Information technology

Patients, clinical practice, and the internet

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Access to the internet has changed the relationships between professions and the lay public.

It used to be so much simpler. Doctors were the experts and told patients what to do. Patients listened and occasionally took notice. Doctors were criticised as behaving as if they were God, and medicine was something that was done to people. All too often the doctor-patient relationship, in transactional terms, was parent to child—and it wasn't healthy.

It was knowledge that caused the power differential. In the past, a profession could be defined by the body of knowledge that it held. If you were not a member of a profession, it was extraordinarily difficult to obtain this knowledge. But now, anyone who has access to the internet has access to almost all the knowledge in the world, a development that has fundamentally changed the relationships between professions and the lay public. Indeed, the arrival of information technology can be seen as having similarities to the translation of the Bible from Latin. When the Bible was only available in the Latin language, the clergy controlled all access to this knowledge. Translation freed up this access, changing forever the role and position of the clergy.¹

A similar seismic shift has affected medical congregations. Doctors no longer control the knowledge. While there are inevitably clinicians who find this change of role to be deeply uncomfortable, resisting this development is as futile as King Canute resisting the tide. And, like the tide, it can be used to everyone's advantage.

However, it is certainly not true that the universal availability of knowledge has made the practice of medicine any easier. Most doctors can tell of patients who arrive in busy clinics with page after page of printouts from the internet, asking for our detailed opinion. Learning how to deal with such requests and use information technology appropriately is rapidly becoming a necessary consultation skill.²

Clinicians who have been fearful that this easy availability of medical information might in some way render their professional role less relevant only have

to use the internet with the eyes of a patient to realise that this is far from the case. As an example, entering the phrase "irritable bowel syndrome" into the Google search engine results in the display of a mere 2 610 000 sources of information. Even narrowing this down to "Irritable bowel syndrome" and "Patient Information" still leaves 49 200 pages. Finding one's way through the overload of information requires considerable skill, not least in trying to understand who is trying to sell you what on which page. The very democracy of the internet gives the very best peer reviewed totally accurate information the same prominence as the malicious, the inaccurate, and the downright lies.

Faced with this overwhelming plethora of information, patients will need guides. They are likely to turn to their doctors, the most trusted professional group in society.³ All doctors are at least vaguely aware of the derivation of the word "doctor" from the Latin word "docere" meaning "to teach". An important part of any clinician's role has always been teaching and imparting information, but the internet changes this role in many subtle ways. Doctors will need to learn how to work with patients in finding appropriate information, in being able to share their reasons why they believe other information is less helpful, and to be able to point their patients in the right direction in the future.

This change is healthy, and will almost certainly be linked to better healthcare outcomes. For decades the management of hypertension, as a simple example, was perceived by many patients as being told that "Your blood pressure is too high. You will need to take these tablets for the rest of your life and have regular check ups". Every doctor knows patients who have taken tablets for years without ever understanding what the drug was for, and what their condition meant. This "parent-child" relationship was, almost literally, patronising, and frequently ineffective. A more equal "adult/adult"

relationship will instead entail sharing of information and concerns—perhaps including the doctor emailing the patient with useful web sites, and the patient emailing the doctor with home blood pressure recordings.

However, clinicians need up to date information too. Particularly in the sphere of long term medical conditions, the rate of production of new research and medical information is impossibly fast for any clinician, and particularly for a generalist, to be able to keep up to date. Simply relying on one's memory of lectures or old textbooks is no longer acceptable, or indeed necessary. Electronic sources of high quality information, web sites like <http://www.clinicalevidence.com> or Bandolier (<http://www.jr2.ox.ac.uk/bandolier/>) kept as bookmarks on a consulting room computer can be invaluable to both doctor and patient. Doctors no longer need to pretend that they know everything—it always was a pretence. Searching for, or checking, information with the patient present in no way diminishes authority. The relationship changes and trust can be enhanced. And the doctor can automatically update their personal learning plan.⁴

As medicine changes and we take on board the real message that the true experts in any condition are the patients who have the condition, so will the internet be the provider of first person experience and wisdom that even the greatest of doctors can never hope to offer. The remarkable dipex web site, which provides patient experiences of health and illness, is pointing the way to a whole sphere of healthcare provision that has barely existed in the past (<http://www.dipex.com>).

