



Commentary

## The World Wide Web (WWW): For better or for worse

Since the launch of Neuromuscular Disorders in 1990, there have been a series of cataclysmic events, which have turned the traditional approach to scientific publishing completely on its head. The meticulous search of the literature to acknowledge earlier publications is now a thing of the past and references are often restricted to recently published on-line papers.

The first major event was the creation of the worldwide web (WWW) by a Brit, Tim Berners-Lee, in 1991 and made freely available and readily accessible by everyone, without any charge. It rapidly expanded to providing access to infinite information, as well as misinformation.

This was followed in 1994 by the introduction of the Journal Impact Factor by Eugene Garfield, the founder of the Institute for Scientific Information (ISI). This rated individual journals on the citations their articles achieved within a two-year period. The high-flying, large-circulation, journals acquired high impact factors but these were often inflated by a number of high-flying papers, whereas other papers in the journal might have a relatively modest impact.

The next major development was the introduction in 2000 of PubMed Central, by the USA National Institute of Health, National Library of Medicine. Since its inception it has acquired more than 5 million articles, which are freely available online.

The inordinate rush to rapid online publication was further enhanced by high-profile, grant-supported, rapid-publication, online journals, such as PLOS One (Public Library of Science, US Academy of Science), which was a broadly based science journal, charging for online contributions and employing a large cohort of science graduates to handle and accelerate the peer review process.

This has now moved one step further, and probably one step too far, where manuscripts can be submitted online to a website (under the euphemism of pre-publication), without peer review. This would probably not matter if it were a closed website only accessible to scientists, but it is an open access website. I find this development quite worrying and potentially hazardous in the active field of new developments in therapy of neuromuscular diseases, where we already have to contend with the continuous hype of preliminary reports, based on provisional and incomplete therapeutic data, frequently in animal “models”, which has plagued the scientific literature for the past 25 years.

I have commented on one such pre-publication paper in relation to SMA in the current issue of the Journal (page 412).

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