Conceptualising digital resilience of Australian tertiary level students

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Digital technology is used extensively in the Australian tertiary education sector to facilitate learning and teaching. While technology enabled learning systems have received considerable academic attention, the impact of such technologies on learning performance has been sporadic. Some key disadvantages of using technology have been found to be: feelings of disconnection; a tendency toward procrastination; and technology-use anxiety. These not only affect students' learning performance adversely but also raise a fundamental question regarding tertiary-level student resilience when using digital technology in the education system. Existing research is largely silent about students' digital resilience. This research draws on the theory of social-ecological resilience (Folke, 2006[1]) and conceptualizes digital resilience of tertiary-level students in terms of its definition, drivers, and consequences. Guided by a qualitative approach, twenty one in-depth interviews were conducted using a semi-structured interview schedule. The respondents were recruited from Curtin University student volunteers (undergraduate and post graduate students as well as local and international students) based on whether they had previously enrolled in a technology enabled flipped class. Interviews were recorded and transcribed verbatim. Transcripts were analysed thematically using deductive coding.

Based on the findings, we define digital resilience as an individual student's psychological capacity to remain functional by absorbing, recovering from, adapting to and learning from adversities stemming from the use of digital technology in the tertiary educational context. The findings reveal several factors influencing digital resilience that can be grouped into three broad categories: (i) individual (e.g., self-motivation towards study), (ii) social (e.g., peer influence), and (iii) institutional (e.g. university support systems) factors. It has also been found that digital resilience helps students achieve positive learning outcomes. Thus the study extends the theory of social-ecological resilience in the digital technology context and offers practical implications for tertiary education managers.

1 Folke, C. (2006), "Resilience: The emergence of a perspective for social-ecological systems analyses", *Global Environmental Change-Human and Policy Dimensions,* Vol. 16 No. 3, pp - 253–67.