy. Yet, academia has substantial controversy on whether copyright enforcement effectively serves the needs of consumers and legal companies in creative industries.

Against this backdrop, there have been strong voices in public indicating that hyperregulation surrounding copyright has been limiting consumers' access to cultural and media content (Fredriksson, 2020). Extant studies question the potential benefits that copyright enforcement can bring to legal firms (Tunca & Wu, 2013) and showed that legal sanctions could not prevent consumers from continuing using pirated content (Aguiar et al., 2018) at least in a significant proportion (McKenzie et al., 2019). The digital piracy literature has treated copyright enforcement regimes indirectly through approaches such as deterrence theory (Chiu, Hsieh, & Wang, 2008; Coyle et al., 2009; Higgins et al., 2005; Peace et al., 2003; Trang & Brendel, 2019; Yoo et al., 2014). These studies reveal that punishment vulnerability and severity are the most effective tool in lowering piracy outcomes (Eisend, 2019; Mckenzie et al., 2019). However, some studies show that, counterintuitively, more vigorous enforcement efforts can have minimal impact on lowering the digital piracy rates (Aguiar et al., 2018) and, in some way, can even increase piracy tendencies (Sinha & Mandel, 2008). Similarly, firms can utilize more robust digital rights management (DRM) to prevent unauthorized usage and copying of the content in response to digital piracy. Yet, studies in this stream of literature warn that tighter DRM approaches can not yield benefits to both copyright owners and consumers (Minniti & Vergari, 2010; Vernik et al., 2011), while a DRM-free environment can lower the digital piracy rates (Sinha,

Machado, & Sellman, 2010). Studies have shown that a tighter DRM system can support formal firms when copyright enforcement is low (Zhang et al., 2021).

The unequivocal findings suggest that demand-side reactions to potential public or firm-induced copyright enforcement policies to battle digital piracy are heterogeneous. In support of this notion, De Corte and Van Kenhove's (2017) study showcased that many consumers might be familiar with the idea that digital piracy is unethical and illegal (Jacobs et al., 2012), but they still engage with it. Whether digital piracy is justified has triggered a debate in which camps at extreme ends try to support their ideologies (Beyer & McKelvey, 2015). Such insights hint at the possibility that consumers could have divergent feelings on the appropriateness of the copyright enforcement regime, yet no studies address this aspect in literature. Naturally, the ultimate goal of a tight copyright enforcement regime is to enforce copyright protection of digital content. In contrast, a loose copyright enforcement regime aims to remain ignorant of copyright violations. To investigate this aspect further, we draw on cognitive appraisal theory (Lazarus, 1991) and explore how potential changes in copyright enforcement regime (loose vs. tight) influence consumers' emotional reactions and subsequent behavioral intentions who have positive/negative beliefs about digital piracy.

2.2. Cognitive appraisal theory

Cognitive appraisal theory is concerned with how individuals' cognitive evaluations (beliefs) about certain events elicit specific emotional reactions and subsequent coping (Lazarus, 1991). Cognitive appraisal entails a cognitive-affective net in which an individual's goals, beliefs, and personality traits shape emotional reactions that lead to particular behavior or action (Lazarus & Folkman, 1984). According to Lazarus (1991), cognitive appraisal entails primary and secondary stages. In primary appraisal, the individual evaluates the alignment of their beliefs with the event's properties. In the secondary appraisal, the individual assesses resources and potential to craft an appropriate coping strategy (Lazarus, 1991). Cognitive appraisal has been extensively used in literature to illuminate how certain consumer beliefs elicit emotional reactions and coping mechanisms, thus validating the usage of this theory in various consumption contexts (Nyer, 1997; Romani et al., 2012; Ruth et al., 2002) including digital (Éthier et al., 2008).

Emotions are micro-foundations that drive consumer decisions (Laros & Steenkamp, 2005). The literature has investigated a wide array of positive (e.g., joy, excitement) and negative emotions (e.g., sadness, anger, embarrassment, etc.) resulting from cognitive appraisal (Lazarus, 1991). While positive emotions can be universally considered for many different consumer aspects (Smith & Ellsworth, 1985), the negative emotions with hostile flavor differ in terms of their overarching impact. Both anger and indignation are considered hostile emotions and are sometimes used interchangeably in consumer research (Joireman et al., 2013; Sembada et al., 2016). Yet, unlike anger, indignation entails a subtype of anger caused by unfair or wrong (Miceli & Castelfranchi, 2019) and is especially relevant when the harm and wrong concern the broader social group (Roh, 2017). The notion of wrongfulness tightly connects with the individual's moral beliefs and response to the act of wrongdoing (Rawls, 1971). Consequently, the individual expresses indignation when wrongdoing goes against their conviction of righteousness (Lindebaum & Geddes, 2016).

