

Scientific publishing needs disruption

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Steve Jobs, visionary and co-founder of Apple Inc, and famed for his competitive streak, commented at the launch of the Kindle, Amazon's new electronic book reader, that 'it doesn't matter how good or bad the product is; the fact is that people don't read anymore'.¹

Scientific publishing is awaiting 'disruption' according to Harvard professor Clayton M Christensen, a major influence on Jobs. Christensen's book, *The Innovator's Dilemma*, suggests that the secret of success for companies like Apple Inc has been opportunistic 'disruptive innovation' of high value products, which, once developed, open a completely new market and lead to lower costs.²

By contrast, scientific publishing has, for as long as most readers can recall, been in the grip, not of disruptive innovation, but of gentle, incremental change, despite significant innovations such as digital object identifiers (DOI), referencing tools such as EndNote, online search engines such as PubMed and Google Scholar, and the online environment itself.

The pivotal debate facing the scientific publishing community remains how to respond to the inherent challenge of a medium that refuses to stand still and seems predisposed towards an open-source and open-access approach.

It is an attractive proposition that scientific discussion should be freely available, as journals have historically been. In at least one sense, levellers, freely disseminating ideas through a system of public and academic libraries, are not locked behind a 'pay wall'. Indeed the Finch Report, commissioned by the government, lends weight to this, concluding that research papers, especially those funding by the taxpayer, should be freely available to all.

'Open-access' publishers such as BioMed Central and the Public Library of Science (PLOS) has challenged the status quo, adopting an innovative business model where a publication charge is passed on to the author allowing free access for readers. Content on PLoS's wholly online flagship journal, *PLoS ONE*, is updated daily, and consequently the journal boasts that 'approximately 1 in 60 of all articles indexed by PubMed as being published in 2011 were published by *PLoS ONE*'.³ Detractors state

the journal lacks academic rigour as it publishes 'all papers that are judged to be technically sound'.⁴ This is strikingly similar to the initial scepticism that *TIME* magazine received from the newspaper industry as poor, or even 'rip-off', journalism. The news aggregator, a popular example of a disruptor, is now a leading global publication with an audience of 25 million.

Jobs was incorrect in suggesting that people had stopped reading; but we are undoubtedly changing our reading habits, including the way we access our scientific literature. Scientific publishing must avoid having a 'Canute moment' and embrace the Internet and the rising popularity of e-journals, e-readers and smart phone applications, and recognise the dogmatic push towards open-access learning.

It has been an honour to be asked to join the *Clinical Medicine* editorial board as a foundation year trainee member, and part of my role will be exploring how our journal meets some of these challenges.

It has been impressed upon me that the contribution *Clinical Medicine* can make in improving healthcare quality and showcasing research is a very considerable one. It is my hope that together as an academic community we can create an actual and virtual space where the best clinicians can interact, and where both the medium and the message work together in the interests of world-leading care for our patients.

References

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- 3 MacCallum CJ. Why ONE is more than 5. *PLoS Biol* 2011;9:e1001235.
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