

REPORT

The launch and reception of *Darwin online*

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At 10.30 p.m. on 18 October 2006, at the push of a button at the University of Cambridge, the largest publication of Darwin's writings in history was made publicly available at <http://darwin-online.org.uk/>. Its announcement was followed by an extraordinary media storm lasting well over 48 hours and reaching more than 400 million people. We believe that this is without parallel for an academic online publication on the work of a single individual. This is an unmistakable indicator of the enduring interest in the great English naturalist, Charles Darwin (1809–82).

Although four years in the making, full-time work on the site began only the previous October thanks to a grant by the Arts and Humanities Research Council to James Secord and Janet Browne.¹

Darwin online seeks to make freely available all of Darwin's publications, including all editions of his works and every fragment published during his lifetime. His unpublished manuscripts will also be included. Also within the scope of *Darwin online* are previously published manuscript transcriptions; all those for which reproduction permission has so far been obtained are included. Publication of Darwin's letters has long been underway in *The correspondence of Charles Darwin* (Cambridge University Press, 1985; 15 volumes).

The ambitious undertaking of *Darwin online* is made manageable by way of two massive catalogues that allow such a large body of material to be clearly organized. The first, based on the work of R. B. Freeman,² is the largest Darwin bibliography ever published. The second, a collation of existing institutional catalogues, is the largest listing of Darwin's manuscripts ever assembled. There is much more beside, but this can be seen on the website and need not be repeated here. (Scrolling down the table of contents page at <http://darwin-online.org.uk/contents.html> will make this clear.)

On launch day, which was officially 19 October 2006, 50 000 searchable text pages and 40 000 images were made available. A great number of Darwin items were made available online for the first time, including his HMS *Beagle* field notebooks (now the property of English Heritage Down House Collection), all editions of the *Origin of species* and images of his early evolution notebooks.

To announce this milestone in history of science publishing, J. van Wyhe sent a press release to the Cambridge University Office of Communications and the BBC in early October. Henry Nicholls offered to write a feature in *Nature*. It was the publication of *Nature* on a Thursday that determined the launch date two months away. Tom Kirk, of the Cambridge University Office of Communications, was assigned to the case. He liaised further

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with the BBC and disseminated the press release to numerous press agencies and journalists around the world, with an embargo not to publish until 19 October.

A BBC film crew came to Cambridge on 18 October to film for the BBC1 programme Breakfast TV (to be aired the following morning). In addition the BBC put the story on the front page of their news website. Numerous journalists began contacting Kirk to find out more. On 19 October van Wyhe and Kirk met at Radio Cambridgeshire for a long line-up of radio interviews. First was the Radio 4 Today Programme followed by the World Service, Radio Wales, Radio Shropshire and a lengthy discussion on Radio Cambridgeshire. Radio Scotland was turned away for lack of time. Later in the day van Wyhe was interviewed by phone for Radio Severn. The story was also carried throughout the day on Radio 4 News Briefings. Darwin's great-great-grandson, Randal Keynes, who is an active member of *Darwin online*, gave numerous interviews.

On television there was the prerecorded BBC1 Breakfast News. Van Wyhe and Keynes both declined an interview live in the studio Thursday morning because it was too early, and turned down BBC World because of insufficient time. However, a similar broadcast was edited for BBC News 24 and BBC World. Two other film crews visited the *Darwin online* office in Cambridge on 19 and 20 October: respectively, BBC Look East and Anglia TV. A phone interview with van Wyhe was taken for the Canadian Broadcasting Corporation.

During the course of the day it was noticed that 200 websites and newspapers were running the story. It was to be found in *The Times*, *Guardian*, *Financial Times*, *The Independent*, *Daily Telegraph*, *Washington Post* and hundreds more. Eventually hundreds of websites and newspapers were carrying the story—literally all over the world (as far afield as Mauritius, India and China) and in very many languages. Hundreds more blog sites carried the news. Van Wyhe was later interviewed by *Singapore Today* and *Die Sueddeutsche Zeitung* (making the front page, and the story became the fifth most visited on their website).

The site became busy very soon after its launch—unexpectedly at 1.48 a.m. on the morning of 19 October, the article appeared on the front page of the BBC News global website, from which a steady and increasing stream of referrers was seen through the small hours. The item was quickly echoed throughout the internet news community, with a notable early cluster of referrals from Brazil courtesy of the EFE agency's London offices, closely followed by several news agencies in Australia for whom the launch event had fallen within business hours. The story was disseminated by news agencies such as the Press Association, Reuters and the Associated Press. The story became the most e-mailed on the BBC website and the second most-watched video. By 6 o'clock that morning the load on the site was doubling every hour.

By 11.00 a.m. the load on the site had well exceeded its design parameters (having been prepared for a maximum load equivalent of 1 million hits per day, it was then receiving well over five times that) and it collapsed entirely. As a result of rapid reconfiguration performed by the expert engineers at the Centre for Applied Research in Educational Technologies (CARET) at the University of Cambridge, which hosts the *Darwin online* server, the site was brought back into serviceability in less than half an hour, although works continued late into the evening to allocate it a dedicated set of server instances. By 9 o'clock that evening the site was easily handling the load that had earlier overwhelmed it, and since then has been serving responsively and rapidly without interruption.

The site's home page received 80 000 hits on the first day and the server received over 5 million requests altogether for files. At the peak there were 40 clicks on the site every second. *Darwin online* served 226 gigabytes the first day, and even more the following day.

At the time of writing (27 October) there have been 266 834 visits to the home page and about 14 million accesses across the entire site, resulting in a transfer of over 1 terabyte of data. This shows that users are using the site and not just visiting the home page and leaving.

The number of news sites carrying the *Darwin online* story continues to grow: simply in the English language, Google News reports 530 sites around the world as of the time of writing, but the log files for the site show a truly international appeal, with a particularly large contingent from The Netherlands, only slightly behind the UK and USA in the access league tables. Also in the top 10 groups accessing the site are users from Canada, Australia, Belgium, Poland and Brazil.

Before the launch, Google showed 179 pages carrying the exact words 'the complete work of Charles Darwin online'. A search on 25 October, less than one week later, showed 20 500.

The response from readers has been overwhelming. The most common response is excitement and gratitude that Darwin's work is available to the world in one place free of charge. For us it has been very exciting witnessing and experiencing this extraordinary reception. All of those involved with *Darwin online* are grateful for the letters of thanks and support that have been received.

NOTES

- 1 See J. van Wyhe, 'The complete work of Charles Darwin online', *Notes Rec. R. Soc.* **60**, 87–89 (2006).
- 2 R. B. Freeman, *The Works of Charles Darwin: an annotated bibliographical handlist*, 2nd edn (Dawson, Folkestone, 1977). The copyrighted work of Freeman is reproduced with the permission of The Charles Darwin Trust and Dr Mary Whitear.