Against this backdrop, indignation would be highly relevant in digital piracy because there is a high polarization in assessing whether digital piracy is justified. To this end, some researchers valorize digital piracy as a venue where proponents and opponents juxtapose their ideologies (McKelvey, 2015). Opponents readily advocate that digital piracy is the theft of intellectual property rights, while proponents think there should be free access to digital content as a public good (Jääsaari & Hildén, 2015). Consequently, researchers commonly investigate social issues through theories built on emotional appraisal (Best & Krueger, 2011; Valentino et al., 2011; Wagner, 2014), making it a suitable theoretical lens for our inquiry.

To further illuminate the emotional reactions to digital piracy, we focus on the highly relevant event for consumers - the properties of the copyright enforcement regime. Hence, our model envisions that divided beliefs on digital piracy lead to heterogeneous emotional reactions to different copyright enforcement regimes (tight vs. loose). Positive emotions emerge when the copyright enforcement regime is congruent with individuals' beliefs (Lazarus, 1991), thus impacting favorable coping strategies through compliance. On the other hand, the indignation would result in the consumer's reactance. In Table 1, we present a classification of emotional responses and coping assessed through beliefs about digital piracy on one axis and copyright enforcement regimes on the other. We explain the theoretical mechanisms of primary and secondary appraisal that build our model in Fig. 1.

2.2.1. Beliefs about digital piracy and emotional reactions – primary appraisal

The primary appraisal concerns a subjective interpretation of an event (Nyer, 1997). In primary appraisal, individuals assess whether the event produces harmful, threatening, or benign consequences (Lazarus, 1991). If the event is relevant to well-being and congruent with their beliefs, they will respond with positive emotions. In contrast, incongruence elicits negative emotions (Smith & Ellsworth, 1985). Digital piracy literature has focused on consumers' beliefs about digital piracy (Eisend, 2019). Findings revealed that attitudes and norms about digital piracy are the strongest predictors of digital piracy intentions and behavior (Aleassa et al., 2011; Phau et al., 2014; Phau & Ng, 2010; Yoon, 2011). To this end, literature investigates various antecedents of digital piracy attitudes, including past piracy behavior (Olivero, Greco, Annoni, Steca, & Lowry, 2019), perceived cost-benefit ratio (Yoon, 2011), morality (Tjiptono et al., 2016), ethical judgment (Bateman et al., 2013), neutralization mechanisms (Kos Koklic et al., 2016), deterrence (Yoo et al., 2014), and religiosity (Arli et al., 2018).

Overall, the attitudes are outcomes of consumer beliefs and emotions and likely represent a basis for assessing the copyright enforcement regime. The consumer behavior literature shows that negative emotions such as anger and indignation emerge when incongruence between goals and the event exists, whereas positive emotions are more likely to occur when congruency is achieved (Nyer, 1997; Ruth et al., 2002). Although indignation and anger are both based on the notion of harm (Miceli & Castelfranchi, 2019) produced by external conditions (Stephens & Gwinner, 1998), indignation also entails the idea of *wrong*. In other words, people would express indignation when they also perceive harm as wrongdoing. Empirical evidence reveals that consumers believe that digital piracy isn't harmful (De Corte & Van Kenhove, 2017; Peace et al., 2003) and is righteous (Beyer & McKelvey, 2015). We expect this group of consumers to consider tightening the copyright enforcement regime as a direct attack on their freedom (Jääsaari & Hildén, 2015).

Hence, we posit that when the copyright enforcement regime aligns with consumers' beliefs about digital piracy, positive emotions will emerge, whereas the misalignment would incur indignation. Consumers favoring digital piracy will thus assess a loose copyright enforcement regime as welcoming and consequently experience positive emotions. These consumers would also see a tight copyright enforcement regime

Table 1
Typology of consumer's emotional responses and coping in opposing copyright enforcement regimes.

		Copyright enforcement regimes	
		Tight	Loose
Digital piracy beliefs	*Positive*	Indignation reactance	Positive emotions compliance
	Negative	Positive emotions compliance	Indignation reactance

