

2015 CEIC Meeting Minutes

21–22 March, IMU Berlin

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21–22 March 2015

1 Business

Present James Davenport (Chair), Thierry Bouche, Olga Caprotti, Tim Cole, Carol Hutchins, Patrick Ion, Victoria Stodden (Skype), Masakazu Suzuki, Ravi Vakil (Skype).

In attendance Wendelin Werner (Saturday), Gerhard Teschow (Both mornings), Birgit Seeliger (Sunday a.m.).

Apologies Ingrid Daubechies.

Welcome JHD welcomed the new members: Patrick Ion and Masakazu Suzuki (physically), and would welcome Victoria Stodden when she Skyped in. He also welcomed Wendelin Werner, who was representing the Executive Committee in place of ID.

Thanks JHD thanked the past members, Peter Olver (past chair) and László Lovász.

Terms of Reference Noted, and our activities are in line with these.

1.1 EC report

WW reported that the EC is elected, and represents the variety of the mathematical community. IMU doesn't enter into politics, and is reluctant to be seen to "dictate". Noted that IMU's resources (money, staff time, volunteer time) are all limited. The GA Resolution on metrics is a good example of being both apolitical and sensitive to internationalization, both in what it does and what it does not do.

2 Minutes and Matters Arising

The minutes of previous meeting (Berlin 12–13 July 2014) had been circulated, and were accepted as a true record.

ICM 2014 One outstanding question was whether the individual articles in the Proceedings of ICM 2014 would have URLs/DOIs? How/when would they appear on the IMU website. **JHD**

Secure communication among prize committees etc.

- WW reported that ID had said that the MathJobs software was successful for the past cycle. GT reported that apparently there had been a backup of the system, by Katie at Duke, but we were unclear about the state of that backup. **Archive**

- WW reported that he had corresponded about his Fields Medal with the IMU by Gmail, and this had immediately leaked onto his Gmail ads etc. PI noted that encrypted e-mail would have solved this issue.
- GT reported that a MathUnion mail server was being set up: the Committee welcomed this. GT/JHD to brief EC about confidential communications, and also work out the logistics for notifying prizewinners etc.

Recommendation 1 *EC to be informed of detailed recommendation to be drawn up by GT/CEIC (through JHD).*

- This also raises archiving issues for the discussions in EC about the Prize Committee etc., but these are the usual Commercial-in-Confidence ones, not the 50/70 year embargo issues, as the names of the Committee are eventually public. If the EC felt that their discussions needed longer-term protection, then such discussions should also be moved to MathJobs. **WW**

- There were also leaks from the registration website in 2010, fixed in 2014.

ICSU/WDS OC reported. The president of WDS has stepped down, and the replacement is not yet known. VS noted that “data” should include the code/scripts that managed the processing of the data, and how these are linked to publications etc. **VS/OC**
The Committee noted that some fields of science have taken steps to establish data repositories.

CEIC Pages The membership (and contact pages) needs updating. [Done] **GT/JHD**
WW reported that there have been debates in EC about the website of the IMU as a whole, which had been designed ten years ago as a lightweight text-only site. In the light of this, the CEIC would look just at the content side of the site. We will also need to look at the WDML component. The 2010 Round Table debate on metrics should link to the 2014 GA resolution. **GT**

The CEIC pages *are* now being analysed by Piwik, but the CEIC figures are largely in single-figures/day. The main IMU pages have better numbers.

3 IMUNet

CH has produced a briefing note, *IMU-Net: what it is and how it comes into being*, partly for us and partly for external authors. Note that the ideal article size is 600 words. Wolfgang Dahlitz does the distribution, but GT maintains the mailing lists. The longer-term plan is for GT to take over the distribution. “CEIC Notes and Comments” is now the title of CEIC’s entry, rather than the (misleading) “IMU on the Web”.

There is a question of whether a publication here is an endorsement: the language should be “you could ...”, rather than “you should ...”. Admittedly we might (e.g. MathJax) be doing “product placement”.

WW reported that EC had discussed the format and editorial of IMUNet: it is currently plain ASCII.

3.1 Future Items

- MathJax — description of what’s feasible. ? May issue by PK. **CH**
 - MathML becoming an ISO standard — **PI** when appropriate.
 - CEIC developments (March 2015 issue) — JHD [Done].
 - An article on accessibility would be very helpful. **MS** volunteered to write one for July.
 - TB noted that an article “How to create a mathematical blog” would be useful.
 - CH has been asked about a system called AuthorEA: <https://www.authorea.com/>. She wondered whether we should write about this. It was noted that there are many tools in this space. A comparative evaluation (or a short piece about such an evaluation) would be helpful.
 - TC mentioned the W3C Interest Group on STEM Publishing: see <http://www.w3.org/2013/02/digpubig.html>. An article on this would be helpful. **TC**
- + CEIC asked, and TC agreed, that TC represent CEIC, and therefore the “mathematical community” on this group. **EC to note**

4 GDML

PI reported on the progress of the Working Group. It has had over 20 telcos. The group has examined the tensions between “starting somewhere”, and being seen to be a national initiative. This is a group of eight people, albeit with a formal CEIC Mandate.

