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# Digital Safety and Responsible Use within a Primary School Ecosystems Community in Aotearoa/ New Zealand

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**Abstract.** With the New Zealand Ministry of Education's emphasis upon e-Learning in educational settings, and the correlating increase in approaches to learning with digital technologies in New Zealand primary schools, primary school-aged students in New Zealand are increasingly using digital devices in school settings and at a progressively earlier age. As availability of digital devices outside of school also increases and the boundaries between usages blur, there is an imperative to prepare primary them to use digital devices safely and responsibly across multiple contexts, and for multiple purposes. Implementing a school-wide, cross-sector, multi-stakeholder approach has been proposed as the most effective way to prepare young people in this area. However, little is known about how such an approach is actualized in primary school settings, and the benefits and challenges associated with its adoption. Drawing upon ecological systems theory, this interpretive case study will examine how one New Zealand primary school addresses digital safety and responsible use within the school ecosystems community, how they engage with individuals, groups or organizations situated within other ecosystem communities, and the drivers, enablers, barriers and tensions they experience within these endeavours.

**Keywords:** Education, Digital Devices, Digital Safety and Responsibility, Ecologies, Case Study

## 1. Introduction

Corresponding with the increased availability and use of digital technologies in many societies, there is increasing concern regarding the safety, behaviour, understandings and wellness of digital technology users who use these technologies to engage with digital content and participate within digital environments [1,2]. The New Zealand Ministry of Education recognise both the pivotal role digital technologies have transforming teaching and learning in New Zealand schools [3] and the imperative for the education sector to ensure students are equipped to engage effectively and safely when using these technologies [4]. The term 'safety' is often used to describe things that afford security and protection from danger. Maurice et al [5] define safety as "a state in which hazards and conditions leading to physical, psychological or material harm are controlled in order to preserve the health and well-being of individuals and the community" (p.234). The notion of 'risk' is always associated with safety. Cibbora [6] describes risks as actions that included an element of uncertainty, that

have a probability of occurrence and that could potentially have undesirable outcomes or consequences. Staksrud and Livingstone [7] classified three types of risks associated with children's participation in online activities using digital technologies (p. 368);

- Content risks: where children are the recipient of often mass-produced images and text (child as recipient);
- Contact risks: where children participate in adult- initiated online activities (child as participant); and
- Conduct risks: where children participate in peer to peer exchanges (child as actor)

Each of these risk categories have been identified in New Zealand, with associated issues such as cyberbullying [8,9,10], information disclosure [11,12], overuse [13,14] and unsafe use [15] now impacting primary school-aged students. All schools in New Zealand have a legal responsibility to ensure the safety of students during school hours. To minimise the risks associated with digital safety, schools may implement strategies to ensure the safety of students within the school environment, for example blocking access to websites and monitoring digital technology use by students. However, many of these strategies have little impact when the students leave the school grounds. Thus, the Ministry of Education identify digital fluency and ensuring safe online learning environments as priorities for New Zealand schools [16], proposing that equipping learners with 21st century skills and digital competencies requires a cohesive, coordinated, cross-sector and multi-stakeholder approach to change within the New Zealand education system. Key organisations with an interest in 'Internet Safety' in New Zealand [17,18,19] support this assertion, one stating that there has never been a greater need for schools and communities to work together as young people in New Zealand access the internet with increasing frequency via multiple access points, with a continuing trend towards mobile access.

Although one New Zealand school-based case study [20] has investigated the implementation of digital citizenship, a concept often associated with digital safety, within a secondary school setting, there are major gaps in research relating to primary school contexts and more notably, research investigating the ways teachers and schools work with parents/whānau and members of the wider educational community, who also reside within the educational ecosystem in New Zealand. The case study described in this thesis is intended to address this issue. The overarching question guiding this thesis is: How does a primary school approach digital safety and responsible use within their school ecosystems community? The following sub-questions will focus the investigation.

With regard to school leaders, teachers and school support staff:

- a) What perceptions do they have about digital safety and responsible use?
- b) How are digital devices used by students?
- c) How is risk constructed and managed?
- d) How is digital safety and responsible use encouraged?
- e) How do they work together, and with parents/whānau and members of the wider school community, to support digital safety and responsible use by their children?

Bronfenbrenner's 'Ecological Systems Theory' [21] and Davis' 'Arena with Change with Digital Technologies' [22,23] will provide the theoretical frameworks

for this study. Notions of ‘space and place’ [24] and ‘networks’, increasingly relevant to research involving digital technologies, will also be examined.

## 2. Methodology

Case Study methodologies as proposed by Stake [25] and Merriam [26] both resonate with me as a researcher as they closely align with my epistemological (social constructivist/ social-cultural) orientation. They also provide best fit with the study as a naturalistic, interpretative inquiry. The case study will be conducted in a primary school in the local region and undertaken over a one-year period. Purposive sampling will be used to identify potentially suitable schools for the study, the criteria being; age band coverage (spanning ages five-thirteen), high usage of digital technologies and collaborative teaching approaches, and evidence of a BYOD, a ‘bring your own device’, policy within the school. Although the unit of analysis will be the school and the parental community within this school, the interactions with external networks across other layers of the ecosystem will also be considered. Ethical considerations will be identified and discussed with the school, and ethical clearance gained prior to the study commencing. Qualitative data will be collected utilising a range of appropriate data gathering techniques including interviews, observations and document review/analysis. Data analysis will be conducted recursively in association with data collection, and will involve forms of analysis that may include categorical aggregation, content analysis, analytical induction and direct interpretation. Strategies to enhance credibility and trustworthiness will include reflective commentary, triangulation (data/theory), member checks, and multiple observations conducted over the period of one year. Researcher positioning, and disclosure of bias will be declared and discussed to enhance data dependability. This research and the resulting thesis will draw upon my individual [27,28,29,30, 31] and collective [32,33,34] experiences as a researcher of digital technologies, digital environments and online communities, many years of experience as an educator working in and with primary schools in New Zealand, and my enduring fascination and critical appraisal of the ways digital technologies and environments are impacting the way people live, learn and communicate in society. It is intended but not assured that the findings exemplify the myriad of ways digital safety and responsible use are being addressed across the educational ecosystem, thus potentially providing insights for the reader that could inform future policy directions in New Zealand and school practices beyond New Zealand. It is highly likely the findings will expose questions and issues that justify further examination in future studies. As such, this thesis will make a valuable contribution to research and literature in this field. Importantly, it also makes a valuable contribution to the development of this author as a quality researcher.

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