What is health information?
Healthcare and medical information professionals have always been quick to adopt new technology (Kumar and Rawat, 2010; McKnight, 2005). This is, in part, due to the nature of their users: healthcare professionals require their information to be as up to date and accurate as possible. The consequences of not having such information to hand are laid out starkly by HIFA2015:

Every day, tens of thousands of children, women and men die needlessly for want of simple, low-cost interventions – interventions that are often already locally available. A major contributing factor is that the mother, family caregiver or health worker does not have access to the information and knowledge they need, when they need it, to make appropriate decisions and save lives. (HIFA2015, c2010)

Lack of access to information remains a major barrier to knowledge-based healthcare in developing countries. The development of reliable, relevant, usable information can be represented as a system that requires co-operation among a wide range of professionals, including healthcare providers, policy makers, researchers, publishers, information professionals, indexers and systematic reviewers (Godlee et al., 2004).

Before we look in more detail at the potential for Web 2.0 to influence healthcare and medical information, it is pertinent to establish just what is meant by health information.

Broadly, health information consumers divide into two groups: those who deliver care, and those who receive it. Healthcare deliverers divide into two further broad groups: those who have direct contact with patients and those who make a difference to patient care indirectly. Medics, nurses and patient information professionals fall into the first group; librarians, managers, information professionals (including researchers) and health informatics professionals fall into the second group, in the majority of cases.

The direct deliverers subdivide into many further groups: qualified physicians and nurses, medical and nursing students, and allied health professionals are just some. Each group requires a different type of information: the qualified medics and nurses may
require information to enable them to treat a patient, to enhance their own continuing professional development or to prepare a presentation, ward meeting, training session or board paper. Students, on the other hand, may simply require a brief overview of a condition or intervention in order to pass an assignment and build a foundation for their further career development. Members from each of these groups can be found in a wide range of locations: hospitals (or ‘Trusts’ as they are currently referred to in the UK); medical schools; family practice centres; community practices; research environments or private companies.

In terms of those who receive healthcare information, user categories include expert patients and those with no knowledge; and adults and children. All of these users have different information needs, depending upon their condition and other factors.

Web 2.0, with its flexibility, low cost, lack of need for specialized skills, and potential for collaboration and sharing, would seem to offer ideal opportunities to enhance the provision of information and education to healthcare deliverers and recipients alike. Before we go any further, however, it is helpful to place Web 2.0 in some kind of context. We therefore need to define healthcare information settings.

**Healthcare information settings**

**UK NHS settings**

The UK has had publicly funded healthcare via the National Health Service (NHS) since 1948. The NHS aims to ensure that consultations are free at the point of delivery, although patients often pay a contribution for their medications, depending on their level of income, and there is also the option to receive some treatments privately.

In the NHS, most healthcare information professionals work in a library located in an education centre: there are currently 389 NHS libraries listed in the Health Libraries and Information Services Directory (HLISD). NHS librarians will often work in close collaboration with the local universities that provide medical, nursing and other health-based education. A small number may also work collaboratively with universities in specialized research units; within patient information units; or in health informatics roles. A very small number work at Strategic Health Authority (SHA) level, offering advice in a regional context. Many health information professionals work in small special libraries within hospitals or other secondary care establishments, providing books and other information to staff, students on placement and, occasionally, members of the public.

Their roles vary, from the traditional librarian/library manager to the clinical librarian. Some libraries employ specialist trainers or electronic resources librarians. Typically, an NHS librarian will perform some traditional work, such as cataloguing and classification, but the majority of their work will involve collating information via literature searches and current awareness; and user education, whether that takes the form of inductions or dedicated sessions. Staffing levels are generally quite low, ranging from two or three employees in smaller organizations with up to 2000 users, to larger
staff teams in libraries at the bigger teaching hospitals, such as University Hospitals Leicester, where they reflect the larger user base of over 12,000 staff. Healthcare staff may be physicians, nurses, allied health professionals (including physiotherapists and dentists), and student users will be training to enter those professions.

Many NHS library services also serve the local Primary Care Trusts, and in some cases the General (Family) Practitioner (GP) groups, although in practice GPs do not make much use of library services (Cullen, 2002).

This range of information profession roles is reflected in other countries, where they include clinical or hospital librarians, consumer health librarians, and more traditional roles such as cataloguers or circulation librarians.

Other healthcare information settings

A small number of health information professionals also work within research teams and in other settings, including in places other than hospitals and doctors’ surgeries. Such settings include the uniformed armed services, government science laboratories, commercial companies and health insurance organizations.

Health information for patients/healthcare consumers

In the majority of cases, medical librarians do not come into direct contact with members of the public. It can therefore occasionally be difficult to remember that we are, ultimately, there to improve patient care. Our main task is to ensure that medical professionals have access to timely and accurate information to support their practice. Since the early 2000s in particular there have been examples of public and NHS libraries working together (Nair, 2006). The role of Web 2.0 in patient information and public health is explored in more detail in Chapter 7.

The role of information professionals

Information professionals must aim to ensure that healthcare professionals are able to access information compiled by people with sufficient knowledge to make the data authoritative. We must also ensure that users have the critical appraisal tools to decide whether the information provided is of high enough quality for use in treating patients.

We must not lose sight of the fact that the ultimate aim is always the most effective treatments/interventions for patients. In James Gunn’s novel *The Immortals* (1962) there is a description of how computers might revolutionize medicine: an intern carries his entire medical library in his ambulance and depends upon it for diagnosis and treatment. Although this scenario is still rather remote, many providers, including PubMed and UpToDate, offer PDA versions of their applications. Web 2.0, combined with the iPad, Twitter and all that will come after, would seem to be a huge step towards this very responsive and personalized mode of providing healthcare.
We are now witnessing an entire generation who have never known a world without
the internet. For the Net or iPod Generation, Generation Y, or the Millennials, the
internet has been the main source of their information for educational purposes
(Weiler, 2005).

Concern has been expressed by some medical professionals about the quality of
health information on the internet in general (Scullard, Peacock and Davies, 2010) and
on Web 2.0 sites in particular (Lacovara, 2008). Some other schools of thought,
however, regard the best of the Web 2.0 sites as a valid source of health information
(Laurent and Vickers, 2009). Still others concede that there is some useful information
to be found in Wikipedia, but that dedicated medical information databases are better
(Leithner et al., 2010)

There are a range of situations where Web 2.0 applications can be, and are being,
incorporated into the delivery of healthcare information. These include outreach,
education, promotion, engaging with users, information literacy, knowledge
management, journal clubs, patient and consumer support, online collaboration,
provision of tables of contents and other selective dissemination of information. In
Part 3 of the book, projects in some of these environments are examined in more
detail, through practical, real-world examples and case studies.

References and further reading

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