

Computer-Mediated Social Networking for Mentoring of Health Professionals

Sarah Stewart

Otago Polytechnic, Dunedin, New Zealand
sarahstewart07@gmail.com

Abstract. Health professionals (HPs) appear to be aware of computer-mediated social networking in terms of the software, but there are few examples of it being integrated into clinical practice, education or professional development. Yet social networking has the potential to play a role in the facilitation of mentoring support and professional development which has been recognized as vital to maintaining the recruitment and retention of HPs. This paper describes an ongoing study that is investigating how nurses and allied health staff are making use of an email e-mentoring system that was set up in 2007. The staff have not engaged with the closed email e-mentoring system because of a lack of understanding of mentoring especially in an online context, poor computer skills and an inability to develop a mentoring relationship at a distance. Whilst social networking may not solve all these issues, it has the potential to facilitate a community approach to mentoring which increases access to learning and support opportunities.

1 Introduction

Health professionals appear to be aware of computer-mediated social networking in terms of the facilitation tools such as blogs, wikis, instant messaging programs and ‘voice over Internet protocols’ but have not engaged with them in a large way [1]. There are a few articles in health literature that discuss the possible implications for clinical practice and education but only as commentaries. Social networking has the potential to facilitate reflection, and encourage learners in managing their own learning ‘any place, any time’ [2]. Blogs are a valuable networking tool for medical students, especially for international students [3]. Social networking tools will support communities of practice as well as education and professional development [4].

Consider midwifery, one of the health professions. Midwives have been participating in online networking since the early 1990s, mainly in the form of email discussion lists and bulletin boards. As a rural midwife, Stensland Kurokawa [5] wrote that computer-mediated communication (CMC) by means of email enabled her to keep in touch with colleagues. This reduced her geographical and professional isolation and allowed her to remain up to date with the latest evidence and information about clinical practice. CMC gave her the opportunity to improve her ‘skills as a rural midwife’. Stensland Kurokawa hypothesized in 1996 how wonderful it would be if midwives got together to devise a research project, carry it out and write a paper, all by email.

Email discussion groups appeared to proliferate in the USA but spread throughout the rest of the international midwifery world. In 1997, the New Zealand Midwives' Email Group was started. An analysis of the emails found that the content focused on discussion of clinical questions and current professional issues [6]. It was the sense of community or 'sistership' that the List promoted which was of particular value to the members. Sinclair [7] and Huntley [8] both emphasized the value of CMC for clinical debrief, finding information and seeking feedback about clinical practice issues.

Now email discussions groups seems to be the most commonly utilized form of computer-mediated networking. There appears to be two main denominators that brings midwives together in email groups: geographical location, for example the group for New Zealand midwives (<http://www.nzmidwife.net/nz-midwives-email-list>) and common interests such as research (<http://www.jiscmail.ac.uk/lists/midwifery-research.html>) and the promotion of homebirth (<http://health.groups.yahoo.com/group/homebirthuk>) [6]. A handful of midwives maintain blogs (<http://sarah-stewart.blogspot.com>) and a smaller number utilize wikis (<http://www.wikieducator.org/Midwifery>). A small community is developing in Second Life (<http://sarah-stewart.blogspot.com/2008/02/invitation-to-midwifery-meeting-in.html>). The Midwifery Information Digest and Service (MIDIRS), one of the most significant international midwifery organizations regularly broadcasts free web seminars (<http://www.midirs.org>). Despite these endeavors, the main focus in midwifery literature tends to be on how midwives can develop their skills of using more 'tangible' Internet functions such as computer information systems and electronic medical notes [9].

There are a number of barriers to the use of computer-mediated social networking. A lack of computer skills amongst HPs has always been a major problem although it appeared to be improving slightly [10], possibly because HPs are developing computer skills in their undergraduate education programs. However, a recent major study in Australia that surveyed 10, 000 nurses (44% response) about their computer skills concluded that nurses continued to have a low level of competency and confidence [11]. They were also impeded by their lack of computer education and training, lack of access to computers and technical support. Work load and time constraints are also major barriers [12]. HPs can be quite skeptical to the efficacy of online social networking to provide support and professional development. In a survey of New Zealand midwives only 31% (n=212/683) of participants felt that mentoring support could be provided by email, 11% (n=75/683) video-conferencing and 12% (n=82/683) instant messaging [13]. The irony is that computer-mediated social networking may help address some of the challenges that face HPs today.

