

Chapter 60

Are Wearables Good or Bad for Society?

An Exploration of Societal Benefits, Risks, and Consequences of Augmented Reality Smart Glasses

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ABSTRACT

Recent market research forecasts predict that a new form of wearable devices will soon influence the media landscape: Augmented Reality Smart Glasses. While prior research highlights numerous potentials in personal and professional settings of smart glasses, this technology has also triggered several controversies in public discussions, for example, the risk of violating privacy and copyright laws. Yet, little research addresses the questions of whether smart glasses are good or bad for societies, and if yes, why. This study conducts exploratory research to contribute to narrowing this gap. Based on a survey among consumers, the authors identify several societal benefits and risks that determine consumers' evaluation of the anticipated and desired success of smart glasses. These findings lead to numerous important implications for consumers, scholars, managers, and policy makers.

DOI: 10.4018/978-1-5225-5484-4.ch060

INTRODUCTION

A recent study by Goldman Sachs (2016) asserts that augmented reality (AR) smart glasses are the latest step in an evolution of digitization of reality and a large developing future market. What began with stationary computers that were temporarily online to receive and display information to their mostly business users in the last century turned into a network dominated by user-generated content (UGC), with users being mainly consumers that are permanently online and access the internet through a multitude of devices (Hennig-Thurau et al., 2010). Smart glasses mark the current latest step in this evolution as they hold the potential to merge online and offline – not just through ubiquitous and permanent online accessibility, but rather by merging online senses directly with consumers' vision (Rauschnabel, Brem, & Ro, 2015). This results in entirely new ways for consumers to interact with the Internet and its content.

Smart glasses represent a radically new invention with an important number of potential use cases for both civil and business life (Berque & Newman, 2015; Hein & Rauschnabel, 2016; Moshtaghi et al., 2015). However, because they are so new and their uses so unexplored, part of their success will depend on the hopes and fears consumers hold with regard to their usage and their proliferation (Lee, Bojanova, & Suder, 2015). Consumers do not just care about their mere self-interest, but rather include interests of the environment and society in the decision making (Doane, 2001). This trend of ethical consumerism can be defined as “spending that makes a positive difference in the world” (Witkowski & Reddy, 2010). It may become problematic with regard to smart glasses. When trying to predict smart glasses adoption, the technology acceptance literature would typically be of high relevance. However, early research suggests that smart glasses possess the potential to radically change society and the rules and norms it operates on for better and for worse (Wassom & Bishop, 2015). Anecdotal evidence for this derives from various newspaper articles, press commentaries and articles that discuss (predominantly negative) consequences of this technology for societies. However, the academic literature does not provide findings on what these potential consequences are and how these factors influence consumers' evaluations from a societal perspective. Absent such knowledge, managers may find it difficult to promote the use of smart glasses while policy makers may have difficulties in developing appropriate legislation. Finally, for theory, the lack of pre-market knowledge on societal consequences might hinder the understanding of the diffusion of smart glasses, as prior research has shown that consumers tend to include various ethical (Jacobsen & Dulsrud, 2007) and social (Venkatesh, Thong, & Xu, 2012; Davis, Bagozzi, & Warshaw, 1989) variables in their decision making.

In this chapter, we aim at increasing the understanding of societal factors associated with smart glasses. We are particularly interested in providing answers to the following research questions (RQs):

RQ1: How do consumers evaluate the potential opportunities and threats of smart glasses for society?

RQ2: How are these potential opportunities and threats related to consumers' desired and anticipated success of smart glasses?

The remainder of this chapter is organized as follows: First, we provide a definition of smart glasses as well as findings and use cases from prior research. Then, we briefly review technology acceptance theories and their applications on smart-glasses. This is followed by a review of ethical consumerism and consumer citizenship studies. For the empirical part of this chapter we present an exploratory survey study. Survey data was gathered and factor analyzed in order to extract factors that consumers use to evaluate smart glasses. In subsequent analyses, we empirically assessed how these factors relate to consumers'

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