Letters

Is TeX obsolete?

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The conversion, in 2010–11, of the Summa paper mill in Finland to a Google data center is a clear sign of the growing importance of electronic media and in particular web pages in human communication. In this note we ask and provide a preliminary answer to the questions: Globally, how much server CPU time is spent running TeX or one of its descendants? And for what purpose?

For Google's data centers the answer might be zero. I don't know of any Google web application that uses TeX or descendant for back-end typesetting. The closest I know of is Google charts, which provides typesetting of TeX notation mathematics. But there is strong evidence that they are not using TeX's algorithms for this.

The major site that has back-end TeX typesetting is, of course, `arXiv.org`. There are also some publisher sites that use a similar service for author submissions.

WordPress and PediaPress are two other major sites using TeX or similar. WordPress allows bloggers to put LaTeX notation mathematics into their posts and comments. PediaPress provides a typesetting service for Wikipedia pages, which uses LaTeX as the backend.

The only other significant TeX or typesetting as a web service site I know of is MathTran (developed by myself with JISC and Open University funding). This provides, as does WordPress, translation of formulae for images, but this time intended for use on third-party web sites.

The more traditional reader might say: I agree that TeX is not widely available as a web service, but what does this have to do with it being obsolete? My view is that at present TeX and its descendants are well-established only in a few paper and PDF oriented niche areas, of which mathematics and physics research is by far the most important.

If TeX does not establish itself as a ubiquitous notation and typesetting system for mathematics on web pages, and if it does not consolidate and extend its use for server-side document typesetting, then these failings may cause the system as a whole to become obsolete. This would not be due to any inherent failings, but to a failure to provide an interface that meets the needs of electronic media, particularly the web.

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