RESEARCH ROUNDup

Keep up to date with new Australian primary health care research

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Primary health care and social networking: Opportunities to enhance communication

The use of social networking technologies in health care and education is known as Health 2.0.[1,2] Health 2.0 incorporates principles of open access, user-generated content and networking in order to personalise health care, collaborate and promote health education.[1,2] Social networking technologies that are relevant to primary care include blogs, microblogging websites such as Twitter, wikis and podcasts.[2,3,4,5,6,7,8] This *RESEARCH ROUNDup* focuses on the ways in which a range of emerging information and communication technologies can improve collaboration between primary health care professionals and across health care sectors.

How can social networking technologies be used by primary health care professionals?

Wikis

A wiki is an on-line space, where individuals are able to collaborate on a range of projects, by freely adding, editing and sharing information with other participants.[3,4,6,7] Perhaps the most widely-known example of a wiki is *Wikipedia*, which has been shown to be as accurate as non-editable on-line encyclopaedias.[3,6,7] As wikis are web-based, no new software is needed in order to use these tools,[6,7] meaning that they are virtually free for anyone with an internet connection. The collaborative nature of wikis provides reliable quality control, in that outdated or inaccurate information can be rapidly edited out by the community of users.[7] However, the accuracy of the information in any wiki is dependent on the size of the community, their expertise and experience and the frequency of their engagement with the tool.

wikis have the potential to enhance communication and collaboration between primary health care professionals, as they are easy to use and can be utilised to access and share knowledge at any time and place, facilitating collaboration across geographic boundaries. In particular, they are likely to benefit rural and remote professionals, as a means of addressing the isolation and access barriers faced in these areas.[9] Current examples include the use of wikis by numerous conference organisers, which enables delegates to exchange information and network prior to the event.[6] Similarly, wikis can be used during the conference and can therefore encourage participation and engagement from non-attendees. Outside of conferences, wikis can be set up to share information in a particular subject area, incorporating the views of a range of experts worldwide. For example, the Fluwiki.com has been used as a source of reliable, up-to-date information that has been valuable in community planning efforts for a potential avian influenza outbreak.[3,6]
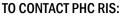
Blogs and Microblogs

Blogs are essentially content-management tools, with information and any accompanying links and attachments presented in reverse-chronological order.[3,4,6,7] There are numerous examples of blog networks, where users link to other blogs covering the same topic, enabling easy navigation.[4] Like wikis, blogs are easy to create and update, with a range of free blogging tools available on-line.[4] Microblogging is essentially the same concept, only with briefer entries.[5,7] The most widely used example is Twitter, which imposes a 140 character limit on each entry.[5,7]

Blogs provide an opportunity for primary health care professionals to communicate ideas to their peers, and to build new connections and partnerships through following blogs that are of interest to them. Currently, the majority of health-related blogs are created and accessed by lay users, with little or no input from health professionals.[4] Opportunities exist not only to increase professional participation in these blogs in order to improve accuracy and create a new means of communication with consumers, but also to establish networks of blogs that are particularly relevant to primary health care workers. Examples include blogs focusing on professional education, policy reforms and discussions about specific areas of primary care incorporating clinical cases and images.[6] Similarly, microblogging tools such as Twitter can be used by primary health care professionals to keep up to date with the latest developments in various professional organisations, be alerted to new information and keep colleagues updated with regard to their own activities.[5,10] Twitter may be particularly beneficial for busy professionals, who can judge whether a topic is relevant to them from 140 characters, rather than having to read through lengthier blog posts or articles. Twitter can also be used to disseminate conference updates to non-attendees,[5,10] providing a real-time account that may be particularly useful for geographically isolated professionals.

Podcasts

Podcasts are audio or visual (vodcasts) content that can be downloaded by users and listened to directly through the computer or by transferring it to a portable device such as an iPod.[3,4,6,7] Thus, information delivered in this format is portable and ideally suited for busy individuals[3] who can

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incorporate listening to podcasts into their regular commute or long-distance travel.

Currently, podcasts are widely used as one method of educating medical school students by providing lecture recordings, audio recordings of textbook chapters and libraries of heart and respiratory sounds.[3,4,6] There are obvious advantages for rural students, who may have difficulties in attending every lecture and would benefit from being able to listen to textbook materials while commuting.[3] This technology can be adapted to provide ongoing professional development and education to primary health care professionals. Making learning materials available in a portable format may be particularly beneficial for time-poor health care workers and those situated in remote locations, for whom physically attending seminars and workshops may be problematic.

Current limitations and challenges

While many primary health care professionals understand the benefits of using emerging technologies, uptake is generally low.[11,12] Common barriers include a lack of ongoing and comprehensive training, costs associated with buying or upgrading equipment, concerns about a potential increase in workload and a preference for the traditional approach to medicine and collaboration.[11,12,13,14] Learning to adopt these new technologies into everyday practice can be frustrating and is likely to require a large investment of time when first implemented.[7]

The main issue pertaining to blogs and wikis is the lack of moderation. Any individual is able to upload and edit information, which may have a negative impact on accuracy.[4,7,15] As users have the option of being anonymous, it is difficult to make judgments regarding the credibility of the available information.[7] Podcasts typically involve large file sizes, which may exclude individuals with unreliable internet connections, such as those in remote areas of Australia.[7]

Future directions

Primary health care professionals need to be actively involved in the design and implementation of these tools in order to address the identified barriers. The design needs to be streamlined, integrated and interoperable, as busy primary health care providers do not have time to use a variety of technologies that need to be opened in separate windows and operated differently.[7,12,16,17] In order to make these technologies user-friendly, they could be integrated into one application, which can be customised according to need.

Financial incentives are likely to encourage adoption of new technologies,[12,13,14,18,19] particularly in rural and remote areas where access to technology is poor[9] and smaller practices, where the relative financial burden will be greater.[20] In remote areas, the poorer internet access and infrastructure issues would need to be addressed.[9,12] Ongoing and comprehensive training and technical support is essential, particularly in rural settings where staff turnover is high and external sources of IT support are limited.[9,12]

Health 2.0 technologies currently in use

Wiki
Fluwiki.com: http://www.fluwikie.com/

Blog
Croakey: http://blogs.crikey.com.au/croakey/

Microblogs
PHC RIS on Twitter: http://twitter.com/phcris
6minutes on Twitter: http://twitter.com/6_minutes

Podcasts
The New England Journal of Medicine podcasts:
http://www.nejm.org/action/showPodcastsFeeds
ABC Radio Health podcasts: http://www.abc.net.au/services/podcasting/subject.htm#Health

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