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Proposal for wiki based free-open journals.

Abstract

Two years spent studying LCA convinced me that the process of production and distribution of scientific content is a root cause for our current issues. During this same period all the potential corrections were also found in literature.
This communication is a letter to my communities. It is a proposition for a new generation of scientific journals. I here state operating principles, constitutive of these journals. Here I lay my proposal for wiki based free-open journals.

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Scientific communities,
LCA's more particularly.
Those who had a nervous breakdown,
not having access to some reference.
All citizens, enjoying paying for our work,
and scarcely being granted access to it.

Dear all,

Following the contradiction between content and support of my work, I wish to expose bellow the proposition of a wiki based free-open journal. I send you this proposition with regards to your position or publication that I consider linked to this matter of advanced science practices, openness, transparency and collaboration[1–19].

You are all cordially invited to discuss and broadcast this proposal.

I am eager to see you all react to this, enrich it with your experience and produce the seeds of a new generation of scientific journals.

Sincerely yours.
Rudy PATARD

Context:

Indeed, my work on Life Cycle Assessment take its ground on repeated conclusions drawn from literature. The conclusion is that major difficulties arise from closure of scientific information (theme of availability and quality of data). These needs for opening science and reducing bottle necks are emphasized in LCA. As we try to model complex systems, we are calling for multiple disciplines. And each wall dividing science, each locked door to enter these walls, is a set back in our research.
Yet, to the dawn of writing my first article, I wondered “In which journal do I want this work to be submitted?”. After researching OpenDOAR, I find no journal that met all of my criteria: fully open in writing, reading, reviewing, possibly enriched with semantic and enabling active collaboration.
We know of all the constitutive elements for such a creation. And we are now experienced with more than ten years of existence and results of these tools[20,21].
I would consider myself a poor defender of the openness thesis I stand for in my work, if I didn't pushed further the initiative of such journals.

Operating principles:

Article creation, submission:

At the creation of the article, the author (1st) specifies with a semantic template:
This is {{kind of document | an article / book / thesis}} … whose goal is {{ objective | journal... / the defense of... / conference...}} and authors are: {{author (s) | creator and any author the first one added, typed as is the wiki user account}}.
The model can also incorporate any further information that may be of use in terms of bibliographic management and research (keywords, domains ...). Bibliographic references should be indexed in semantic models also. Ontologies already exist on this matter. This is to make the traceability of citations and enable continuity of current research evaluations (whether they are considered or not, legitimate, relevant, fair ...). This treatment of bibliographic references will also be used to control plagiarism*.

Reviewing process:

Current regular wikis contain an article page and a discussion page. I simply propose to use the discussion page for the review. The discussion page is not under authorship restriction. Any user of the wiki can contribute to the progress of the related article. Comments can be submitted as well as reviews. Thus the number of reviewers is not limited by the journal's structure or review process. All comments and required corrections can be viewed so all the work is done in full transparency. The validation of the reviewing process is developed in the journal integration part.

Police Bot “authorship”:

The first contributer is the first author. The principle of Police Bot “authorship” is simple. It deletes any contribution that is not submitted by authors listed in the initial semantic template of the previous article's version (n-1 version). The article and its protection are thus simultaneously created. If the first author wants or accepts another author, she or he lists the person in the authors field of the semantic template using the person's user name.

Journal integrations:

The same way wikipedia's articles are rated in quality, revision by other contributers is *de facto* peer reviewing. A tag can be applied. “This article is Reviewed and Accepted as “Open Journal of ...”. As a consequence, submitted but unqualified articles can be easily separated from peer reviewed journal articles based of the described principle. Even though they are not accepted, they still present work that can be continued and/or corrected to be qualified as an acceptable contribution.
The corrections based on discussion page requests, can be accepted by the author(s) of the correction request. A review template based on the authorship principle of article can be used. It will hold an additional field of boolean nature {{effectively reviewed and accepted | “yes” / “no”}} initialized as “no” and that can only be modified by the author of the review. This will be controlled by the same “authorship” bot principle. Under fulfillment of the minimum requirements and based on a number of X effective reviews, the article is tagged by a journal bot of “Open Journal of ...” (the targeted journal). Based on wiki's user data, the review can be qualified as national or international and follows journals current classifications.
Minimum requirements for quality validation as article of “international open journal of...”:

- Dimensional compatibility in equations and assertions and explicit mention of dimensions of all discussed terms.
- Explicit use of statistical treatment for quantitative assertions, with explicitly described design of experiment.
- Accessibility of all the needed data for reproduction and verification of the published work. Whenever it is possible, this data shall be publicly accessible in semantic format and two ways links used to relate articles and data.
- Use of the International System of Units (on top of alternative unit system if wished by the authors[#1]).
- Absence of plagiarism and fallacious or unsupported conclusion.

*Plagiarism:

Other bots are practicable in order to fight plagiarism. I don't consider an action of deletion, but again, a tag in purpose of further correction. There is however a contradiction in

[#1] This is not a request for elimination of alternative systems but a request for compatibility and inter-cultural exchanges.

protection against plagiarism. In the current state of “property” of knowledge. It seems unpractical to address control for plagiarism in sources a bot (or some author) could not access when the discussed piece is not in open access. The vigilance of reviewers remain important while waiting for the freeing of the sources. For other elements, found by bots on the web[#2], if the piece of information is not linked to a present source in bibliography, the stem can be tag with {{citation needed}} and applied with possible plagiarism warning.
If plagiarism is identified and confirmed, followed by no correction from the authors for a threshold of x amount of time, then a bot could sanction the user(s) account(s) by deleting further contributions of the faulty author(s) during X amount of time. The user account remain active and is identified by a plagiarism tag during the sanction.

Conclusion:

I consider the stated principles as viable to all scientific fields and not restricted to my domain. Of course, those principle are to be debated, and I hope they will be. But I see no reason for delaying creation of these wiki based free-open journals. On top of the creation of an International open journal of sustainability, I'd be delighted to see the rise of universities journals in their respective fields of teaching and researching. Granting trust in enthusiasm and willingness of our academic communities toward such a progress for science, I am eager to see the births of first journals. I anticipate the delight it will be to see the development of a collective domain under which all fields are gathered as it has for data for instance in biology with Bio2RDF[9].

Acknowledgement:

I thank all those whose work has made this proposition possible. And I thank in advance all those who will take initiatives to implement it.

First rank broadcast of this proposition has been made to corresponding authors of the references here bellow. This document is made available on HAL and linked in Academia, ResearchGate, LinkedIn, Facebook and Twitter.

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[#2] Or in the web.

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