# Book review

# Your guide to E-Health: third millenium medicine on the Internet

## BY PETER YELLOWLEES

*Reviewed by Don Hindle, Visiting Professor, School of Health Services Management, University of New South Wales*

There are two main sets of ideas in this book. The first concerns the ways that the Internet can be used by the average health care consumer to obtain advice from health care professionals or from other people who share his or her health problems. The second concerns the ways in which health care professionals (and mainly doctors) can take advantage of the Internet to improve their own clinical practice, and make a contribution to improving the operation of the health care system as a whole. Many examples are given of uses of both types. Incidentally, there are more references to the scene in the United States of America than in Australia. This may be because there is more information, or in order to stimulate sales in the North American market.

The main emphasis is, however, on the layperson. The target audience is said to be "... people who want to use the internet to improve their health." The author (a practising psychiatrist as well as academic and author) admits he is a consumer of his own advice. Being an indulgent and demanding member of the baby boomer generation, he has "... no intention of being hospitalised except under the most dire of circumstances."

There is a good list of the kinds of people who can benefit the most. They include people who are frequently on the move, the deaf, people with aphasia and similar impairments to communication through other media, and those with chronic conditions who have difficulties in travelling to health care facilities.

Rather surprising is the absence of any mention of the risk of further disadvantaging the disadvantaged. It is already evident that the Internet is mostly being used by the more wealthy and articulate. In a world (and a country) where the gaps between rich and poor have been widening over the last decade, the dangers might have been mentioned and solutions proposed. There is, however, brief mention in passing of the ways that poor countries might improve access through having group facilities along the lines of internet cafes.

The most interesting chapter for me was the one about finding and consulting with a doctor on the Internet. Professor Yellowlees uses Ferguson's simple model of Internet doctors (Ferguson 1998). Type 1 comprises doctors who give a range of general information but who do not attempt to diagnose or treat. Like the medical columnists in tabloid newspapers, they often remain anonymous and rarely offer any guarantees. Some may have a strong commercial motive. The author notes that many Internet doctors of this type earn money by referring their contacts to consulting rooms and hospitals for face-to-face and expensive services. Again, this is more interesting for American than Australian readers, since our public sector care providers can usually find more than enough patients by themselves.

Type 2 doctors are the real thing. Like the author, most of them have normal medical practices which they augment by providing Internet services. They may use the Internet as a way of establishing contacts with new patients, and use it as an alternative (or complementary) way of keeping in touch with existing patients. A growing number of health care professionals are providing services only through the Internet. The author argues that around 25% of "... all health consultations will take place in cyberspace within ten years or so." This reminded me of forecasts about paperless offices and 20-hour working weeks, but the author may be right.

Much advice is given with regard to selecting an Internet clinician. It includes a list of ten questions that the consumer should ask. They include questions about qualifications, credentials, experience, billing, and confidentiality.

The author believes that, by asking the right questions and carefully interpreting the answers, the consumer will find the 'perfect online doctor'. He or she is likely to be someone who is an experienced face-to-face doctor, consumer-focussed, respectful, an expert communicator, skilful analyst of large amounts of health information, and continually learning. The author does not say how he matches these attributes, but his email address is in the book.

One chapter addresses the way that doctors should handle Internet consultations. The main theme is that patients will be better informed, and will be more aggressive in terms of defining the way that the interactions will occur. Doctors will consequently have to be better prepared. They will have to "... lay out their wares, their skills, their products, to an increasingly savvy group of patients." I found this idea a little confusing. Clearly the Internet is creating opportunities for patients to do their own literature searches, and there are increasingly frequent stories of patients who knew more than their doctors. However, the well-informed patient does not become so as a consequence of electronic consultations. There are two important ideas that are not necessarily in a one-to-one relationship.

The same may be said of the author's view that the Internet doctor will have to be more open, to the extent that "... surgeons will detail their infection rates, (and) physicians their drug interaction rates." I do not doubt the value of patients having more information of this type. However, given that the organised medical profession has opposed any kind of comparative process of disclosure of performance for decades, it is unlikely to forget its concerns about misuse of data that are not adequately risk-adjusted simply because the mode of communication is the email or the web page. See the articles by Stephen Bolsin and others in this issue of AHR.

The author argues that the Internet consultation process will focus more on information and education, and there will be much more 'goal setting'. Consumers will demand a different kind of information that is more specific and personalised, and they will insist on understanding what their online doctor is saying. Doctors will worry about their 'email persona' and might even begin to use emoticons (those combinations of characters that depict happy or sad faces).

The author is extremely enthusiastic about the potential, and his two main arguments are simple and mostly logical. First, access to the internet has grown very rapidly. 250 million people around the world are regular users of the Internet, and the rate of use will increase even more rapidly over the next decade or so.

Second, the Internet is a useful medium for communication for people who want advice about their health and health care. It has low costs, it is convenient in many respects, and users can access a wider range of sources than is possible through any other medium. There is the related advantage of the opportunities for greater customer (patient) involvement in decisions about treatment, as noted above.