2 The Challenges That Face Health Professionals in Clinical Practice

Health professionals (HPs) face a number of issues in this increasingly complex world that we live in. The demands on HPs include ever-increasing statutory and professional requirements in order to maintain professional registration; necessity to stay current in order to provide an evidence-based clinical service and guide patients/clients as they make informed decisions about their care; fear of litigation; unsocial and unpredictable working patterns to name but a few [14]. When one

considers these demands, it comes as no surprise that recruitment and retention is a global problem, underpinned by stress, burnout and decreased job satisfaction [15]. Shortages of staff increase occupational pressures, which exacerbate retention problems and so the cycle continues. For rural practitioners, the problems are further intensified by geographical and professional isolation. Difficulties in attracting locums to a rural practice make it very difficult for HPs to have regular time away from the job for holidays and professional development [16].

One of the keys to successful recruitment and retention is the provision of social and professional support [17]. This can be provided in a number of ways: mentoring, communities of practice, face-to-face networking, formal education programs, informal learning activities such as journal clubs and project groups [18]. Mentoring is usually provided in a relationship between a more experienced person and the learner [19]. Mentoring often occurs in a one-to-one context but can also be carried out in a group situation. The functions of mentoring include sharing knowledge, sponsorship, socialization into the profession, help with career development, counseling and friendship [20]. Some of the responsibilities of the mentor are to support the mentee in her personal learning, create networking opportunities, provide a safe, non-judgmental environment for reflection and debriefing [19]. In the health, mentoring takes place in both formal and informal face-to-face forms, ranging from structured mentoring programs to informal sessions in the staff coffee room [13]. As yet, HPs have been slow to utilize computer-mediated social networking as a way of providing mentoring support.

3 Developing an Email e-mentoring System to Provide Support and Professional Development to Allied Health Professionals

In an effort to address the support and professional development needs of a group of nurses and allied health professionals employed by BlueCare in Queensland, Australia, a web-based email e-mentoring system was devised in 2006. Participants were able to access the email system from any computer. E-mentoring was seen to be a strategy to deal with BlueCare's ongoing recruitment and retention problems, and provide support to people who were scattered over a large geographical area. Ethics approval was given by the Medical Ethics Research Committee of The University of Queensland. A small pilot study was carried out early in 2007.

The email system was closed and could only be accessed by people with an allocated user name and password. The emails were secured by Secure Socket Layer. It was specifically designed to be closed in order for the emails to be kept completely confidential. This is particularly important for health professional who may divulge sensitive material about themselves or patients. Participants were enrolled into two groups: the experimental group were mentored, the control group continued on as normal. Of 9,000 employees only 20 people volunteered to be mentored: 10 were allocated to group. Two mentoring couples from the pilot study continued in the system. Mentees were matched with mentors according to age, gender, profession, needs and experience [21]. The majority of participants were enrolled into the system by July 2007 and it was planned to run the study for one year. Evaluation of the system

was to be carried out by measurement of stress, burnout and job satisfaction before and after the study. Comparisons were to be made to see if there was a difference between the control and experimental group. The aim of this was to see if mentoring did actually make a difference to the mentees' feelings about their work and thus impact on their decisions to stay employed with BlueCare. Numerical and content analysis of the emails was also to be carried out in order to describe the mentoring activities.

The mentees and mentors were provided with an education package about mentoring and using computer-mediated communication. Instructions about using the email system were also given. All information was provided as documents attached to the mentoring web site. Once the matched pair had made contact with each, they were encouraged to complete a mentoring contract in which they agreed terms for the relationship [22]. The researcher was available by email to answer queries. A technician was also available to deal with technological problems.

4 Results So Far

By the end of January 2008 after six months, it became clear that the mentoring system was not working. The two pilot relationships had broken down because both mentees had left their BlueCare without informing the mentor or researcher. Only one of the ten couples emailed each other and that was approximately once a month. One couple exchanged a mentoring contract. Two couples had not emailed each other at all. The average number of emails that the other couples sent to was four. One couple also used the telephone when they were first matched together but this made no difference to the overall outcome.

