When Tim Berners-Lee invented the World Wide Web he envisioned the interface to his creation as both a browser and editor of web pages. The web was designed to be read/write, a place for individual people to both read web pages and to write their own thoughts and ideas. This was perhaps too ambitious and for many years the web was mostly read-only. "Experts" would create web pages using HTML editing software and "visitors" would read them in a separate web browser application. If a visitor wanted to dispute the content of a web page or even just add a comment, they could either set up their own website (a reasonably complicated process at the time) or send an email to the "webmaster".

In 2003 the term "Web 2.0" was coined to suggest that this way of using the World Wide Web had changed. Through the use of technologies such as Javascript, XML, PHP and MySQL (to name a few), the web browser became a web editor of sorts. Now that the web was read/write a whole new set of functions and applications were possible. Users could edit web pages directly through the use of Wikis, hold discussion and debates on online discussion forums, and even use websites as word processor and spreadsheet applications.

For many years, health informaticians have been examining and discussing the impact of the read-only web on patients and health care in general. Questions were asked such as "Who is the author of this website?'", "Are they appropriately qualified?'", "How do we list and categorise the thousands of pages of health-related information?'". Now it is time to assess the web again and revisit some of these questions and ask many more. Authorship has become much more difficult to assess, and referencing a dynamic, frequently changing web page presents problems to authors of academic articles. Even the term "web page" may no longer be appropriate as entire productivity applications are delivered through a single, dynamic web page interface.

In this theme issue we start to address some of these questions and ask how Web 2.0 can be used for the benefit of patients and healthcare professionals.

Peter Murray, in his paper, "Web 2.0 and social technologies: what might they offer for the future of health informatics?" provides a comprehensive overview of the use of Web 2.0 in healthcare. Iain Doherty helps us by dissecting out the wheat from the chaff of new buzzwords and terminology used to describe the next generation web and describes some of the more popular Web 2.0 tools in his paper, "Web 2.0: A Movement Within The Health Community". In our paper, "Open Source and Free, Web-based Medical Software" Muzaffar Malik and I examine how web-based applications and Open Source Software are being used in health care. Rosemary Stockdale and Kathryn Thompson in their paper "The role of sociability in developing online health communities for people with diabetes" demonstrate the importance of the commitment of administrators and users to fostering social interaction in their online communities.

Educationalists have been leading proponents of next-generation web tools and in this issue, the role of Web 2.0 in healthcare education is examined by Erich Schulz in his paper about the Gasboys.net educational website and by Merrolee Penman, who looks at the use of blogging in professional education. Both provide a tantalising glimpse of the potential of next-generation web applications for the education of healthcare professionals.

References: