Chapter 3
E–Health:
Modern Communication Technology Platforms for Accessing Health Information

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ABSTRACT

This chapter will identify how Australian university students access and use various forms of technology (Web 1.0 – Internet, Web 2.0 – social media - SM) to retrieve personal health information. This chapter will move beyond Web 1.0, to present a theoretical basis of claim, concerning the extent to which other forms of technology (e.g. Web 2.0 and wireless monitoring devices) have impacted on youth. What is more, attention will be directed towards outlining to what degree this has shaped their patterns of health information retrieval. Importantly, this chapter aligns with contemporary literature that suggests a need for further studies into the area of human - technology interactions, which promotes sustainable action plans and strategies that will create and encourage reform throughout e-health programs and interactive communication platforms. Given that Australian university students are prolific users of modern forms of communication technology and that youth, in general, characteristically undertake relatively high levels of risky health behaviours and unhealthy lifestyle choices, such a chapter would seem warranted.

INTRODUCTION

There is limited rigorous cross sectional research, investigating and comparing Australian university students' and their technology usage to access health information. What is more, research outlining contrasting patterns of Web 1.0, Web 2.0 and wireless monitoring device adoption by university students to address chronic disease (CD) is narrow. Therefore, this chapter builds on past and presents contemporary research that outlines how modern forms of communication technologies are impacting on individuals' health information access, implementation and health care delivery into the early 21st century. Hence, a broad objective of this chapter is to address how emerging health technologies have the potential to manage CD and heighten health information access and dissemination. A more specific objective is to

demonstrate how technologies, such as the Internet/World Wide Web (Web 1.0), social media (SM - Web 2.0), and various wireless mobile monitoring devices / platforms, are being collectively harnessed and have the potential to address Australia's CD epidemic, especially amongst youth.

The chapter is organized as follows. First, a synopsis of the current university students and Australia's CD epidemic is presented. Within this section it will be highlighted as to what are the major contributing risk factors and CD conditions represented both globally and nationally. Second, a summary of major technology (Web 1.0) innovations and university students' will be presented with further attention given to user trends. This section will draw on research by Usher et al., (2015) which goes to provide evidential baseline data concerning the current landscape as it stands. Such approaches are legitimised by drawing on past and contemporary research. Third, the remaining body of this section describes and discusses past research in the area of Web 1.0 and university students' usage trends and access to technology for the purpose of health information retrieval.

The fourth section gives reference to potential future research directions, with specific attention given to outlining how Web 2.0 technologies have created a new healthcare ecosystem. Emphasis is directed towards outlining how new communication technologies have heightened an active pre-eminence of health content creation, accessibility, delivery and adoption over passive content consumption. This section concludes by presenting how that enabling technologies, such as Web 2.0, offer for the first time the potential for individuals to be connected into a healthcare ecosystem that can deliver actionable information in a timely manner, overcoming the barriers of multiple data silos across many platforms.

Lastly, the chapter concludes by offering a glimpse into future possibilities surrounding emerging strategies, technologies and potential recommendations to heighten the uptake as to the sustainability of e-health and how they could potentially provide a framework that legitimizes university students' participation in discourses around health information access and implementation.

BACKGROUND

University Students and Australia's Chronic Disease Epidemic

University students typically enter a dynamic transitional period of new independence from their parents that is characterised by rapid, interrelated changes in body, mind, and social relationships (Pullman et al., 2009). Arnett (2000) has distinguished the period between ages 18 and 25 as a phase of "emerging adulthood," a liminal period between adolescence and adulthood. Although the university years are often viewed as a key phase for personal growth and development, they also represent a period of increased risk for injury, morbidity, and mortality associated with multiple health behaviours (Binkowska-Bury & Januszewicz, 2010). More precisely, many university students fail to meet recommended nutritional guidelines, have decreased physical-activity (Lowery et al., 2000; Hendricks et al., 2006; Reddy et al.,. 2011) and many first-year boarding university female students are significantly more likely to start binge eating (Barker, 2007).

Australian university students are becoming less physically active and have increasingly adopted a sedentary lifestyle centered on computer use and television viewing (Alricsson et al., 2008), leading to increased health risks. Correspondingly, chronic diseases are currently contributing to around 70% of the total burden of illness and injury experienced by the Australian population, with the expected

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