When it became evident that the participants were not engaging with the system the researcher contacted the participants by telephone. The informal feedback indicated that nearly all the participants continued to be very interested in the concept of e-mentoring because it opened up opportunities for support and development that would not normally be available due to the location in which they worked. Two mentees felt their 'need' for mentoring had passed as they received the support they required in their immediate location. The other mentees liked the idea of having a mentor available that was not their immediate manager. Several participants struggled with the technology. Nearly all the participants felt they were too busy to use the email system when they were at work, but did not feel it was an activity they wanted to engage within their out-of-work hours. Nevertheless, they felt the flexibility of asynchronous communication was valuable. The mentors were keen to pass on the benefit of their experience. Development of computer skills was seen as an advantage of this study, as was the challenge to their thinking about mentoring.

At the time of writing this paper, all participants agreed that it was time to conclude the study. However, formal telephone interviews will be carried out to find out exactly why the participants did not engage with the email system and develop recommendations for further development of the e-mentoring concept.

5 Can Mentoring of Health Professionals be Carried Out Using Computer-Mediated Social Networking?

The one-on-one closed email system did not work for this group of health professionals so in thinking about the future development of e-mentoring the question is whether it can be carried out using computer-mediated social networking. Professional and geographical isolation, time and financial constraints, as well as lack of access to a suitable mentor are all issues that prevent mentoring occurring in the HPs professional context [13, 23]. In general terms, social networking may go some way in addressing these challenges. The elements of mentoring such as reflection, career development, professional development, networking, and dissemination of information have all been identified as outcomes of social networking [24, 25]. The flexibility of asynchronous communication in the form of email, blogs or wikis overcomes time constraints, and particularly suits HPs who work unsocial and unreliable hours. It also allows people to consider what has been written and make a reflective response as opposed to what can happen in a real-time environment [26]. The Internet opens up opportunities to access people anywhere in the world who may better suit the mentee's needs, as opposed to restricting the mentee to whoever is available locally. Video conferencing allows visualization that allows people to connect and capture non-verbal communication. Sharing of knowledge and professional networking is facilitated globally by means of RSS and social bookmarking that is just not possible in a closed one-to-one face-to-face relationship [27]. There are concerns about security of communication in mentoring relationships. Discussion of patient details or sensitive events would need to be kept in a closed environment. However, an analysis of emails sent in the e-mentoring pilot study showed no patient data or sensitive information was disclosed [28].

There appears to be a number of reasons for the poor uptake of the system described which include lack of understanding of mentoring especially in an online context, poor computer skills, inability to develop a mentoring relationship at a distance, and attitude to life-long learning. Whilst social networking may not solve all these issues, it may go some way to capturing people's interests and engaging them by bringing them into a community [18]. Taking a community approach to mentoring using open social networking tools spreads the mentoring 'load' and allows the mentee to have access to more than one perspective on an issue, and increases access to knowledge and networking opportunities. It also allows peer support i.e. for mentors to support each other and mentees to support each other [29]. It creates the opportunity for inter-professional mentoring, which is an area that has had little attention paid to it. Information can be shared and presented in mediums other than text that engage all types of learners. This may be particularly useful for sharing knowledge about using technology and understanding mentoring in a virtual place. Role modeling by others will encourage HPs to think of their development in terms of life-long learning that is equally of value outside of their workplace [30].

Nevertheless, for HPs, considering their low level of skills and motivation it will still be very important to provide support and scaffolding/moderation within the community so that they are 'mentored' into using social networking [31]. It may also be prudent to use CMC alongside more traditional technologies which are more readily accepted by HPs such as cell phones. For example, integrating a tool such as Twitter which can be

easily used by cell phone into professional development programs may be less challenging to HPs than tools such as blogs and wikis which are completely new to them. Consideration should also be paid to overcoming technological barriers including poor Internet coverage, especially in rural areas. Recording online meetings and seminars and making them available by CD may go some way to overcome technical issues.

6 Conclusions

How to integrate computer-mediated social networking into HP's clinical and professional practice in a way that is meaningful for them is clearly an area that needs further research and development, keeping in mind the barriers that inhibit their online interactions. But as the global shortage of HPs grows, it is becoming imperative that alternative ways of supporting, mentoring and educating HPs are explored and advanced.

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