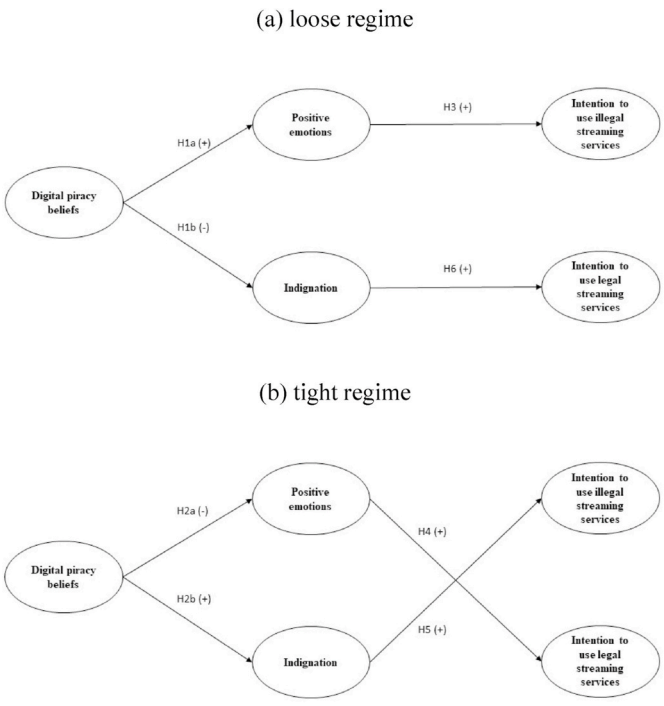

Fig. 1. Conceptual model.

threatening and would express indignation. On the contrary, consumers who oppose digital piracy will welcome a tight copyright enforcement regime and express positive emotions. The same consumers will also see loose copyright enforcement regime as threatening and thus express indignation.

H1. In a loose copyright enforcement regime, positive digital piracy beliefs will be: a) positively related to positive emotions and b) negatively related to indignation.
H2. In a tight copyright enforcement regime, positive digital piracy beliefs will be: a) negatively related to positive emotions, and b) positively related to indignation.

2.2.2. Coping through compliance or reactance – secondary appraisal

The secondary appraisal evokes the individual's urge to apply a specific coping strategy based on emotional reaction (Scherer, 1984). We explain how consumers respond to different copyright enforcement regimes through tenets of reactance theory (Brehm & Brehm, 2013). Reactance theory has two essential assumptions (Rosenberg & Siegel, 2018). First, the theory posits that consumers perceive some behavioral choices as a representation of their freedom in which they can participate at any given moment (Brehm & Brehm, 2013). The notion of freedom aligns with an individual's beliefs on appropriate and accessible choices. Second, if people perceive a threat to their freedom by conducting desired behaviors, they find this behavior even more attractive (Wolburg, 2006) and as a means to restore the lost freedom (Brehm & Brehm, 2013). Henceforth, it is reasonable to expect that people who engage in digital piracy consider it a righteous and justified behavior that supports their freedom of choice (Jääsaari & Hildén, 2015). When freedom is threatened, the consumers are prone to develop psychological reactance (Lee et al., 2010; Youn & Kim, 2019). Researchers explained the switch to digital piracy through reactance theory when consumers feel that legal digital content is overpriced (Kukla-Gryz et al., 2020).

Yet, studies show that reactance can be transformed to compliance if a more significant similarity exists between the respondent and a source of communication (Silvia, 2005). In mainstream consumer behavior studies, it was shown that positive emotions lead to compliant reactions where consumer continues using the preferred brand or product (Watson & Spence, 2007). By following this logic, consumers expressing positive emotions about the copyright enforcement regime would thus engage in compliant behavior because their original beliefs and convictions in digital piracy align with it. In this line of reasoning, we expect that consumers who assess copyright enforcement regimes favorably and consequently express positive emotions will show habitual behavior aligned with their usual choices. Consumers who are supporters of digital piracy would welcome a loose copyright enforcement regime by increasing the intention to consume illegal streaming services. On the other hand, the consumers who are opponents of digital piracy would cherish a tight copyright enforcement regime and increase their intention to consume legal streaming services.

H3. In a loose copyright enforcement regime, positive emotions of digital piracy supporters are positively related to illegal streaming service consumption intention.
H4. In a tight copyright enforcement regime, positive emotions of digital piracy opponents are positively related to legal streaming service consumption intention.

However, consumers experiencing indignation would show a response that resists the dominant discourse portrayed in the copyright enforcement regime. To this end, consumer behavior literature has used cognitive appraisal to scrutinize various aspects of how consumers utilize their anger when coping with consumption situations and events that are dissatisfying for them (Bougie et al., 2003; Donoghue & de Klerk, 2013; Romani et al., 2012; Ruth et al., 2002; Stephens & Gwinner, 1998; Su et al., 2018). Although anger and indignation comprise a more general anger concept (e.g., Joireman et al., 2013), they differ in their overarching influence in shaping consumer coping responses (Lindebaum & Geddes, 2016). While anger would lead to retaliatory revenge responses to cause harm (Joireman et al., 2013), the indignation would entail reactance as damage targeted at the "wrongdoer" (the regime) to restore and reaffirm the norm (Miceli & Castelfranchi, 2019; Wolburg, 2006). Accordingly, we posit that the indignant consumers will respond against the dominant discourse enforced by the copyright regime. In the case of a tight copyright enforcement regime, the consumers expressing indignation would thus increase their intention to use illegal streaming services. On the contrary, indignant consumers would increase their intention to use legal streaming services in the loose copyright enforcement regime. Thus we hypothesize:

H5. In a tight copyright enforcement regime, the indignation of digital piracy supporters is positively related to illegal streaming service consumption intention.
H6. In a loose copyright enforcement regime, the indignation of digital piracy opponents is positively related to legal streaming service consumption intention.

