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Digital equity: A social justice issue for staff, not just students

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It can be forgotten that it is not simply students who face the challenges of digital equity in higher education. Staff can also face digital challenges, and employment at an institution is not necessarily a safety net to protect staff from the digital divide. This paper attempts to give this voice to this issue. The digital equity challenges that they may face can range from internet accessibility, diversity in skills, or access to the required equipment and software, including necessary upgrades. This process is, however, is compounded when staff are geographically dispersed from the institution, disconnected by time, or where access to technology and Internet connectivity varies greatly between the institution's sites. Much of these issues can be beyond the control and capacity of staff to alter. However, in terms of a staff-led approach to address such issues and empower others, a robust professional development program on digital technology is but one means to help stem the digital divide between staff 'haves' and 'have nots'.

Keywords: digital equity; digital divide; social justice; educational technology; higher education; professional development; educational equity

Introduction

Digital equity is a social justice issue which involves giving voice to the twin, and often intertwined, issues of underrepresentation and under-empowerment. Both themes are identifiable in the broad arena of educational equity. Underrepresentation relates to participation of particular sub-groups within a given population in light of their actual percentage in the overall population. For students in higher education, growing concern at an Australian governmental level drew our attention to these underrepresented in the mid 1960's, later operationally defining these sub-groups in the mid 1990's in the Martin Report (Martin, 1994). The focus on underrepresentation of staff in higher education has been a different matter. While it is slowly being addressed – such as Indigenous academics and women in management – there is still much to be done. However, this discussion is beyond the parameters of this paper.

In the mid 1990's, and around the same time as the operationalisation of the underrepresented student groups in higher education, the concept of digital equity crept into our academic consciousness, emerging in relation to the introduction of computers for teaching and learning. Digital equity relates to the second aspect of social justice – underempowerment – wherein individuals are unable to use technology in ways that would enable them participating fully and equitably in society (Gorski, 2009). The solution for underempowerment is "a multi-dimensional social process that helps people gain control over their own lives" (Page & Czuba, 1999, p. 1).

Digital equity

Digital equity is defined as "equal access and opportunity to digital tools, resources, and services to increase digital knowledge, awareness, and skills. [D]igital equity is more than a comparable delivery of goods and services, but fair distribution based on…needs (Davis et al., 2007, n.p.). This definition highlights that digital equity is not simply about access and distribution. It is also about knowledge skills and awareness so that the technology can be used to its full capacity.

Initially the digital equity concerns for students in all education sectors was over the digital divide – the gap between the 'haves' and 'have nots' – and focussed on access to computer hardware and connectivity. By the end of the decade however, theorists in the fields of multicultural education,

critical theory and feminist studies (cf. Spender, 1995) were contributing to the expansion of the concepts of digital equity and the digital divide. Their scholarship, and those since, have helped move the notion of the digital divide beyond a simplistic view around hardware and connectivity (cf. Gorski, 2009), to refocus our understanding of it as a complex and multi-dimensional (cf. Willems, 2010) field of study. As such, digital equity goes far beyond access to hardware and connectivity. For example, when access to hardware and connectivity is resolved, questions still remain about how current is the hardware, can the necessary software or updates can be afforded, how swift is the Internet connection speed, or how is the technology is used? These are but some of the complex considerations. As Makinen (2006) has noted, bridging gaps in physical access to technologies is not sufficient a solution to the complex problem, especially "if we fail to address the gaps in opportunity actually to use the technologies in ways that empower people to participate more fully and equitably" (Gorski, 2009, p.352). The context of higher education in Australia is no exception. While this issue of under-empowerment has been investigated concerning students (cf. Willems, 2010), digital equity as a staff issue in higher education has received less attention in the literature (Willems, 2011). When discussed, it often relates to the digital divide in terms of a skills and knowledge comparison *between* students and staff, with digital immigrants attempting to colonise the world of digital natives (cf. Prensky, 2001a, 2001b). Yet this is but the tip of the iceberg.

Digital equity and the empowerment of staff in higher education

What are some of the digital equity issues for staff in higher education in terms of their disempowerment in the workplace? Some relate to personal factors such as knowledge and skills. Others relate to geographical location and/or isolation. And still others relate to technological access. Sometimes these various facets compound. When added to other staff equity factors, the experienced issues have the potential to compound for the individual staff members. Table 1 attempts to identify some of these aspects.

