Chapter 23
Avatars and Digital Technology Literacy Applied in Psychology

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ABSTRACT

Technological advances have led to a variety of positive outcomes and benefits. This chapter aims to discuss the different kinds of therapeutic interventions, clinical methods, and approaches in the field of psychology that have resulted from the advance in digital and virtual technology. In particular, this chapter focuses on avatars and virtual technology as a component of media literacy. Additionally, the chapter explores, in detail, how avatars are used across various clinical settings with diverse populations such as individuals with autism spectrum disorder, individuals with schizophrenia, prison settings, and the criminal justice system. Furthermore, the chapter highlights the significant implications avatars have in regards to education. Lastly, controversies and challenges are discussed regarding the efficacy of digital technology within clinical settings (e.g., telepsychology).

INTRODUCTION

There is no doubt that technology has advanced over the years. The flip phones we once thought were trendy and new are now considered things of the past- outdated and passé. Currently, almost everything is touch screen, password encrypted, or voice activated. Computers seem to be getting smaller or bigger, faster, smarter, and better. Also, one can watch a sports game through a screen, clearer and in better definition than what it would have been in real life. Nowadays, the traditional way of learning through pen and paper may not be the most effective for some current students, and thus, an integration of technology may be an inevitable, essential component of today's classrooms (Tozlu & Yildiz, 2018). Simply put, technology all around us is continuing to advance in ways that one could have never imagined in the past. Most importantly, technology has greatly influenced the way professionals interact within their area of expertise. For instance, psychology is no longer a field of practice where therapists are solely

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expected to sit across their patients, face-to-face; it goes beyond. As this chapter will go into detail, the advancement in technology has greatly contributed to the way psychologists provide therapeutic services to their patients. It also has some important implications for education.

Thus, this chapter will primarily discuss the current research and applications in the field of media literacy (specifically, avatar technology) across the discipline of psychology. Then, it will investigate and discuss the challenges and solutions regarding the current research and present its applications. Lastly, the chapter will consider the possible implications media literacy (i.e., avatar technology) has on students and the educational environment.

BACKGROUND

Technology and Psychology

Psychology is often defined to be the scientific study of the human mind and behavior. Furthermore, psychology is known to be a multifaceted discipline that includes many sub-fields of study such as human development, sports, health, clinical, social behavior, and cognitive processes (McLeod, 2011). Various factors can influence the study of psychology (i.e., politics, culture, gender, age, etc.). Among these, technological advances have also significantly impacted and changed the field of psychology over the years.

It is important to recognize that there are both positive and negative views in regards to how technology influences the field of psychology. For example, although some may state that mobile technologies are powerful tools to enhance ability, communication, and cognition, others argue that they can have a negative and lasting impact on an individual's ability to think, remember, pay attention, and regulate emotion (Wilmer, Sherman, & Chein, 2017). In the study, Wilmer, Sherman, and Chein explore the relationship between smartphone technology and three specific facets of cognition which are attention, memory, and delay of gratification. The authors have concluded that there is not enough research to argue in favor of serious consequences of smartphone and technology usage on human cognition. Furthermore, they suggested that future research should be done on the effect of smartphone ownership on young children. As of now, there is very little information on when is the most appropriate age for children to begin using a smartphone. If technology use does, in fact, negatively (or positively) impact an individual's cognition, it is important to know at what age a child should start to be exposed to technology.

Over the years, psychologists' interest in the area of memory and cognition has grown tremendously. Many researchers have studied topics such as implicit vs. explicit memory, short-term memory vs. long-term memory, etc. Comparably, technology is becoming more and more assessible to people of all ages, and therefore, one can expect to be exposed to technology, in some way or another, on a daily basis. Ironically, there is a lack of research done regarding the relationship between human cognition and technology. Important questions, such as whether or not technology is beneficial or harmful to one's cognitive development, are not being effectively and directly answered. It is important for psychologists to start taking notice of this gap within the research field, and draw closer attention in seeking out ways to provide more significant findings of the implications of technology on human cognition, and psychology as a whole. The increased use of technology can also serve as a significant research tool and advantage (Wilmer Sherman, & Chein, 2017). With the field of psychology becoming progressively more dependent on modern science and sound research, increased technology use can serve as a significant asset. For example, smartphones and other technological devices can present a more convenient and naturalistic