3. Method

3.1. Participants and procedure

We collected data for this study by employing a structured survey questionnaire with a convenience sampling strategy. Before data collection, we conducted a series of preliminary procedures to achieve face and content validity and secure that questions were easy to understand. We decided to focus on movie and TV show streaming services since it has become a dominant channel for consuming various digital content globally (Ahlijian, 2021; Khalil & Zayani, 2021). Also, recent reports suggest that the streaming industry provides popular illegal alternatives consumed significantly (European Union Intellectual Property Office, 2019). Eventually, we shared a survey link in one Croatian social media group that brings together individuals who share interests in watching movies and TV shows. Before posting the survey link, we

received approval and support letter from the group's administrators.

The survey was active for one month. Voluntary participants accessed an online survey platform where they completed a consent form which informed participants that the study follows rigorous academic and ethical standards. After completing the initial set of survey questions on digital piracy beliefs, participants had to read the hypothetical scenario in the form of an article from a professional IT magazine regarding the legislative changes that would impact the copyright enforcement policies in the Republic of Croatia. Participants were randomly exposed to one of two scenarios (see Appendix). The first scenario introduced a loose copyright enforcement regime that envisioned no penalties where authorities aimed to adjust the copyright laws that envisioned no digital piracy prosecution. The narrative stated that the designated changes would come into motion due to insistence from the green-liberal bloc and pirate parties in European Parliament. The second scenario introduced a tighter copyright enforcement regime that entails severe prosecution through financial fines for digital piracy and copyright violation (3.000 Euros). The first part of the fictional articles covered the facts and figures about digital piracy. The second part focused on introducing copyright regime changes that would come in motion by following the new directive from the European Commission. The complete narrative of both scenarios is showcased in Appendix.

After reading the designated scenario, the respondents answered questions about their emotional appraisal and their future intentions to engage with illegal and legal streaming services. Such an approach has been common in digital piracy studies (Aleassa et al., 2011; Lowry et al., 2017; Van Rooij et al., 2017). Overall, in total, we generated valid 401 responses. This study followed experimental design principles in which 194 respondents were randomly assigned to the tight regime scenario, while 207 were assigned to the loose regime scenario. We compared the respondents in two groups across gender, age, and percentage of illegal streaming and found no statistical differences ($p > 0.05$). In Table 2, we provide respondent demographics. The majority of our respondents belong to the age group 20–29, and according to recent statistics, this age group most frequently streams content every day (Statista, 2021).

3.2. Measurement operationalization

The measures employed in the study are the ones that proved their validity and reliability in previous studies. To measure *beliefs,* we asked respondents to assess the illegal vs. legal streaming services along with a 5-point semantic differential along with four items with anchors: foolish/wise, disadvantageous/advantageous, unpleasant/pleasant, and useless/useful. We adapted these scale items from Sardanelli et al. (2019). We relied on positive affect scale items from Watson et al. (1988): excitement, enthusiasm, and interest to measure *positive emotions*. To measure the *indignation,* we used the following scale items from the study by Hwang et al. (2008): contempt, resentment, and disgust.

Table 2
Sample demographics (n = 401).

Attained education level	
High school	17.9%
Bachelor degree	12.0%
Master degree	61.6%
Postgraduate degree	8.5%
Gender	
Male	36.7%
Female	63.3%
Employment status	
Employed	79.8%
Unemployed	20.2%
Age	
Under 20	11.7%
20-29	48.4%
30-39	31.4%
40-49	7.5%
50 and over	1.0%

After reading the designated scenario, the respondents indicated the intensity of feelings on a scale of 1–5 (anchors: 1-none; 5-very strong) because of changes in the copyright enforcement regime. To measure the behavioral intentions, we asked respondents whether they intend to increase or decrease the usage of illegal and legal streaming services separately (anchors: 1- I will significantly decrease, 5- I will significantly increase). Additionally, we have decided to control for various effects that were relevant in prior digital piracy studies, namely: age (Dilmperi et al., 2011), religiousness (Arli et al., 2018), subjective norms (Aleassa et al., 2011), and past pirate behavior (d'Astous et al., 2005). Table 3 showcases the full item battery.