Table 1. Facets of digital equity for staff in higher education

Staff Social Justice Aspect	Facet	Potential Impacts	Potential Digital Equity Impact(s)
Underempowerment	Geographical dispersion or isolation	Lack of connectivity and equality in terms of technology access and updates	Widening gap between technological advantage and access
	Disability	Accessible technology and content	Widening gap of digital participation
	Technological diversity	Technological inequality in terms of technology diversity of technology in the workplace	Widening gap of digital participation
	Technological access	Lack of, or impaired, access to equipment and software, including necessary upgrades.	Widening gap of digital access
	Diversity in knowledge and skills	Gap in skills and knowledge base for staff	Digital marginalization; Widening gap of digital literacy

The social justice goal of the digitally underempowered, or even disempowered, is to facilitate empowerment (Marullo & Edwards, 2000). Yet many of the digital equity issues can be beyond the control and capacity of staff to alter. This may at first appear deterministic, and that there may be little which can be done about these external forces upon the individual. Yet the work of Bandura (1989) suggests that through personal agency, solutions can be found to change what one can. As Bandura notes, personal agency:

> is achieved through reflective and regulative thought, the skills at one's command, and other tools of self-influence that affect choice and support selected courses of action. Self-generated influences operate deterministically on behavior the same way as external sources of influence do… It is because self-influence operates deterministically

> on action that some measure of self-directedness and freedom is possible. (1989, p.1182)

That is, through personal agency, there are things that staff can do to change their situation both reactively and proactively to empower themselves and others in spite of the factors external to one's control or influence, such as institutional technology choices. One solution for a staff-led approach to address such issues and empower others is the creation of a robust professional development program on digital technology to help stem the digital divide between staff 'haves' and 'have nots', so that they can participate in the workplace fully and equitably.

Driven by a needs and skills analysis to identify technological issues encountered by staff in their daily work functions and existing skills gaps, a locally generated but centrally supported professional development approach could be adopted. Facilitated where possible by staff champions to address issues identified in the needs analysis and showcasing, for example, technological work-arounds identified in the workplace, it represents a 'bottom up' approach for personal agency.

Some issues to consider in the constructions of technology-related professional development programs is to examine the developed program through the lens of various underrepresented and underempowered sub-groups of the academic workforce to see where the program weaknesses are. Can all staff access physically and/or virtually the content? What mechanisms are built in to review the program from their perspective? Where skill development is the target, is the learning scaffolded appropriately? Do all staff have supported access to the programs? Is the content created in such a way that it can be accessed by those who it is intended to target? The list goes on.

The development of the program need not be a costly exercise. It could involve gathering staff together to view, resources already created by others, or hearing the enthusiasm of others. Exemplar sessions could include the following ideas:

- establishing a regular time and space for local professional development to take place as an investment for all stakeholders
- viewing as a team a video such as a TEDx talk on a particular subject, followed by a staff discussion around some pre-determined reflective questions
- organising a group participation in webinars run by professional agencies or organisations such as ASCILITE with a brief staff discussion to follow on how the technology and information might be useful locally
- holding 'speed dating' sessions in which staff are divided into small groups and rotate around the room in their group, visiting pre-chosen colleagues showcasing a particular technology or app that they have found useful for teaching and learning and why
- arranging a structured staff excursion to a local technology store to play with the devices on display

The building of a robust technology-related professional development program to address these complex challenges by scaffolding knowledge and skills, and assisting access to and use of technology tools (ISTE, 2006). It also helps address one of the issues highlighted as part of empowering the disadvantaged and that is social connectivity, so that "the individual and community are fundamentally connected" (Page & Czuba, 1999, p. 1). The value of staff empowering staff through the development of their own digital technology professional development programs driven by localised needs analysis is that it meets some of the objectives in overcoming underempowerment by the reduction of staff isolation and potential alienation from others and the institution by helping them feel connected and part of the 'whole'. As Marullo and Edwards (2000) sum up, "Such changes are to come about through altering institutional arrangements by redistributing resources and enhancing capacities of those with less, so that such institutional operations no longer maintain such inequities" (p.898). Digital equity for staff in higher education is indeed is an area that requires ongoing research.

Conclusion

In summary, to bolster staff technological empowerment, it is beyond simply redistributing resources that digital inequity will be overcome. It is also through the enhancing staff capacity through

connectedness between individual and the broader community that is a crucial facet. In line with this, the paper argues that a concerted and targeted staff professional development is but one means to help stem the continuing digital divide. It is a means of overcoming helplessness and fostering personal agency.

In terms of social justice issues, digital equity is an issue concerning not only students in higher education, but also staff. This paper has demonstrated that employment at an institution is not necessarily safe guard staff from the digital divide. Promoting awareness of this issue through publication and research is a way in which these challenges can begin to become visible and start being addressed. If institutions of higher education wish to be seen as actively striving to overcome aspects of digital inequities, then these inconsistencies need to be identified, articulated, faced, and actively pursued. It is an issue of academic integrity.

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