

Nature should host our Electronic Lab Notebooks

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Published June 25, 2007

Citation

Willighagen, E. (2007). Nature should host our Electronic Lab Notebooks. In *chem-bla-ics*. chem-bla-ics. <https://doi.org/10.59350/mbw05-t5888>

Keywords

Nature, Eln, Openscience

Abstract

Pedro suggested in Nature Networks What's Next forum that Nature should add a new service for scientists: hosting electronic lab notebooks. And I think this will be a killer application. I am rather excited about the idea, and feel ashamed not putting one-and-one together myself. We have our chemoinformatics tools and RDF is just around the corner, that combined with semantic wikis, and we have science of the 21st century.

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Pedro suggested in [Nature Networks What's Next](#) forum that Nature should add a new service for scientists: hosting electronic lab notebooks. And I think this will be a killer application. I am rather excited about the idea, and feel ashamed not putting one-and-one together myself. We have our [chemoinformatics tools](#) and [RDF](#) is just around the corner, that combined with [semantic wikis](#), and we have science of the 21st century. This is [my reply](#) posted on Nature Network:

Pedro, that might be an interesting idea: Nature hosting ELN. with much content, I have been maintaining a wiki in my previous postdoc, as replacement for the old paper notebook. Allows me to make links etc. I plan to do this in my new postdoc too, maybe even with a RDF-enabled wiki, to have agents automatically verify what I enter for inconsistencies. These things are already possible; just a matter of doing it.

If Nature would host such a service (RDF-enabled, and integrated with their other pages), they have a true killer for me: I write my ELN items, and for each page I decide if I want to make it public; since it is a wiki, I can keep it private until happy about the results, or, simply, until the experiment has finished. Then, by clicking a button it would become CC+attribution and automatically end up in Nature Preceedings. The full integration of Scintilla/Postgenomic/Connotea comes in when making links to background material.

The RDF is important for validating what I write, and I can imagine that Nature has an extensive set of default agents (of course, in addition to spell checking etc :). These agents check if the chemical reaction equations makes sense (conservation of mass, atom count, etc), that NMR/MS spectra and other experimental properties are consistent with that equation, and whatever else we can come up with. The tools for this validation are available, and basically only the glue is missing.