4. Findings

4.1. Measurement model

First, we conducted the global confirmatory factor analysis (CFA). Global CFA results showed that the measurement model exhibited an acceptable fit indices ($\chi 2 = 243.50$ (df = 156); RMSEA = 0.03; TLI = 0.96; IFI = 0.96; CFI = 0.96). The factor loadings ranged from 0.62 to 0.89, above the established conventions (Hair et al., 2010). The composite reliabilities (CR) ranged from 0.75 to 0.89 and were above the recommended threshold of 0.7 (Hair et al., 2010). The AVE values ranged from 0.50 to 0.74, and we find that no correlation between constructs exceeds squared root AVE (Fornell & Larcker, 1981). These insights give us confidence that our measures exhibit dimensionality, reliability, and validity (see Table 3).

Table 3
Measurement model properties.

Scale Properties and Items *(all items were measured with seven-point Likert scales or semantic differential)*	Loadings
Piracy beliefs, *CR* = 0.84, *AVE* = 0.56	
Foolish/Wise	0.79
Disadvantageous/Advantageous	0.72
Unpleasant/Pleasant	0.79
Useless/Useful	0.71
Positive emotions, *CR* = 0.75, *AVE* = 0.50	
Excitement	0.70
Enthusiasm	0.80
Interest	0.62
Indignation, *CR* = 0.89, *AVE* = 0.74	
Contempt	0.87
Resentment	0.83
Disgust	0.89
Social norms, *CR* = 0.82, *AVE* = 0.54	
Most people who are important to me think that I should use illegal streaming services	0.66
The people in my life whose opinion I value would approve of using illegal streaming services	0.81
Most people who are important to me use illegal streaming services	0.82
Many people like me use illegal streaming services	0.65
Intention to use illegal streaming services	
To what extent do you plan to use illegal streaming services	–
Intention to use illegal streaming services	
To what extent do you plan to use legal streaming services	–
Piracy experience	
How much prior experience do you have in using pirated products and services (e.g., books, movies, games, etc.)	–
Religiousness	
To what extent is religion important to you in your everyday life	–
Age	
What is your age?	–
Model fit	
$\chi 2(df) = 243.50$ (156), $p = 0.00$; CFI = 0.96; TLI = 0.96; IFI = 0.96; RMSEA = 0.03	

We also assessed the measurement model through configural, metric, and scalar invariance between two groups of respondents (Cheung & Rensvold, 2002). The results confirm the configural invariance of the measurement model since the groups analyzed share the same basic factor structure and pattern of factor loadings. The insights from model comparisons suggest that factor loading between the two groups is equal ($p = 0.514$). On the basis of the criteria of practical fit indices (i.e. CFI >0.90, TLI >0.90, RMSEA <0.10) (Cheung & Rensvold, 2002), we conclude that configural invariance exists across two copyright enforcement regimes. We imposed the equality constraints and compared the $\chi 2$ difference between the metric (constrained) and configural model to measure metric invariance. The results indicate no differences between the two models suggesting that metric invariance is present ($\Delta\chi^2 = 7{,}3$; $\Delta df = 8$; $p = 0.505$). Alternatively, we checked the differences between the CFI indices in the configural and metric model ($\Delta CFI = 0.00$), which is below the threshold of 0.01, suggesting that the differences resulting from introducing constraints remain insignificant (Cheung & Rensvold, 2002). We imposed the equality of constraints concerning intercepts to analyze the scalar invariance. Results indicate that the differences between scalar and metric models are marginally significant, suggesting that some intercepts might be variant ($\Delta\chi^2 = 14{,}4$; $\Delta df = 8$; $p = 0.072$). However, we additionally checked for the differences in CFI indices between the two models ($\Delta CFI = 0.003$). Results indicate that the difference is not above the recommended threshold of 0.01 (Cheung & Rensvold, 2002). All the above procedures support measurement invariance across two different copyright enforcement regime scenarios.

