How a little bit of technology can fix the editing and production processes for the social sciences.

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Academic text production faces many challenges. Some of them are of a technical nature. **Johannes Wilm**, initiator behind *Fidus Writer*, argues that by adapting the text editing environment for scientific articles in the social sciences, the amount of manual labour going into journal and book production can be cut dramatically while making the product accessible to a wider audience, and enhancing the quality of research.

Academic article and book authoring is fundamentally broken in many ways. One of the less obvious aspects that could be done much more efficiently is the technological processes. Most articles are written using Microsoft Word. It seems easy to use for the academic writing of the article, so few bother about thinking whether they should change. What remains hidden is the amount of work that has to go into making a file produced this way ready for final publication in a journal or by a book publisher.

Co-operation

Few will argue against the fact that most production processes are more efficient when conducted in cooperation, yet remuneration for work generally happens on a personal level. In the world of academic text production within some fields, this seems to take the form of one author taking credit for a particular piece of writing, while 'hiding' away a large number of people whose work was necessary to get from the stage of idea to finished article or book. In other fields it's more common to publish as a team, possibly with one principal investigator. In very few cases is it not necessary to collaborate with others at some stage of the text production process, even if only a single author is mentioned in the final version.

Microsoft Word, LibreOffice or OpenOffice are not good at facilitating collaboration. If one author sends a certain version to a second or third author and they then send their changes back to the main author for several rounds, with certainty it will turn into chaos with no-one quite knowing who has the most recent version. There is Google Docs to write collaboratively online, but this involves losing a lot of the most essential tools for academics, such as the "track changes" feature.

Typesetting

After the writing is done and the manuscript has been sent back and forth amongst peer reviewers a few times, the hardest work of the production chain starts: typesetting. You probably thought that typesetting was a relic from the newspaper business of centuries past and that surely nowadays modern machines can automatically turn Word files into a good looking journal article.

The truth is that today's journal-producing machines are not all that automatic. They are more like the Automaton Chess Player — an 18th Century fake chess computer with a hidden human chess player inside. The hidden human in this case are large teams of typesetters in low wage countries such as China, India or Bangladesh. They convert the Word file word-by-word to a format that can be delivered as print or as an ebook.

This work is necessary, because a Word file (or LibreOffice or Google Docs file) is messy. Every author is free to use their own styling for everything. There is the option to mark certain parts according to their semantic function (headline, citation, paragraph text, etc.), but the user is not forced to use this. When working with more than one author, one can be sure that at least some of the authors will not mark all their headlines using the "styles" dropdown, but will instead mark it using bold and a large font size. A human is then needed to guess that this is meant to be a headline. The Automaton beats the computer.

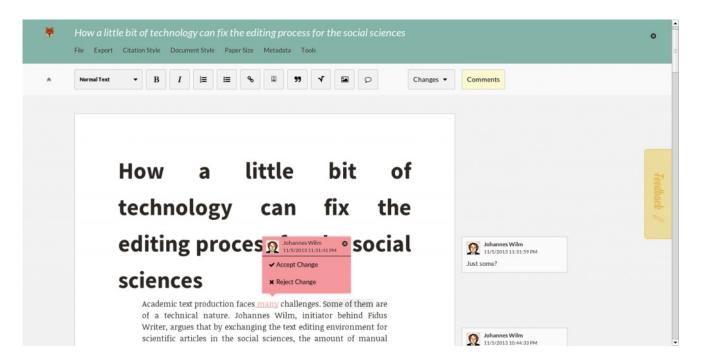
The missing component

The Finch report may be exaggerating the costs associated with publishing an article in Gold Open Access, but even a few hundred pounds per article is a lot of money. This is not necessary.

What is needed is quite simple: better computer programs.

It was while I was the typesetter of the Norwegian anthropology student's journal Betwixt & Between and later while sending drafts of my PhD thesis back and forth to the academic staff at Goldsmiths College that I developed the idea to create a new web based editor that would be just as easy to use as Google Docs, but that would include the features one needs for academic writing (bibliography management, professional formula support, track changes for collaboration, etc.), and hide the parts that will make typesetting difficult later on.

While waiting for my PhD to come through the system, me and three friends spent a year creating an editor according to these principles and released a first version as open source under the title Fidus Writer.

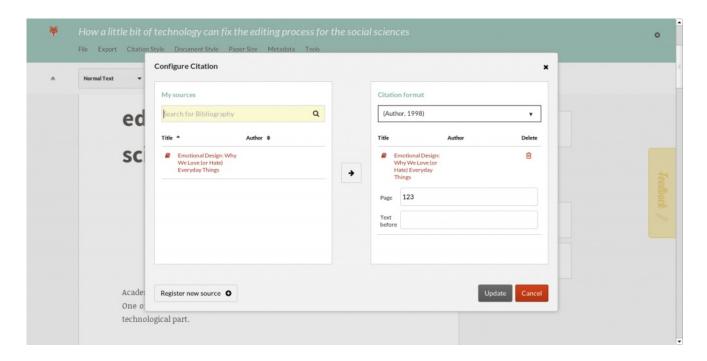


A lot of scientists in the hard sciences can be convinced to write their articles in a mix of computer code and writing in a language known as LaTeX, which easily can be converted to a good looking PDF. It is my experience that academics in the humanities and social sciences are unable to learn anything that is more difficult to use than Word, especially if it delivers less immediate visual feedback.

That is how we designed Fidus Writer — with an interface that should be familiar to most users of Microsoft Word.

The solution?

Fidus Writer is usable as it is. If a journal or university starts employing it as part of their production line, they are however quite likely to want things changed in some way. Because Fidus writer is open source, anyone (with programming skills) can change it to suit their needs. Ideas about how authoring tools should work differ wildly from field to field and only time will tell if it is possible in practice to make everybody use a single tool, or whether in the end the solution is to make specialized versions for each mayor fields.



We see Fidus Writer as a first argument within a wider debate on how academic publishing and thereby scholarly knowledge transmission should take place. However, contrasting and opposing views are needed to create a proper debate which can lead to substantive change.

Note: This article gives the views of the author, and not the position of the Impact of Social Science blog, nor of the London School of Economics. Please review our Comments Policy if you have any concerns on posting a comment below.

About the Author

Johannes Wilm graduated with a PhD in anthropology from Goldsmiths College, University of London in July 2013. His research has is in the area of Latin American social movements. His most recent book is "Nicaragua, Back from the Dead? An anthropological View of the Sandinista Movement in the early 21st Century" (2011). Wilm is also a self-taught programmer.

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