I am convinced of the potential benefits, if only as a consequence of limited personal experiences. For example, I have found email to be a much more cost-effective medium for communication with graduate students. They think more about their questions, and get faster answers. I have also noticed that telephone enquiries to a variety of service providers have become much more difficult than they used to be - ever since companies have introduced the method of answering by computer (the consumer-friendly approach whereby you can keep making choices by pressing telephone keys until you forget why you started the enquiry in the first place).

A variety of other ideas is canvassed. One that caught my eye is his suggestion that the patient's medical record could be shared by the patient and the care providers. Within a decade, the author believes it will be commonplace for a person to access his or her electronic medical record through the Internet, to read what care providers have recorded there (such as pathology results and the surgeon's operating notes), to check accuracy, and "... even contribute to it yourself." This is an idea of some importance, and well worthy of being promoted.

However, this kind of arrangement (albeit with less of the high technology) has been around for decades in some countries. For example, Sweden has had an electronic record accessible to patients and care providers since 1965. My concern is that the author does not mention other constraints - like the reluctance of some groups of politicians and care providers to allow the global use of the unique person identifiers that are essential to any health record, whether they are accessible by way of the Internet or simply through a more conventional computer network. The author compounds the confusion by arguing that the constraint to an electronic record is simply that "... the individual technologies need only to be integrated and speeded up."

I was also irritated (but not surprised) by some of the arguments in favour of more home care (supported by the Internet) and less hospital care. The author argues that there are attempts worldwide to reduce hospital costs "… by discharging patients as early as possible. This is known as managed care, an intellectually dishonest term if ever there was one." I do not believe many people use the term more dishonestly than the author. Managed care is not all bad, especially in the US where governments have found it impossible to control health care in other ways. Moreover, most insurance companies who use it to cut costs are quite honest about this - they have to be honest about it, because their customers (mainly employers who are worried about the rising costs of health insurance for their employees) want cost reductions. Managed care is, of course, tangential to the main themes of this book, but the author raised it - and I couldn't resist responding.

He goes further in his final chapter about the future. He quite correctly argues that the health care system needs to be 'completely re-engineered' and that the major constraints are the entrenched positions of all of those with a stake in the old system - and particularly "… the obscene Health Maintenance Organisations and the lawyers who put up the cost of medicine dramatically by constantly facilitating legal suits against doctors, who defensively respond by over-ordering tests and investigations to protect themselves, at the patients' cost." The arrival of the second generation of the Internet "… will leave these vultures high and dry in their well-feathered nests." It is unclear why this will happen, but the implication seems to be that patients will now be able to deal directly with doctors without interference from the parasites - lawyers, insurers, and the like. He also envisages that international competition through the Internet will save money. He notes that Australian doctors typically charge only half the rates of doctors in the US, and "… some patients will choose cheaper treatment by equally qualified overseas doctors".

I would have liked to see at least brief mention of the possibility that some doctors have contributed to the failings of the US health care system. There is a risk that some readers may accept the implication in this book that the Internet will, by itself, transform health care into a better system. Fortunately, that is not a risk for readers of the AHR.

The author states very clearly that he has no intention of helping readers to understand how the Internet works "… or even how to log on." He wisely points out there are many other books that do this already. He includes a glossary of Internet and electronic health terms. I wish it had been more comprehensive, so that I could have been sure of all the terms he uses in the book. I know my children know terms like portal, home page, and hot links but they are not so much in need of advice as people in my generation.

I have exaggerated a little, because 'home page' is in fact in the glossary. However, it might as well not have been, because the author's explanation is that a home page "… is your own Internet site written in HTML." HMTL is not in the glossary, but you might find it embedded in the explanation under "Hypertext markup language". I wandered around the glossary for quite a while before forming the view that what I was looking for was not worth knowing in the context of this book.

There is a useful appendix on websites that may be worthy of a visit. They include sites where one might learn the basics of using the Internet, search for publications (Medline and PsycInfo), general news pages and search engines, retailers of health care products, and a wide range of sites where health care problems can be researched by non-clinicians. As might be expected, he mentions several medical associations and their literature, but gives hardly a mention of nursing, social work, physiotherapy, and so on.

In summary, this is a book that will interest most health care professionals, and a good proportion of well-educated laypeople. Many of the references, tables, stories, and anecdotes are particularly useful. It is flawed in a few parts, but this is of little concern to the reader who wants to know more about medicine on the Internet - as opposed to the broader policy issues in health care.

It deals with an extremely important matter, and I think the author is right in arguing that Internet consultations could change much of medical practice for ever. I enjoyed his book, and expect it will stimulate many more people to begin to think about how to manage the risks as well as the opportunities.

# Reference

Ferguson T 1998, Digital doctoring: opportunities and challenges in electronic patient-physician communication, *J of the American Medical Association*, vol 280 no 15, pp 1361-62.