In March 2006, Encyclopaedia Britannica published advertisements in UK and US newspapers attacking a *Nature* news article from 15 December 2005. This document provides a brief history of Britannica's previous contact with *Nature*, responds to the specific complaints raised in the advert, and explains why we stand by the story.

## **History**

When our survey was complete in mid-November, we contacted Britannica to discuss its findings. We supplied the company with the numerical results and samples of errors that were representative of what our reviewers found. Britannica said it was unable to comment on the comparison itself, but did respond briefly about the shortcomings of Wikipedia. That response was included in the published story.

After the article was published, Britannica contacted us to ask for more details of the survey. We provided them with additional details about our methodology, and a list of every error that we had included in our analysis, and posted this information on our website. Britannica then asked for the articles from both encyclopaedias that we had sent to our reviewers – we also promptly provided Britannica with this extra information.

The company also asked for the full copies of the reviewers' reports. We declined to send these. The reports were written for us, and reviewers did not expect them to be forwarded to the organization that they were commenting on. In some cases, the review also revealed the identity of the reviewer. We asked reviewers whether they wished to have their name attached to their reviews, but almost all declined. Given this, we did not feel that we could send the full reports to Britannica without breaching confidentiality. Any attempt to preserve confidentiality by anonymizing the reviews seemed likely to be quite time consuming, and we did not see the need to provide the full reviews given that we had already provided all the salient details.

At the end of January, Britannica wrote to us with general complaints about our story. We replied asking for more specific information about their objections in order to deal with them. We did not receive a reply or any further details before the company published a statement on its website on 23 March. The first newspaper advert appeared four days later.

## **Britannica's complaints**

• You reviewed text that was not even from the Encyclopaedia Britannica

Britannica claims that in one case we sent a reviewer material that did not come from any Britannica publication. When the company made this point to us in private we asked for details, but it provided none. Now Britannica has identified the review in question as being on ethanol. We have checked the original e-mail that we sent to the reviewer who looked at the Britannica article on ethanol and it is clear to us that all the reviewer's comments refer to specific paragraphs from Britannica.

Another part of Britannica's criticism concerns the fact that we provided material from other Britannica publications, such as the Britannica Book of the Year. This

was deliberate: the aim of our story, as we made clear, was to compare the online material available from Britannica and Wikipedia. When users search Britannica online, they get results from several Britannica publications. They have no reason to think that any one is less reliable than the others. In the case of the year book, Britannica itself asks readers to reference the articles as coming from "Encyclopaedia Britannica Online" – exactly the source we set out to compare.

• You accused Britannica of "omissions" on the basis of reviews of arbitrarily chosen excerpts of Britannica articles, not the articles themselves

Britannica's online statement says that we sometimes sent reviewers only opening summaries of an entry, and ignored the rest of the article. This was not an oversight, but a deliberate response to the structure of the information available. Both encyclopaedias often have a single entry that serves as a summary of a subject and which includes numerous links out to entries on specific aspects of that subject. In these cases, we felt it made sense to compare the summaries, which are themselves several hundreds words long. We were careful in these cases not to cite as omissions details that could not have been expected in a summary.

• You rearranged and re-edited Britannica articles

Britannica is complaining that we combined material from more than one Britannica article and sent it to reviewers. This was deliberate and was clearly acknowledged in material published alongside our original story. In a small number of cases, Britannica's search engine returned two links to substantive amounts of material on the subject we wanted to review. In these cases, we sent reviewers the relevant information from both links. We feel that better represented the sum of the material that Britannica offers on the topic we were comparing, and reduced the chances that the encyclopaedia could be unfairly accused of omitting critical details.

This could, of course, make the combined article sound disjointed. But we asked reviewers to look only for errors, not issues of style. When reviewers commented on style problems, we ignored those comments. More importantly, we feel that if the review identified an error, it is irrelevant whether that error came from a single article or the combination of two entries.

We do, however, accept that for one example highlighted by Britannica – the article on the aldol reaction – we combined two sections in a way that the reviewer may have found confusing. But we also note that two of the four inaccuracies that the reviewer identified were errors of fact and not related to this process.

• You failed to distinguish minor inaccuracies from major errors

This is incorrect. In our article we said that only 8 serious errors were identified out of a total of 285, four from both sources.

Under the same heading, Britannica also complains that reviewer comments about the stylistic shortcomings of Wikipedia articles were "buried" in our story. These comments, along with the views of Britannica's director of corporate communications Tom Panelas, are discussed in two lengthy paragraphs at the beginning of the second page of our piece.

• Your headline contradicted the body of your article

The standfirst to the story read "Jimmy Wales' Wikipedia comes close to Britannica in terms of the accuracy of its science entries, a *Nature* investigation finds." Given that our reviewers identified an average of four errors in each Wikipedia article, and three in each Britannica article, we feel that the phrase "comes close" is a reasonable description of our results. As all the details were in the story, it was of course open to our readers to disagree.

## **Further points**

In Britannica's statement of 23 March, the company also addresses specific errors identified by our reviewers. Britannica has examined these points, and claims that some of them are not errors at all. It is worth noting, though, that of the 123 purported errors in question, the company takes issue with less than half, and that Britannica has subsequently corrected many of the errors that our reviewers identified.

We also do not agree with all of Britannica's complaints. Take, for example, the article on Bjørn Lomborg, a high-profile critic of the environmental movement. Our reviewer noted that Britannica incorrectly describes Lomborg as having been a "committed" Greenpeace activist in his youth; Britannica's statement insists that this is an accurate description. But *Nature* discussed this issue directly with Lomborg when he was interviewed for an article published in 2003. Lomborg stated that his involvement with Greenpeace had been minimal, and that he was certainly never an activist of any kind.

Other objections made by Britannica seem odd. One reviewer said that Britannica was incorrect to describe Dmitry Mendeleev as the 17<sup>th</sup> child in his family. The reviewer states that he was the 13<sup>th</sup> child. The company complains that Mendeleev may have been either the 13<sup>th</sup> or the 14<sup>th</sup> child. Although this complaint is relevant to the specific entry, it makes no difference to the results of our study, as the original Britannica article was clearly in error.

But there is a more important point here than arguing over individual errors. Our reviewers probably did make some mistakes; we have been open about our methodology and never claimed otherwise. But the entries they reviewed were blinded: they did not know which entry came from Wikipedia and which from Britannica. So their honest errors will have affected Wikipedia's error count just as much as Britannica's. The aim of our study was to compare the two reference sources in a fair test. Unless there was deliberate bias on behalf of our 42 reviewers, and we find it hard to believe that was the case, individual mistakes will have averaged out, and the overall results will stand.