4.2. Structural model analysis

To estimate the structural model, we relied on SEM statistical package AMOS v.23. We use multi-group structural equation analysis to systematically compare path coefficients in two different copyright enforcement regime scenarios. We provide two separate equations for each copyright enforcement regime and present the standardized path coefficients and t-values (see Table 4). In support of H1a and H1b positive digital piracy beliefs are positively related to positive emotions ($\beta = 0.17$ $p < 0.01$) and negatively related to indignation in loose copyright enforcement regime ($\beta = -0.15$ $p < 0.01$). Surprisingly, positive digital piracy beliefs positively influence positive emotions in tight copyright enforcement regime ($\beta = 0.15$, $p < 0.01$), which led us to reject H2a. Next, H2b is supported since positive digital piracy beliefs positively relate to indignation in a tight copyright enforcement regime ($\beta = 0.26$, $p < 0.01$). We find evidence for support of H3 and H4 since results show that positive emotions lead to increased intention to use illegal streaming services in a loose regime ($\beta = 0.09$, $p < 0.05$) and increased intention to use legal streaming services in a tight regime ($\beta = 0.20$, $p < 0.05$). Finally, we also find sufficient evidence to accept H5 and H6, where indignation leads to increased intention to use legal streaming services in a loose regime ($\beta = 0.17$, $p < 0.01$) and increased intention to use illegal streaming services in a tight regime ($\beta = 0.10$, $p < 0.05$). Finally, the results show that none of the control variables significantly affect dependent variables in both regime scenarios. On top of hypothesized paths, the analysis additionally reveals that positive emotions drive lower intention to use legal streaming ($\beta = -0.09$, $p < 0.10$), whereas indignation drives lower intention to use illegal streaming in a loose copyright enforcement regime ($\beta = -0.24$, $p < 0.01$).

Table 4
Multi-group SEM analysis.

	Scenario 1 (Loose regime)		Scenario 2 (Tight regime)	
Control variables	Std. estimate	t-value	Std. estimate	t-value
Piracy experience → Illegal streaming	−0.51	1.06	0.06	1.10
Piracy experience → Legal streaming	0.06	1.40	0.06	1.26
Social norms → Illegal streaming	0.02	0.53	−0.00	0.15
Social norms → Legal streaming	−0.02	0.56	0.04	1.20
Religiousness → Illegal streaming	0.01	0.86	−0.00	0.14
Religiousness → Legal streaming	−0.00	0.52	−0.00	0.39
Age → Illegal streaming	0.00	0.00	−0.00	1.01
Age → Legal streaming	−0.01	1.60	−0.00	0.84
Main effects				
Piracy beliefs → Positive emotions	0.17**	2.90	0.15**	3.63
Piracy beliefs → Negative emotions	−0.15**	3.34	0.26**	3.43
Positive emotions → Illegal streaming	0.09*	2.06	−0.09	0.98
Positive emotions → Legal streaming	−0.09†	1.88	0.20*	2.32
Indignation → Illegal streaming	−0.24**	4.18	0.10*	2.48
Indignation → Legal streaming	0.17**	2.94	−0.03	0.96

Notes: † $p < 0.10$; *$p < 0.05$; **$p < 0.01$ (two-tailed), unstandardized coefficients.

5. Discussion

Digital piracy is a global issue that still occupies the attention of legislators. There are many reasons why digital piracy persists. The most important is the heterogeneity of the regulatory environments worldwide, the growth of illegal streaming service providers, and users' stress-free approach to using illegal streaming, knowing that they will not bear sanctions (Larsson et al., 2012). Without deep diving into these reasons, a significant stream of research has explored whether copyright enforcement regimes can effectively battle digital piracy. Some empirical evidence critically pointed out that the modalities and strategies to establish an effective copyright enforcement regime are often ineffective in combating digital piracy (Aguiar et al., 2018). A potential explanation might be that consumers are ignorant of this or deliberately continue consuming digital content through illegal sources (De Corte & Van Kenhove, 2017; McKenzie et al., 2019).

To explain these countervailing insights, we borrow from the literature that considers digital piracy a social issue (Beyer & McKelvey, 2015; McKelvey, 2015). Previous research has shown that events that polarize the population, such as politics (Wagner, 2014), result in different emotional reactions to independence in an individual's belief system (Petersen, 2010). In the wake of these insights, this paper uses cognitive appraisal theory to examine the impact of digital piracy beliefs on streaming service consumers' emotional reactions and consequent behavioral intentions. Using two scenarios in which we expose respondents to opposed copyright enforcement regimes, tight and loose, our study generates new insights that expand knowledge on digital piracy.

First, we observe that beliefs about digital piracy significantly impact consumers' emotional reactions and depend on the alignment between beliefs and properties of the copyright enforcement regime. The results show that alignment incurs positive emotions while indignation emerges if there is a misalignment. These findings are consistent with mainstream psychology studies that showed that individuals committed to their beliefs tend to react biased (often negatively) toward groups dissimilar to their beliefs (Maxwell-Smith et al., 2015). However, our study also reveals counterintuitive findings in which consumers with positive beliefs about digital piracy respond with positive emotions in the context of a tight regime. This insight is somewhat surprising since we hypothesized that indignation would be a natural emotional response in given circumstances. The theory that links danger and uncertainty to experiencing positive emotions might explain this phenomenon (Lee & Andrade, 2015). Specifically, we speculate that some digital pirates

consider the announcement of the tightening of the copyright enforcement regime as a source of excitement.

