

Is the future of medical publishing on (the) line?

The information technology revolution is taking on many forms in the world of medical publishing. At its most basic, Medline and associated electronic literature search systems have irreversibly changed our approach to information retrieval. Unquestionably, online publishing has brought us enormous benefits. Most apparent is rapid access to a massive volume of material. Given access to an online journal, typically through an institution or library, the reader can download highly selected papers of specific interest. Add to this the capacity of many online publication houses (such as our own host, Cambridge Journals Online¹) to identify other associated material on a given topic, and to alert the reader of forthcoming related publications from a wide range of journals, and the benefits increase greatly.

More recently, a host of more advanced functions have become available, notably in connection with major journals such as JAMA, the NEJM, and the BMJ². The provision for submission and e-publication of immediate e-mail responses to articles has been hailed in many quarters, as has the fast track 'pre-printing' of non-peer reviewed material. In some journals, partnership arrangements between paper publication of newsworthy abstracts, and e-publishing of full papers, are generating great interest, while the online availability of videoclips and other illustrative multimedia-based material, including functional imaging, emphasizes some of the unique strengths of electronic publishing. So why bother with paper journals?

To my mind, the answer lies precisely in the claims being made of the new technology. For, unquestionably, online publishing has indeed brought rapid access to a massive volume of material, both of articles directly sought, and related work. But many of us would hardly know how to prioritize it all, were it not for the carefully assembled, familiar, authoritative medical journal. It is in the electronic arena that we must regard the material as 'yet unproven'. For, while our long and tried tradition of peer-reviewed paper-based publication has maintained and improved its standards, we cannot say this for e-publishing.

The eventual impact of the large volume of non-peer-reviewed reporting is uncertain. By now most of us accept as regular occurrences the arrival at our clinics of internet-educated patients, families, and advocates. But so many of these individuals are often misinformed, particularly regarding the relative importance of the various claims and counter-claims they have read on a variety of online sites. Some of the sites in question do have explicit disclaimers regarding their non-peer-reviewed status, but such standards are unfamiliar to most, and may be disregarded by those who adopt alternative stances to what they regard as traditional and over-clinical approaches. The traditional peer-reviewed journal remains our yardstick, especially now

that scrutiny of our individual and collective 'impact factor' performance in peer-reviewed publication is given such emphasis. What will be the impact on this system if we all cancel our individual journal subscriptions and switch to e-search-and-download reading?

The answers to many of these questions can be found if we consider more carefully how our traditional medical journals are organized. Crucially, major journals do not exist in isolation, but in association with eminent scientific organizations and specialist bodies. This journal for instance is affiliated to the American Academy of Cerebral Palsy and to the British Paediatric Neurology Association. Partnerships such as this not only serve the activities, policies, and functions of the organizations concerned, but perhaps more importantly provide a kind of validating frame of reference for the journal, ensuring that what is presented is more than a narrow set of biased views. In the absence of traditional paper-based publishing, with its established human networks, it is likely that electronic publishing is prone to be driven by independent messages, parties, and biases. Moreover, whereas the traditional paper journal has established procedures to deal with matters such as conflicts of interest, the same cannot yet be said for substantial proportions of the electronic publishing world. All of the cyberlinking provided through hotspots, hyperlinks, and other e-paraphernalia is no replacement for an informed body of professionals.

It only makes sense that existing paper journals are maintained while we explore and develop the new technology. Many of these new possibilities look enticing and exciting, compared with traditional media, but we should see salutary lessons in other recent historical events in the electronic world, where the number of new 'dot-com' companies in trouble seems to be accelerating rapidly. Also a recent press release advised that Bill Gates is no longer the world's richest man, a fact scarcely imaginable on previous performances. To the sceptical observer of the new e-world, both of these events are the first signs of cracks in the veneer.

Clearly, online publishing is not just the future: it is the present, and it is here to stay. But time will tell that the future of paper journals is not on the line.

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References

1. <http://www.journals.cup.org>
2. Delamothe T, Smith R (1999) The joy of being electronic *British Medical Journal* 319: 465–66