Managing information and communication technology in schools.

Steven Vella, DER-NSW Technology Support Officer, Junee High School;
Charles Sturt University, NSW.

Managers of information and communication technology (ICT) work in a rapidly changing global industry and face many challenges, including ethical ones. Whether or not they are sufficiently equipped to recognise when an ethical challenge confronts them and what to do about it when they do recognise it, is debatable. After briefly putting these challenges in the global context, this discussion paper focuses on my experiences in the education sector during a period where the national Digital Education Revolution injected over 967,000 mobile devices through the National Secondary School Computer Fund (NSSCF) to Year 9 to 12 students across Australia (Australian Government, 2013a).

When considering the ethical implications of a situation a number of techniques could be used. Challenges are increased by the cultural differences in interpreting ethics in ICT (Jagger & Strain, 2007; Burmeister, 2013). However, the application of these techniques in the ICT sector may not be in common use by ICT professionals (Weckert & Lucas, 2012; Al-Saggaf & Burmeister, 2012).

On the one hand, skills and techniques useful to managers of ICT start with classical utilitarian (Driver, 2009) and contemporary deontological (Alexander & Moore, 2012) ethic theories and extend to such tools as reasoning software such as Rationale 2, the Australian Computing Society (ACS) code of ethics and professional practice (McDermid, 2008), the ethical decision making process (McDermid, 2008), professional ethics theory (Nello, 2010) and the doing ethics technique (Simpson, Nevile & Burmeister, 2003).

On the other hand, even if these techniques were taught, would there be a way to evaluate their ability to apply them because of the many factors that could influence their answers, including those mentioned by Jagger and Strain (2007) such as culture, financial pressures and comprehension of questions.

It is then interesting to investigate these issues in a specific context, namely that of managing ICT in Australian schools.

- The breakdown of NSSF by the Australian Government (2013b) between each State and Territory and the government, independent and Catholic schooling sectors show wide variations, for example in the government sector where 0.8% and 38% of government sector funding went to the NT and NSW respectively. The funding based on the school’s location, its sector as well as student numbers and the socio-economic status of their community impacts decisions for managing ICT at many levels, for example, whether the school’s ICT support services should install a high definition imaging printer for photography, purchased and approved by the school because of a perceived need and effective product marketing even though it is outside the support services scope of work.
- Laaly, Sharples, Tracy, Bertram and Masters (20120) discuss changes to facilitate ethics approval for researching students learning with mobile and ubiquitous technologies. A similar discussion may be needed for the provision of technology in primary and secondary schools dealing with students who are primarily children. Changes could consider ways to define participation, teacher roles, informed consent, attachment, suitability of material and privacy as boundaries are greyed, authenticity is more difficult to ascertain and outcomes are less predictable. For example, where some schools will transition to a bring your own device (BYOD) strategy and single-
vendor cloud-based applications even though the Australian protocol for storing data offshore has not been defined (Australian Computer Society, 2013) and an in-house or alternate vendor solutions could provide a similar or better result.

- Any reliance on school management, from observation traditionally recruited from teachers, to address local issues not defined in ICT-project policies and procedures questions whether teacher education (Phelan, 2011) provides an adequate grounding in ethics to deal with such issues. For example, where a school principal is asked to decide how to action broken devices requiring students from both wealthy and low socio-economic circumstances to pay for repairs under a high (in relative terms) fixed single price model for repairs, whether it is for a keyboard or a new screen;

References