Second, our findings indicate consumers base their coping mechanisms in a given regime on emotions. In this way, we observe that consumers who experience positive emotions in a loose or tight regime show compliance and increase their share of using habitual streaming services (legal or illegal). However, in a situation where consumers experience indignation due to the regime, reactance occurs. In this context, we find that consumers increase usage of the preferred streaming and consequently reduce the unpreferred form of streaming, especially in loose regime scenario. These findings are consistent with baseline reactance theory and its applications in different social sciences, showing that threats to personal freedom trigger reactance and intentions to restore freedom (Rosenberg & Siegel, 2018).

6. Theoretical and policy implications

This study eventually delivers several contributions to literature. First, our investigation sheds new light on why some consumers oppose and support digital piracy. Unlike previous studies, we concurrently observe consumers' behavioral intentions with antithetical views on digital piracy (De Corte & Van Kenhove, 2017; Peace et al., 2003). By integrating cognitive appraisal and reactance theories, this study expands the list of factors that further illuminate that the source of polarization potentially lies in consumers' divergent beliefs and convictions in the realm of digital services. Compared to existing literature (Eisend, 2019; Lowry et al., 2017), this study is the first to capture emotional reactions to two polarized copyright enforcement regimes that lead to particular behavioral trajectories in the context of digital piracy. Consequently, this study offers a theoretically anchored explanation of why some consumers comply while others show reactance. Moreover, we also contribute by extending and popularizing the agenda that digital piracy is a venue of social debate (McKelvey, 2015) that creates tensions between different ideological camps, eventually shaping emotional responses.

Second, our study also explains why copyright enforcement regimes (loose or tight) cannot fully deliver on their promises. While previous studies correctly identify that these regimes lag in their effectiveness (Aguiar et al., 2018; McKenzie et al., 2019), our study offers a demand-side explanation of why it occurs. The origins of heterogenous consumer responses are in the different cognitive appraisals of the same stimuli. As a result, consumers whose digital piracy beliefs are misaligned with the copyright enforcement regime are more likely to show reactance. These insights also add to the literature on consumer misbehavior (Jin et al., 2020) by illuminating the affective background of when and why specific consumers misbehave by increasing their engagement in digital piracy.

Third, this study expands the cognitive appraisal theory within consumer behavior literature by exploring hitherto less explored emotional manifestations (indignation) that occur in the specific context of digital piracy due to discrepancies between consumers' personal beliefs and copyright enforcement regimes. Drawing from the conceptual distinction of indignation from other hostile emotions (Miceli & Castelfranchi, 2019), we show that indignation leads to reactance aiming to cause damage to the "wrongdoer," i.e., copyright enforcement regime that defies their convictions.

Illegal streaming services harm the entertainment industry (Hennig-Thurau et al., 2007). This is why legislators want to design the most effective copyright enforcement tools to fight against digital piracy. The findings of our research reveal that the reason why digital piracy persists might be hidden in the emotional reactions of consumers to the tight enforcement regime. Our study indicates that consumers who show compliance are not problematic, but those who show indignation avoid changing habits. Moreover, such consumers tend to increase the habitual patterns of engaging with illegal streaming services, so the enforcement efforts become counterproductive. Policymakers should take these results on board and consider redesigning the enforcement system. The potential solution to a problem might be the legalization of illegal channels at the institutional level, which would mean a drastic overhaul in combating digital piracy.

Consequently, the former illegal streaming services would become constituents of the formal streaming marketplace and directly compete with established streaming platforms. In this way, formerly illegal streaming platforms would be able to monetize, which would become intermediaries in providing streaming content services to final consumers. This form of market restructuring would incur formal legal arrangements between original content providers and intermediaries. Given that these illegal platforms are generally of lower quality and offer lower utilitarian value than established streaming platforms (Cox & Collins, 2014), the lever of differentiation through quality and prestige would still be a competitive advantage of legal streaming platforms. On the other hand, once illegal platforms could build a competitive position based on cost leadership. In the new reality, consumers loyal to established streaming services would be satisfied knowing they were paying a premium or higher price for top-quality content and, as a result, would be less indignant. On the contrary, users of illegal services would be satisfied because they would have access at an affordable price, and accessing these services would be decriminalized.

7. Limitations and suggestions for future research

Our study brings some novel insights into digital piracy but bears limitations that need to be acknowledged. First, although our scenario-based experimental approach has particular benefits for studying digital piracy issues (Van Rooij et al., 2017), we consider it a limitation because it involves research at one point in time. Future studies could utilize more advanced data collection methods to reveal clickstream and location-based data behavior. Second, our study envisions that consumer responses to copyright enforcement regimes occur through cognitive appraisal, while other psychological approaches might explain these reactions. For instance, future studies could utilize regulatory focus theory (Higgins, 2012) and investigate how consumers with dominant promotion or prevention focus react to enforcement policies.

