The Professional Development of Human Service Professionals in Rural and Remote Areas: Investigating the Affordances of the Internet

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Abstract: This paper is a report of work-in-progress on a project that seeks to identify effective ways in which the Internet can be used to overcome the isolation of human service professionals employed in rural and remote areas. Professionals employed in rural locations in Australia will be surveyed and interviewed with regard to their needs, awareness, use and benefits of the Internet for professional development and support. Guidelines will be produced to document strategies for the design and delivery of effective use of the Internet to support and assist professionals in rural and remote areas.

Introduction

Retaining human service professionals—such as teachers and health care workers—is a huge problem in many rural and remote areas of the world. The overall objective of this paper is to report on work-in-progress that seeks to identify effective ways in which the Internet can be used to overcome the isolation of professionals employed in these remote regions. More specifically, the research described will use surveys and interviews to:

- Identify the *level* of professional development and support that is available through the Internet to professionals working in rural Australia;
- Assess the *use* of this professional development and support, and
- Identify the perceived *needs* and *benefits* of the professional development to the professionals in these remote areas.

The findings of this research will provide a basis for informed decision making on the design, development and provision of professional development and support through the Internet for a wide range of professions working in rural Australia as well as the training needs to access such support.

Background

There is a growing concern that reduced outcomes in health, education, employment and technology in rural Australia have the potential to undermine national cohesion (House of Representatives Standing Committee on Primary Industries and Regional Services, 2000; Regional Australia Summit Steering Committee, 2000). As a consequence, strategic support for rural and regional areas has become a national priority (Anderson, 2001). Recommendations from these reports document specific strategies for establishing improved social infrastructures and equity of services to enable improved health and education outcomes, better employment pathways and improved telecommunications. Attracting and retaining professional and para-

professional staff in regional and rural areas is recognised as a significant factor in improving many of these outcomes.

Compared to their metropolitan counterparts, rural communities face a number of reduced health outcomes. These include higher mortality rates, higher incidence of cardiovascular disease, preventable accidents, cancer and diabetes, higher rates of youth suicide, higher rates of hospitalisation and reduced access to medical practitioners, nurses, midwives, pharmacists, dentists and other allied health professionals (National Rural Health Alliance, 2001). This trend is also observed in American rural communities (National Rural Health Association, 1998).

Similarly, educational outcomes are reduced for rural compared to metropolitan communities. Schools in rural Australia experience a higher turnover rate of staff than metropolitan schools (Tomlinson, 1994). A high turnover of inexperienced staff results in schools lacking stability and program continuity, with clear disadvantages for students (Human Rights and Equal Opportunity Commission, 2000). The commission has documented the reduced quality of educational outcomes achieved by rural students in respect of literacy, numeracy, retention rates and participation in higher education. While there are initiatives in place to attract professionals not enough research attention is being given to determining effective ways to retain them (Collins, 1999; Murphy & Angelski, 1996, National Rural Health Association, 1998).

The innovative use of information communication technologies (ICT) is argued by a number of researchers as a viable option for providing professional development and support for rural professionals in the areas of health (e.g., Striffler, & Fire, 1999; Sykes, & McIntosh, 1999). The National Rural Health Association (1998) in the United States argues that although much effort has been expended in placement of physicians in rural areas, relatively little has been done to enhance their retention. The association argues that professional isolation is often a reason to leave a rural area and, as in Australia, the association suggests that innovations in information technologies such as the Internet and teleinformatics can become resources for diminishing this isolation.

A number of websites have been developed to provide professional development and support to professionals in rural areas. For example, sites have been developed to provide information, resources and channels of communication for medical, nursing and allied health professionals working in the NSW public health system (Wensley, 1999). Shackcloth (1999) describes a CD-ROM and Internet interactive resource that provides professional development for dentists in rural and remote regions.

In response to the need for continuing professional contact for newly appointed teachers, Herrington and Herrington (2001) have developed a website entitled Mathematics Education on the Web (MEOW) to enable new teachers to keep contacts with their peers and lecturers, and to access curriculum resources. The site comprises: a discussion board, where issues of relevance can be discussed; lesson plan resources, where teachers can download lesson plans to use with their classes; exemplary teaching videos, where teachers can view a variety of teaching strategies demonstrated by expert teachers; and links to a variety of websites including mathematics and professional development resources.

There are some insights into the effectiveness of these and similar professional development and support websites. Watson, Bannan, Clark, and Timmerman (1999) report that in early trials of Internet use, web-based discussion forums proved unsustainable mainly because allied health workers appeared not in the habit of accessing them on a regular basis. However, email-based discussion lists (listservs) appeared to be more successful with participants indicating that this form of communication helped reduce their professional isolation.

Methodology

Using a variety of databases and direct contact with a range of individuals and organisations, the researchers are conducting a systematic review of the literature on the use of web-based resources for the professional development and support of professionals working and living in rural communities. This includes Australian and international literature, together with additional sources of information. The review of the literature focuses on such issues as:
- the professional needs and benefits in relation to web-based professional development and support,
- the factors that facilitate/hinder the professional use of web-based professional development and support

- the design and functionality of resources
- approaches to IT training for professionals

Professionals working in rural areas of Western Australia and Queensland will be selected for the study. These states have been chosen as they both have large remote areas with geographically dispersed rural communities, and both have a long history of responding to the special needs of these communities (as evidenced for example, by both states' extensive distance education and health initiatives). As such they provide a diverse sample from which generalisations can be made.

The professionals will be contacted by mail via relevant government agencies which include the Education Departments of Western Australia and Queensland, Health Departments of Western Australia and Queensland and the Aboriginal Medical Services. A postal questionnaire will be developed and sent to each professional identified as working in a rural area. Surveys will be undertaken to elicit information on:

- demographic data (e.g., age, qualifications, period of employment)
- needs, awareness, use and accessibility of professional development and support that uses ICT
- benefits/drawbacks of professional development and support that uses ICT
- their beliefs about the impact of ICT in ameliorating professional isolation
- perceived barriers to using ICT
- their IT competence

The initial data analysis will be conducted by profession, examining in detail the effectiveness of ICT on overcoming professional isolation. The analysis will:

- assess rural professionals' *use* of web-based professional development and support resources. For example, are they aware of relevant sites? Do they access these sites. What level of interactivity do they engage in?
- identify professionals' perceived *benefits* of web-based professional development and support resources. For example, are relevant sites helpful?
- identify professionals' perceived *needs* for web-based professional development and support resources. For example, what other resources and supports are needed? What further training do they need to benefit from these sites?

The findings from this research will be used to develop a broad analysis of the impact of the Internet on professionals working in rural communities, and its effectiveness in ameliorating professional isolation. In this part of the analysis, particular attention will be paid to:

- identifying any generic impacts of ICT on professions
- identifying impacts which are likely to be pertinent to specific professions
- identifying effective generic design and implementation strategies
- identifying effective design and implementation strategies specific to certain professions

The findings of the analysis will be the basis of a concise draft report that will be distributed to various stakeholders (State and Federal Government agencies, tertiary and higher education institutions, and professional associations) seeking further comments and suggestions. Such information may form the basis of a more informed approach to the retention of professional in rural and remote regions of the world.

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