Online Compensation Behaviors From a Cognitive Dissonance Perspective: An Examination of Software Downloading in Spain

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ABSTRACT

Conclusions about factors affecting software piracy are rarely consensual and often rely on student samples. In addition, the actual dilemma faced by software downloaders—whether to pay or not—received little attention in the past. In this paper, the authors suggest an explanation to the compensation dilemma facing software downloaders using the theory of cognitive dissonance. From a survey with more than 10,400 participants, researchers investigate a series of individual characteristics that can potentially differentiate three groups of software downloaders—groups defined by their respective online compensation behavior. One distinctive characteristic for each group of software downloaders is hypothesized and a predictive model is developed. Results suggest that always-paying downloaders are older and that erratic downloaders prefer quality products and engage in more online activities. Authors conclude with a discussion that includes several implications for the software industry.

KEYWORDS
Cognitive Dissonance Theory, Digital Piracy, File Sharing, Online Payment, Softlifting, Spanish Internet Users

INTRODUCTION

Innovation drives economic growth and sustains a country’s commercial development. Defending intellectual property rights is vital to promote innovation and creativity and serves as an essential ingredient in market-based economies. Patents, trademarks, and copyrights are the principal legal tools used to establish ownership of creative ideas in their various forms, providing the foundation for generating tangible benefits that accrue to companies, workers, and consumers (U.S. Patent and Trademark Office, 2012). Without legal protection, creators of intellectual property would tend to lose the economic fruits of their work and the motivations to develop additional innovations.

The World Intellectual Property Organization (WIPO) defines “copyright”—or author’s right—as the legal rights that creators have over their literary and artistic works. Creations covered by copyright range from books, music, paintings, sculptures, and films, to computer programs, databases, advertisements, etc. Copyright industries—whose primary purpose is to create, produce, distribute, or exhibit copyrighted materials—deliver significant value to society. Examples of WIPO classified

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industries within the copyright sector include sound recording studios, motion picture and video businesses, and software publishing firms. These firms are strong economic drivers because they provide a large workforce with higher-paying jobs than average and outpace other sectors in terms of growth and revenues (Siwek, 2014; U.S. Patent and Trademark Office, 2016).

Within the copyright sector, software programming and publishing relies intensively on intellectual property protection, and is a major and growing part of the economy. In the U.S. alone, the software industry directly contributed $564.4 billion to the economy in 2016 (+18.7% over 2014) and employed 2.9 million people, an increase of more than 350,000 US jobs during the last two years. Moreover, for each direct job generated by the software industry, another 2.6 supporting jobs are created throughout the rest of the economy (BSA / The Software Alliance, 2017). The Spanish programming industry boasts proportionally slighter numbers, but remains of particular interest because Spain is the country where this study was conducted. Table 1 allows for a better understanding of the importance and contribution of the software programming industry to the Spanish economy in terms of revenues, size, and workforce (ONTSI, 2017).

Because compensating authors’ rights is necessary to the development of content industries, digital piracy has received prominent attention in the past years. Scholars from many different fields of research have provided different theoretical perspectives to the study of digital piracy. Examples include ethical frameworks (Gopal, Sanders, Bhattacharjee, Agrawal, & Wagner, 2004; Yoon, 2011b), justice theories (Malin & Fowers, 2009; B. Moon, McCluskey, & McCluskey, 2010; Morris & Higgins, 2010), and consumption-related models such as consumers’ preferences (Coyle, Gould, Gupta, & Gupta, 2009; Lyonski & Durvasula, 2008), satisfaction (Chiou, Huang, & Lee, 2005), or willingness to pay (Chiang & Assane, 2009; Hsu & Shiue, 2008; Jackman & Lorde, 2014). These theories offered valuable insights to explain users’ attitudes (Al-Rafee & Cronan, 2006; Goles et al., 2008) and intentions (B. Moon et al., 2010; Morton & Koufteros, 2008) towards software piracy. However, findings are often conflicting and the actual compensation dilemma faced by Internet users (i.e., deciding whether to pay or not) when downloading software has received very little attention. Therefore, the authors propose an explanation to the compensation dilemma faced by software downloaders based on the theory of cognitive dissonance, a perspective that proved effective to the study of online music and movie consumption (Redondo & Charron, 2013; Riekkinen, 2016).

To understand software downloaders’ compensation quandary, researchers begin by reviewing previous research on individual and social factors affecting software piracy. Several hypotheses are then developed from the theory of cognitive dissonance. Using survey answers from 10,409 valid participants, the study investigates a series of individual characteristics that could differentiate between three groups of software downloaders in terms of their online compensation behavior: those who always pay, those who never pay, and those who alternate between paying and not paying. Authors conceptually organize these characteristics under three broad categories: demographics, psychographics, and factors related to Internet use. Differentiating factors become candidates for the development of a prediction

### Table 1. Overview of the Spanish software programming industry

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<tbody>
<tr>
<td>Number of businesses</td>
<td>1,414</td>
<td>1,594</td>
<td>1,845</td>
<td>2,221</td>
<td>2,574</td>
</tr>
<tr>
<td>Number of employees</td>
<td>24,784</td>
<td>24,314</td>
<td>25,162</td>
<td>28,360</td>
<td>32,152</td>
</tr>
</tbody>
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