Third, some psychological studies indicate that individuals are more likely to enact psychological reactance when they assess that a threatening event is less likely to occur (Laurin et al., 2012). Since our scenarios in this study are merely hypothetical, the respondents might have assigned different probability levels that such copyright enforcement regimes are to come into effect. Hence, we can not rule out that such effects could drive the results in our study, so future studies are encouraged to account for this in greater detail.

Fourth, since our research finds that some consumers who cherish digital piracy experience positive emotions in a tighter regime, it may be due to the different personality traits. According to biopsychological theory (Carver & White, 1994), the individuals' interaction with the environment is controlled by two brain systems: behavioral inhibition and behavioral activation. Behavioral inhibition is sensitive to potential punishment and avoidance motivation, while reward and approach motivation induces behavioral activation.

Finally, since our study only tangentially addresses digital piracy's political background, future studies could look up how consumers' political identifications steer the choices between illegal and legal streaming channels. Would consumers with a more vigorous libertarian orientation advocate more strongly legal while consumers with left-wing political orientation support illegal streaming services, considering them a form of public good?

Compliance with ethical standards

- Ethical approval: All procedures performed in this study were in accordance with the ethical standards of the University of Split, with the 1964 Helsinki declaration and its later amendments.

- The author declares that he does not have a conflict of interest.
- All participants in this study provided informed consent in digital form.

Credit author statement

Dario Miocevic: Conceptualization, Methodology, Data analysis, Writing-Original draft preparation, Reviewing and Editing.

Declaration of competing interest

The author has no competing interests to declare relevant to this article's content.

Appendix. Loose (a) and tight (b) regime scenarios used in the study

January 2020 DIGITAL ENTREPRENEUR World of Internet

Turning point on the horizon: Illegal streaming is becoming legal in the EU!

According to the latest report from the independent market research agency, almost three-quarters of Croatian citizens who have access to the Internet participate in illegally downloading films, series, and other audiovisual content protected by copyright. The report indicates that piracy has become a ritual and part of the everyday life of the modern consumer in the so-called Sharing economy, which is expanding in all spheres of life, from transport, accommodation, clothing, food, and is projected to grow more in the coming years. Judging by the announcements of legal changes, illegal streaming and downloading of movies and other television content should become legal.

The working group, consisting of representatives of the Ministries of Culture, Economy, and Justice of the Government of the Republic of Croatia and representatives of the Association of Creative and Cultural Industries at the Croatian Chamber of Commerce, is working on amendments to the Copyright and Related Rights Act (OG 167/03, 79/07, 80 / 11, 125/11, 141/13, 127/14, 62/17, 96/18). The changes are intended to make the current illegal streaming of films and television content legal and exempt it from the current, as some analysts call it, legal vacuum.

According to a source from the Government, figures on the growth of the number of users mandates adequate measures and policies to protect users and their right to information while at the same time providing creators of television and film content with the deserved economic benefits arising from copyright. These legal changes resulted from the insistence of the liberal-green bloc and the European Pirate Party in the EU parliament. Unofficial sources from the Government reveal that the working group proposes the relaxation of legal restrictions and the concretization of measures and activities that will increase the education of users on how legal and paid sources of digital streaming are safer and better.

Bojan Petruševski

January 2020 DIGITAL ENTREPRENEUR World of Internet

Dawn of Despair: Amendments to the law and draconian penalties for illegally watching copyrighted online content have been announced

According to the latest report from the independent market research agency, almost three-quarters of Croatian citizens who have access to the Internet participate in illegally downloading films, series, and other audiovisual content protected by copyright. The report indicates that piracy has become a ritual and part of the everyday life of the modern consumer in the so-called Sharing economy, which is expanding in all spheres of life, from transport, accommodation, clothing, food, and is projected to grow more in the coming years. Judging by the announcements of legal changes, illegal streaming and downloading of movies and other television content should become legal.

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According to a source from the Ministry of Economy, the government takes copyright infringement very seriously and is working with business associations to tackle this burning issue. These legal changes are in line with the new directive of the European Commission, which seeks to increase penalties for illegal downloading of films and other television content. Unofficial sources from the Government reveal that the working group is proposing stricter penalties for illegally downloading and streaming audiovisual content, following legal solutions in FR Germany. Judging by that scenario, the fines for illegally downloading and watching movies could be up to 3.000 euros.

Bojan Petruševski

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