



THE BMJ WEBSITE

Doctors online: “Like flies to honey”

The BMJ website is 20 years old this week. **David Payne** talks to Tony Delamothe, the launch editor, and fellow digital pioneers Richard Smith and John Sack about how the internet transformed doctors’ reading habits

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In 1995 most internet usage was in the United States. Physicians and academic researchers in North America waited two weeks for the latest issue of *The BMJ* to arrive by post.

Richard Smith, editor of *The BMJ* at the time of the website’s launch, describes himself as a “natural early adopter of not only things that do turn out to be significant but also things that turn out to be crazy.”

He adds: “It seemed to me the internet was going to have tremendous reach, that it offered possibilities of reaching out to a completely new audience. In those very early days the main users of the internet were US academics, and historically we had always tried to reach out to the US.”

Smith urged his BMJ colleagues to discover all they could about the internet. At the time Ronald Laporte, now an emeritus professor at the University of Pittsburgh, had just published an editorial in *The BMJ*, “Global health and the information superhighway,” outlining the internet’s potential to connect public health practitioners worldwide through data sharing, email, and online journals.¹

Tony Delamothe, deputy editor, says: “When it was published he said, ‘I’m really grateful you published that editorial, but it’s clear you understand nothing about this new world. I’m organising a study day in Washington. Why don’t you come over and hear about what’s happening?’”

“Nobody really had a clue at the time, so I flew to Washington and spent time with people from NASA and the World Health Organization and the people making the website for the White House. On the plane back I filled a pad with all the wonderful things we could do.

“It was like the industrial revolution, being in at the beginning of something profound. You felt something big was happening, something groundbreaking and wonderful.

“We recognised the prime users of the internet were American academics. But it was the world wide web, and the whole world was out there.”

Evolution

Between 1995 and March 1998 the online journal was a “brochureware site”² of selected highlights from the latest weekly print journal. But reader feedback requesting full text access to all articles necessitated the move to HighWire Press’s scholarly publishing platform, based at Stanford University, California.³

HighWire Press had launched in the same week as *The BMJ* website,⁴ and the journal was its first international general medical title. John Sack, HighWire’s founding director, explains: “We were set up to provide a community approach to the development of the technology so that we would be tightly linked with the people using it—the researchers, the clinicians, the editors.

“We took a completely different approach in part. We started with a database, a text based search engine, hyperlinks that went everywhere. At the time many publishers, the large commercial publishers, were only doing hyperlinks within their own text.

“They were building these walled gardens, afraid to let people link somewhere else. Soon after that we came to Google’s attention, which was also started at Stanford. We started participating with very large search engines. We connected with PubMed.”

As well as providing full text articles, HighWire helped to solve the administrative problem of choosing letters for publication.⁵ Smith explains: “*The BMJ* gets a lot of letters. Every morning I would be given a pile of yellow files of all the letters we’d received.

“We took ages to publish those letters [in print]. There were many of them we couldn’t publish. And I always wanted to publish anything that was very critical. It seemed to me that’s the nature of science and journals and arguments.

“When we launched rapid responses [in 1998] we were able to post them every single day, including Saturdays and Sundays. It meant readers could engage with the journal in a way that was much more real than engaging with it simply through paper.”

HighWire also enabled the journal to cluster content around topic collections, as well as the print issue table of contents. Sack adds: “The concept of collections organised by something other than date enables someone to register, say, for updates about malaria, so they get an email every time *The BMJ* publishes something new in that area.”

When *The BMJ* website launched, the internet had an estimated 30 million users. Ten years later there were a billion. By 2010 that figure had doubled. In 2014, there were three billion. Today around 40% of the world’s population has web access.

Sack says: “The traffic numbers were pretty extraordinary. And once we connected Google in, I think [because of] the type of general medical content that *The BMJ* has, it was just like flies to honey.”

Free access posed only a low risk in the early days, explains Delamothe. “We weren’t affecting any of our revenue streams in the early days by giving everything away.”

In 2004 the journal did introduce a business model that combines paywall content alongside open access articles.⁶

Delamothe says: “I sort of regret the introduction of access controls. We could have just hung on in there. Facebook doesn’t charge and various other massive sites online don’t charge and they get much more traffic. We might have been able to think about a business model down the line.”

Smith adds: “There was a time when it felt to me as if *The BMJ* had almost disproportionate influence because you could just go straight into the site, no password, no payment, nothing. We could be heard more loudly.

“I left just before access controls came in, but I am pleased that it is possible to keep the research freely available because the value of research is in the research. It’s not in the publication of it.”

Where next?

What will be the next big development in scholarly online publication? Sack says: “I think we’re going to see a lot of change in how the consumer part of the web influences what the rest of us do.

“The scholarly web, the medical web, those aren’t separate webs. Back in the 1990s, in the 1995 era, almost everything on the web was the academic web. But now we’re so influenced by the commercialisation of things that I think we’re going to see more and more rapid types of communication.”

Smith adds: “I’m struck by how much things haven’t changed. We’re still a long way off fully exploiting the web in the distribution of science. It astonishes me that the scientific paper is still essentially the same as it was 200 years ago. We’re beginning to have the possibility of adding the full data set. That surely should be happening faster than it is.

“In the high energy physics world, the minute authors finish a paper they put it up on a server. All the other physicists can see it, and a lot of them comment, and publication is the end of that process, not the beginning of it.

“We played around with the idea of doing something in medicine. We launched a site where people could do that. But virtually nobody did. People were just too scared.

“I’ve come round to the realisation that academics in many ways are the most conservative people in the world, which is sort of ironic. And maybe science academics are especially conservative. They cling to journals and impact factors and that way of thinking.”

Competing interests: I have read and understood BMJ policy on declaration of interests and have no relevant interests to declare

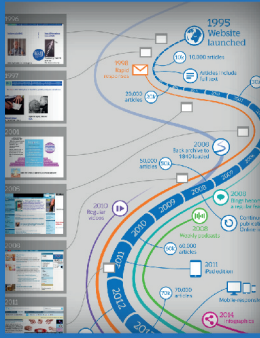
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Figure



The infographic shows a winding path through time, starting at 1995 and ending at 2014. Key milestones include: 1995 (Website launched), 1998 (First issue online), 2000 (10,000 readers), 2001 (First issue online), 2002 (Back to online), 2003 (100,000 readers), 2004 (First issue online), 2005 (First issue online), 2006 (First issue online), 2007 (First issue online), 2008 (First issue online), 2009 (First issue online), 2010 (First issue online), 2011 (First issue online), 2012 (First issue online), 2013 (First issue online), and 2014 (First issue online). The path is color-coded and includes icons for various milestones.

Interactive available
See link below

Travel back in time to see how our website has changed in this information graphic by **Will Stahl-Timmins**.

View the infographic timeline at www.bmj.com/content/350/bmj.h2767/infographic