Chapter 17
Future Identities of the Self Among Learners Across Physical and Virtual Spaces

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ABSTRACT
This chapter seeks to examine the future identities of the self among learners across physical and virtual spaces and attempts to explain how these roles could flourish across the tech-centric learning environments. The study discusses the origin of identities, how they relate to current and future models of education, and what future identities and roles are possible. Challenges mentioned include those associated with evaluation and assessment of the virtual spaces, as well as new ways of capturing the environment feedback by utilizing sensors and wearable technology. Highlights involve virtual environment design using gamification techniques and security aspects of the future identities. The conclusion summarizes factors and stakeholders that need consideration when creating adequate physical and virtual spaces for the future identities of self.

INTRODUCTION
To increase one’s understanding of self and identity assignment in the learning spaces including the impact of technology requires a brief delve into the current state of traditional personalities. Describing the physical learning space as what exists today in the formal education system process, where a school or institution, a classroom or lecture hall as well as laboratories, workshops, and libraries are the characteristics that describe where educators and learners congregate for interaction. The various locations available for homeschooling, (i.e. a house or place of worship), can also be acknowledged as learning environments.

The study deduced that the impact of virtual technologies on how society in general interacts is significant. The virtual learning spaces initially molded on their physical counterparts offer an advantage due to several virtual locations designs and access possibilities. There is a corresponding need for a
structured approach so that learners in either or both physical and virtual space identify and acknowledge their participatory roles for interaction. An individual student can either simultaneously participate in all the learning spaces or be biased to either one, depending on their preferences.

This chapter outlines the origin of identities and their relation to current and future education models. It highlights the identities and roles assigned to learners in both the physical and virtual spaces. The study suggests evaluation or assessment methods including ones which incorporate feedback data from sensors or wearable devices. Finally, the chapter looks at virtual environment designs using gamification techniques as well as security aspects and ends with a summary of the factors that need to be considered by designers for productive and efficient learning spaces.

BACKGROUND

The thrust of the Horizon Report produced by the New Media Consortium and other contributors such as the Consortium for School Networking (CoSN) (NMC Horizon Report 2016) is to aid educators with information about emerging technology trends and their potential use in the teaching, learning and creative spaces. The report is a “futuring” tool which looks at the next five years. The latest NMC Horizon Report (Johnson, Adams Becker, Cummins, Estrada, Freeman, & Hall, 2016) zoomed in on the trends challenges and solutions associated with embracing technology in higher education. Previous editions such as NMC Horizon Report 2014 (Johnson, Adams Becker, Estrada, & Freeman, 2014) pointed toward encouraging adoption in younger members of society.

In the period from when the Horizon Reports were first produced starting in 2006 (New Media Consortium, 2006), the constantly evolving technology has changed how society communicates, in general. It favors more free and personalized modes such as smartphones, tablets, and laptops over traditional fixed techniques related to television, telephony, and radio.

The growth of social media use has ensured round-the-clock interactions on all levels, local, national and global. The ability of Avatars to represent users on the internet as well as in virtual worlds or gaming programs has boosted the desire for individual expression, (Damer, Judson, Dove et al., 1997). The proliferation of similar applications or Apps (Purcell, Entner & Henderson, 2010) removes previous communication restrictions such as language barriers with the introduction of software-based Artificial Intelligence translators (Bais, Machkour, & Koutti, 2016).

The desire to call globally without enduring the traditional telephony costs when using WhatsApp (Jiang, Das, Ananthanarayanan et al., 2016) is another way technology has increased interaction. The education field has been affected too as it has become apparent that the needs of the learners and their specific roles in a tech-centric learning environment require a relook to understand changes and give a sense of structure. This examination involves the ability to reference and define the future identities of the learners across physical and virtual spaces when integrating them with an Awareness of Selfhood and Society.

THE ORIGINS OF THE FUTURE IDENTITIES OF SELF

The current teaching and learning pedagogies is traced to the earlier work on identity, self and culture regarding education from Hoffman (1998) and others. Comitas and Dolgin (1978) connected historical