

Chapter 17

A Bright Future for AR and VR on Mobile: Current Status, Obstacles, and Perceptions

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ABSTRACT

This chapter is conceptual in character and concentrates on two more recent technology innovations the fashion industry is making use of both virtual reality (VR) and augmented reality (AR). Using examples from contemporary fashion, the technology acceptance model (TAM) will be used to further assess the perceived utility and usability of AR and VR from a consumer perspective. The chapter ends with a discussion of potential future study areas. Academics and business alike are paying an increasing amount of attention to mobile augmented reality, or mobile AR. Application-based and hardware-based are the two leading platforms for mobile augmented reality applications. Even with the deployment through apps requiring

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additional downloading and installation beforehand making it painstaking for many platforms distribution, mobile augmented reality implementation through hardware is known to be costly and lacking in flexibility. This chapter looks at the newest technological advancements, active mobile augmented reality deployments, auxiliary technologies, and issues that come up with AR.

INTRODUCTION

A collection of technologies known collectively as augmented reality (AR) allow computer-generated evidence to be combined in real time with live image display. AR is built on methods found in virtual reality (Villari et al., 2016) and engages with both the actual world and a virtual one to some extent. Hugues¹¹ asserts that “augmenting” reality has no intrinsic value. But as soon as we put the human person and his view of the world back in the forefront, this word starts to make sense. Although reality cannot be increased, perceptions of it may. Even if we define augmented reality as a “heightened perception of reality,” we will nonetheless refer to it by that word.

In Ronald Azuma and his colleagues conducted insightful and thorough studies in the realm of augmented reality. But the past ten years have seen a particularly high level of advancement in this expanding field of study, opening up prospects for the use of augmented reality across a range of application disciplines. To the best of our knowledge, no current study have comprehensively covered AR technologies (Agrawal, 2018) in the literature with regard to the many application sectors, the influence of mobile technology, and the connection between AR and VR. This study offers an overview of current technology, prospective applications, constraints, and future developments of AR systems for anybody interested in learning more about the topic. The document's outstanding sections are organized as follows: Within Section 2 the technologies that provide an augmented reality experience are presented. The differences between AR and VR are elucidated, and the role played by mobile technology in AR is highlighted. The applications of augmented reality that have been identified are categorized into 12 different areas in Section 3, which includes well-known industries including robotics, entertainment, manufacturing, healthcare, and visualization. Along with these beginning disciplines, it also covers tourism, urban planning, civil engineering, education, marketing, GIS, navigation, and path planning. Section 4 delineates and deliberates upon the prevalent technical obstacles and constraints concerning technology and human issues.

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