

WDML - My Thoughts

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Let me begin by putting down my thoughts on some discussion points.

How would you define the WDML?

WDML should aim to be a one stop virtual place for all the needs of a mathematician- where she/he can search and retrieve archival material, find researchers currently working on similar themes, or other areas in mathematics that are using research on her/his theme of interest.

What is the user base that should be targeted ?

Currently: research mathematicians and Ph D Students in mathematics (or mathematical sciences).

Eventually : should include scientists/engineers using mathematical results for R and D, students, historians, the educated citizen...

What are the main features expected from a WDML?

- Search and retrieval of original content **permanently** available.
- Either at no cost or minimal cost to the end user/institution.
- Should include journals and research monographs.
- Should be able to provide to a user names of people working in an area.
- Should be able to provide to a user names of people who use work in an area.

How can the community engage with existing stakeholders (publishers, societies, universities, funders) so as to keep the central WDML entity lean enough to be sustainable?

- Get mathematics departments to participate in the setting up of distributed WDML - and avoid major investment in hardware.
- Impress on Publishers that things are going to change, they like it or not. They have to adjust to much lower revenues.
- Once we get started and funding agencies see the benefits, we can persuade them to fund the WDML activity.

To make WDML successful, we should also simultaneously address the following points

- How to bring in the archival material generated over centuries into the DML.
- How to ensure that henceforth the research work that is essentially supported by public funds (governments, foundations, ...) does not become copyright of publishers.

About archival data

The IMU has advocated free access to the mathematical corpus after a reasonable time lag *moving wall*, but this advice has not been followed by many publishers. As was mentioned yesterday by Professor Ravi Vakil in the panel on publishing, it is now time to act. I suggest that IMU should come out with a deadline- say 31 December 2014 or 1 July 2015, by which all publishers must put research articles published in their journals that are older than 5 years freely accessible to all users (**and hand over soft copy to a DML so as to ensure that material is permanently available**).

The IMU should recommend to the mathematical community not to cooperate with publishers that do not agree by that date - in being members of editorial boards or reviewers for their journals.

The Mathematical community as a whole, led by IMU, should insist that the metadata on content, subject, authors citations etc ... *be openly licensed by their providers, rather than considered proprietary as is the present custom of MathSciNet and Zentralblatt* (Jim Pitman).

Perhaps the IMU/CEIC should first talk to major societies who are publishing journals and take them into confidence and agreement before giving an ultimatum to commercial publishers.

About ensuring that from now on, work supported by public funds does not become copyright of private players:

I endorse whole heartedly the proposal by Professor Ingrid Daubechies that *editorial boards become a society and sign a agreement with the current publisher who should transfer ownership of the journal to the society and at the same time the society asks the current publisher to continue to publish the journals for cost plus reasonable profit basis.*

As she pointed out, one editorial board cannot do this in isolation, but collectively if many leading journal editorial boards do this, it will put pressure on publishers to agree.

Also I suggest that IMU recommend to mathematicians that before submitting any work for publication, they should put the paper on an archive and licence the work under creative commons licence or a variant thereof (as is done by open software community). This will ensure that publishers no longer get an exclusive copyright over the articles.

IMU (or a non-profit agency) could also start an initiative to *e-publish* books. Most authors do not write books (say research monographs) for making money and would be happy to put their book in public domain from day 1. .

Let me conclude by quoting what Professor Peter Olver said

The time is ripe for a radical rethinking of the traditional academic model for scholarly communication within mathematics. ? If we are not properly engaged, the future will be decided for us and, almost certainly, will not be to our liking.