

## Slow birth of new-wave medical journalism

Half a century has passed since Sir Theodore Fox reflected upon his recently completed 40-year tenure as editor of *The Lancet*. He titled his farewell lecture series “Crisis in communication: the functions and future of medical journals.”<sup>1</sup> Even though the number of journals had dramatically increased by the 1960s, submissions had proliferated to such an extent that Fox’s principal regret was the increasing fraction he was forced to refuse.

In the late 19th century, the surgeon general of the United States was able to catalogue the entire body of medical knowledge up to that time in a volume that would contain only 1 month of *Index Medicus*, the successor catalogue in use at the time of Fox’s retirement. Fox raised an alarm that has frequently been considered since: how can any scientist, let alone any practising physician, make sense of all the new knowledge continuously being produced? If the rate of publication continued, soon there would not be enough paper upon which to print it, not enough time to read it and no library system capable of bringing order to Babel. Fox estimated that 145 000 articles were indexed in 1964.<sup>1</sup> Last year, PubMed indexed 1 045 564 articles.

Fox saw the future in computerization. And now, 50 years later, we are only beginning to embrace that future. He distinguished between the “recorder” and “newspaper” functions of medical publications. Whereas the former provides an archive of facts for future reference, the latter may have greater impact because it shapes knowledge and opinion. Everyone today understands the limitless capacity of modern computerization to store, find and retrieve archived material, but we are only beginning to embrace its capacity to shape knowledge.

The *Canadian Journal of Surgery* (*CJS*) is the only conventionally published journal in surgery that immediately deposits its articles into PubMed Central, allowing open access. Since doing so, its total citation rate quadrupled from 145 in the year 2000 to 503 in 2011. Our self-citation rate remains less than 1%. Open access is clearly the future of medical publishing.

The greatest recent challenge to the journal has been the rising cost of production and delivery, which has threatened the survival of *CJS*. The printed copy was considered vital to maintain relevance to Canadians. Printed copy facilitates opinion-forming articles, particularly in a

journal such as *CJS*, one of the few remaining surgical journals not restricted by specialization. Fortunately, 2 developments in the digital world mitigate the loss of the routinely printed copy. The digital flip-book format faithfully reproduces the journal, and, for those who still prefer paper, “on-demand” printing allows for one-off printing and mailing.

Information is now shared in a great electronic cloud, where it is molded and shaped by a wide variety of users. Medical information is part of this cloud, no longer restricted to medical libraries or found only by dedicated search engines, such as PubMed. It is not enough to provide authors with the wide exposure of open access publication, but the journal will also seek to promote their work so that it is seen and heard in the fray. *CJS* will embrace the opportunities afforded by modern social media to join this process. Books are indexed differently than journals. *CJS* has in its 55-year history accumulated a wealth of material that is available for collection and reissue as books. *CJS* has published more than 40 articles about the history of surgery in Canada.<sup>2</sup> Its scientific reports are primary documentation of the development of surgery in Canada. Publication in the last issue regarding the early and late outcomes after cardiac transplantation was the 120th article documenting the story of transplantation in Canada.<sup>3</sup> Electronic publication permits the reuse of such material and its distribution, either freely on the Internet or by on-demand printing at low cost. The challenge posed by rising printing costs has opened the door to a new world of medical publishing that will keep the *CJS* as Canada’s surgical journal of record.

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### References

1. Fox T. *Crisis in communication: the functions and future of medical journals*. London: Athlone Press; 1965.
2. McAlister VC. Origins of the Canadian school of surgery. *Can J Surg* 2007;50:357-63.
3. Saito A, Novick RJ, Kiaii B, et al. Early and late outcomes after cardiac retransplantation. *Can J Surg* 2013;56:21-6.