In a very few years time we will be mystified that we ever managed without the internet, and will live in constant fear of a power strike. Appointments for primary and secondary care will be made through the net (<http://www.chooseandbook.nhs.uk>), investigations will be booked and results received, information shared, decision support software will work unobtrusively in the background, and our educational needs will be stored and addressed as our computer notices our weaknesses. Our patients, who have access to the same guidelines used by their clinicians, will know when we are deviating from established practice and may ask us to explain. For generalists caring for patients with multiple comorbidities this could prove particularly interesting, as most guidelines are currently produced using research that excludes such patients. The art, as well as the science of medicine will still be hugely important.

Indeed, despite all the technology, the single most important activity in any doctor's work will remain as important as ever. The consultation—that private and intensely personal relationship between two people—is an activity that has spanned the centuries. For all the exciting potential of new technology, the one to one doctor patient relationship must remain the centre of the medical universe. Indeed, in an increasingly depersonalised and technological world, the intimacy of caring and understanding will become increasingly important.

The more complicated the world becomes; the more will the trusted

clinician still be needed. Doctors and other clinicians need to embrace their technological future with open minds. As the American social philosopher Eric Hoffer once said, "In a time of drastic change it is the learners who inhabit the future. The learned usually find themselves equipped to live in a world that no longer exists."⁵

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WEB TRAWL

This month's web trawl focuses on two web sites that provide information on evidence based medicine.

<http://www.clinicalevidence.com/> Clinical Evidence is UK based in that it is owned by BMJ Publishing, but quite correctly describes itself as an international source of best available evidence. Previously available by subscription, it is now freely available to all users. From the home page, the user has the options of selecting any of the 222 conditions covered from a drop down menu, selecting one of the individual sections (which then links to a list of the topics covered under that heading), or searching the entire web site using a keyword search. Each topic is laid out in a similar fashion, with a brief background information section, followed by details of the treatments available, evidence for their effectiveness, their benefits, and potential harms. For pharmacological treatments, links are provided to the appropriate section of the online *British National Formulary*. Throughout the text, links are available to each individual reference, and for many, the full text of that reference is available. In addition to browsing any of the topics available, the user can, via the home page, access details of how Clinical Evidence is compiled and details of the section advisors (most, but not all of whom are based either in the UK or the United States). They can even apply to become a contributor. The Clinical Evidence web site has recently undergone a makeover, and, in my opinion at least, the new version is better laid out, and easier to navigate than its predecessor. For the conditions covered, this web site should provide access to all the information a user is likely to require, making it a truly "one stop shop" for evidence based medicine.

<http://www.jr2.ox.ac.uk/bandolier> Bandolier is again a UK based, but essentially international, source of evidence based healthcare information. The web site provides an electronic version of the Bandolier journal, which is published monthly, and then posted on the web site after a six month delay. From the home page, the user may access a list of all the topics and conditions covered, along with a large number of essays, some of which discuss specific healthcare issues and others that give background information on subjects from statistics to the definition of clinical governance. The essays are available for download in pdf format. The list of topics and conditions covered is laid out alphabetically, and at first glance appears brief. This is deceptive however, as when the user clicks on an individual topic, a wealth of further links are revealed, each of which in the main is a detailed discussion of an individual paper. These discussions are attractively laid out and written in a very clear, easy to read style. For this reason, not only healthcare professionals but also patients will find this site of value. The findings of each paper are clearly explained, and although all the relevant statistics are provided, they do not "swamp" the text. A separate web page provides a glossary of terms commonly used in evidence based medicine and statistics, and again this will be useful to anyone who is seeking a better understanding of this complex and growing area of medicine. This is a web site to recommend both to colleagues and to your patients.

Robyn Webber
Web Editor