

**ICT and Media
As Vehicles to Build an Inclusive
Learning Society**

Stimulus Paper

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Digital Education Research Network

The Digital Education Research Network (<http://www.dern.org>) demonstrates the importance of highlighting and disseminating quality research into the use of digital technologies and media in schools, training, higher education and life-long learning.

Since the early 1980s, when computers were first introduced into schools, there has been a paucity of quality research into the effect on teaching and learning of using digital technologies as distinct from reviews and evaluations about using digital devices. Then in the early 2000s, when the internet became widespread through the use of browsers, education authorities funded a range of programs to build online networks in education but the questions about the effect on teaching and learning remained uninvestigated. The Digital Education Research Network seeks to support education by addressing some of the issues that have a bearing on the use of digital technologies in teaching and learning, so that educators can plan on the basis of research and evaluation experience, as opposed to the many media myths, such as digital natives, about technology use and the corporate promotion of technological devices that shifted the focus away from pedagogy.

When considering the use of digital technologies in teaching and learning, an important point to note is the convergence of formal and informal learning. In fact, the Australian Communications and Media Authority noted that for young Australian people, the use of educational activities on the internet was the most frequent although this use of digital technologies occurred more so in the home than in a formal education setting. Furthermore, learners who used computers and the internet at home have been noted in the research to have improved learning performance. The point that is being made here is that the distinction between formal and informal learning has become artificial in a networked world. The Digital Education Research Network is focussed on research into teaching and learning using digital technologies across the spectrum.

Digital Education Research Network

The Digital Education Research Network was initiated by the Australian Council *for* Educational Research which is a pre-eminent research body based in Melbourne, Australia, that operates globally. The Australian Council *for* Educational Research has a very strong and valued presence in educational research, testing and publishing, and prior to implementing the Digital Education Research Network, it had been monitoring the increasing impact that online services were having in education, testing and research. In 2008, a decision was made to explore the impact of information and communication technologies (ICT) in education and the elements for a service such as the Digital Education Research Network emerged from discussions.

Every week the Digital Education Research Network publishes and weekly notifies registered users about a new review of quality research where digital technologies have been deployed or where trials of new methods have been reported that advance knowledge into teaching and learning. At the time of writing, the Digital Education Research Network had over 65,000 registered users spread globally, and it had published and disseminated over 80 reviewed items that have included research works, reviews of literature or trials seeking to understand effective teaching and learning pedagogies using ICTs.

Management

The Digital Education Research Network is managed by the Australian Council *for* Educational Research through a Digital Research Group (DRG) of high level experts in the use of online services and educational research. A Digital Education Research Network Reference Group, drawn from international experts in the field, provided valuable advice and comment on the development of the service in its early stages. When the Digital Education Research Network commenced, early in 2010, as a trial beta version, it was regarded as an innovation in promoting research, in an area where there appeared to be significant knowledge gaps.

Initiation

The Digital Education Research Network was initiated in Melbourne and since 2011 has been managed from Adelaide in South Australia. This has been possible through the use of electronic systems for messaging, arranging meetings, online consultation, online document sharing, online collaboration and most importantly of all, through access to open journals, research and reports of trials, surveys and reviews on open access services, and national and international government reports published openly online. In fact, it is noteworthy today that the critical mass of quality research and reviews in the field of educational technology are mostly accessible through open online services.

City of Adelaide

South Australia is largely a desert state, centrally located in the South of the country and administered from the coastal city of Adelaide. Adelaide, as a city based on the Fleurieu Peninsula, spans approximately 20 kms from sea to hills (East to West) and 90 kms along the coast, with a population slightly over 1.2 million people (2006). The remainder of the state has another 300,000 people concentrated mostly in two oases (Barossa Valley & Clare Valley), two man-made city regions (Iron Triangle & Riverland) and a lush south-eastern region. The Adelaide Hills, surrounding the city and beyond, are well known for their beautiful landscapes and production of Australian wines.

Although Adelaide boasts a range of industries and services, it is notably an education city with three major universities and also campuses for another four (soon to be five) international universities. Primary and secondary education (~600,000 students) is divided between state education (~70%), Catholic Education (~20%) and Independent education (~10%) although the three sectors work closely together. School and higher education are supplemented by a number of large colleges for

technical and further education spread throughout Adelaide and the state, and a number of local government councils have developed community programs. The Australian Council *for* Educational Research has an office in Adelaide from which the Digital Education Research Network service is operated and managed.

Success factors

The Digital Education Research Network has been successful for two main reasons. The first is that there is a need for educators to be able to access quality research about the use of ICTs in education especially because of its transformative nature. In addition, the use of ICTs in education has increased the costs of education significantly, so that decisions about change and improvement that include the use of ICTs have considerable impact for future planning. Secondly, the Digital Education Research Network has built on two fundamental principles for successful online services. They are the development of online trust (reliable, regular, predictable) with the users and a quality of service. The Digital Education Research Network publishes quality research reviews, written by experienced educational leaders who understand education and research. The research report/article reviews are posted on a regular basis and on the same regular day, so that users can rely on weekly posts. Furthermore, the quality of the reviews is acknowledged by the users through online comments. Research reviews can address areas of concern such as 21st century skills, assessment, connectivity, collaboration, engagement and performance, equity, eportfolios, effects on teaching and learning, information, innovation, personal networking, learning spaces, mobile learning, pedagogy, safety and education trends. These are all areas of concern for educators in a research field where the quantum of quality research is relatively small but can now be easily located through the Digital Education Research Network.

Further development

The success of the Digital Education Research Network over the preceding 18 months has encouraged the Australian Council *for* Educational Research to expand the Digital Education Research Network's online presence and to develop further innovative services for registered users. The Digital Education Research Network's vision is that educators will become familiar with the accumulation of research evidence provided by the Digital Education Research Network and use it to inform plans for improvements in education and generate transformative plans for new methods of engaging students in education.

A new Research Advisory Group will be formed to extend the current network within the technology in education research field in order to promote the Digital Education Research Network and to provide advice about quality research for review and dissemination. The Research Advisory Group will operate through online collaborative services and members will be drawn from a range of international education and research bodies. In summary, global access to the Digital Education Research Network and the international spread of its users to date are testimony to the need for knowledge in the use of digital technologies in education, as opposed to the promotion and exploration of electronic devices.

The Digital Education Research Network demonstrates the capacity of online services to enable a community of educational researchers to promote and disseminate quality research and reviews about the use of digital technologies and media in education on a global scale. In this way, the Digital Education Research Network community supports education by providing a foundational reference point for educators looking for evidence about the use of digital technologies and media, in order to plan for educational transformation and improvement.

For discussion

1. What do you see as the strengths of the Digital Education Research Network?
2. What do you think could be done to improve the usefulness of the Digital Education Research Network research service for the community of educators?
3. How could the Digital Education Research Network further improve the online engagement of educators in educational research?
4. What additional services could the Digital Education Research Network include to further support the community of educators seeking to implement digital technologies or change its use?
5. What are the advantages and disadvantages of online education research services such as the Digital Education Research Network?

Dr Gerald (Gerry) White is the author of this paper and a Principal Research Fellow with the Australian Council for Educational Research. Gerry's focus is on the use of digital technologies and media in education with an emphasis on community, teaching and learning, and student engagement, performance and assessment. Gerry has been a teacher, School Principal, lecturer, consultant, head of an education system and most recently, the founding Chief Executive of the Australian national technology agency for education and training for 10 years.

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