4.1 Legal/Governance Issues

- Setting up an International Mathematical Knowledge Trust, to act as a “top node”: in US-speak this would be a 501(c)3 body. Approaching Sloan Foundation for support: they would now like a formal proposal. These would have to be channeled through some body: FIMU was proposed as a vehicle for this, and PI had spoken to them.

Recommendation 2 *CEIC welcomes the process of setting up an independent (i.e. legally independent of IMU) body to implement the 2006 Resolution. EC is asked to note this, lend its support, and encourage others to do the same.*

Recommendation 3 *CEIC welcomes the possible involvement of FIMU in this process of setting up an independent body to implement the 2006 Resolution. EC is asked to lend its support.*

PI and JHD noted that IMU should probably nominate some of the trustees of IMKT.

- There are issues of sustainability of the new IMKT¹, and over its governance. PI drew attention to www.hathitrust.org as a model we could follow.
- WW reported that the EC had seen the tensions between productive use of the “IMU brand” versus “mission creep” of the IMU — the IMU can’t end up running it.
- The IMU should keep the (currently pointed to, but empty) wdml.org website.
- TC noted that there is real work to be done in creating the node. A mere list of projects does not suffice.

¹ID had reported “We are still thinking of a more appealing acronym than GDML; for the moment we are considering MIDAS (Mathematics In the Digital Age of Science) – it covers much more than the “library” aspect – and after all, we are hoping to find ways to turn lots of digital information inthe mathematics world into intellectual gold .” midas.net, midas.info and midas.org are all taken. PI reported that this was a “brand name” issue, not a legal one.

4.2 Content Issues

TB has provided a set of notes to document the digitisation/aggregation front of the effort. TB noted that not so much actual plans for the GDML implementation have been written down so far!

It was noted that OEIS (On-line Encyclopedia of Integer Sequences), Math genealogy project etc. were all examples of “Mathematical Knowledge”. There are lots of interests in mathematical knowledge: statistics, graph-theoretic, semantic — (Kohlhase, Buchberger, Wolfram etc.).

The “semantic” team is looking at organising a workshop in this area. Sloan would be interested in funding this, but via whom? FIMU is one option, as is the Wolfram Foundation.

TC noted that national societies, who are IMU members, own some of these resources, but the ownership picture is very mixed: AMS owns MathSciNet, for example, but OEIS is an independent foundation, and Mathematical Genealogy Project (MGP) is currently less structured.

TB noted that EuDML was now a proper entity, with formal EMS support. This has, however, not led to great support from national organisations. Most of the work on EuDML has been done by volunteers.

TC noted that Hathi digitised *all* disciplines, and ArXiv supported a large range of disciplines. It is hard to persuade a library to support a single-subject initiative.

The Committee noted that the WDML pages on the CEIC web site needed updating, and the formal charge for the WG by CEIC added.

PI/GT

PI will also see if rate of posting to the Working Group Blog can be increased a bit to help maintain interest and give a sense of the progress of the Working Group without being overly confrontational or controversial.

PI

5 Review of ICM 2014

WW reported that it was generally a tremendous success. However, the level of support should not be seen as setting a precedent, nor should every supporting event necessarily be replicated. It was noted that the precise location (within Rio de Janeiro) and date of the 2018 ICM were still being clarified.

JHD’s view is that the panels went surprisingly well, much helped by having notetakers and a recording: it was remarkable to him how much easier having the notes made compiling the final record. Organising three panels should not be regarded as a precedent either! We were also very late in the day organising them: should start earlier for 2018.

The general amount of recording was amazing, but a major strain on the local organisers and on bandwidth. Other than a dump for resources (useful), the blogs had not been used: probably the blogs should be publicised, and possibly even “primed”, before the Panels in future.

6 Open Access/Copyright etc.

VS: we have looked at 2001 document. We still intend to write along the lines of “If you’re a publishing mathematician, here’s what you need to know”. But we’ll produce a new document rather than an update. It has become clear that there are two aspects to this document:

- what do you need to know in today’s world;
- what should an ideal world look like;

and we might separate these two documents. There is currently a Google document: she would be happy to share with others interested.

One major issue is different legal/IP philosophies, and VS brings the US point of view, and UR a very different one. We would ask MS to comment on the Japanese point of view, and the past Chinese member on EC would also be helpful. Even then we should anticipate gaps, and well just have to backfill these after initial (draft?) publication.

The most recent development in the U.S. is at http://www.nsf.gov/news/news_summ.jsp?cntn_id=134478.

NSF will require that articles in peer-reviewed scholarly journals and papers in juried conference proceedings or transactions be deposited in a public access compliant repository and be available for download, reading and analysis within one year of publication.

This currently doesn’t address software and data: VS is watching this area, and the CEIC document should address these.

Other national positions are here.

UK http://www.hefce.ac.uk/media/hefce/content/pubs/2014/201407/HEFCE2014_07.pdf — there have been previous statements by the research councils (analogous to NSF) that directly fund research projects, but that affects the minority of mathematicians: this one affects all university mathematicians. Open access is required for journal articles and conference proceedings accepted for publication after 1 April 2016, which must be deposited (possibly embargoed) within three months of acceptance..

Sweden <https://publikationer.vr.se/en/product/proposal-for-national-guidelines-for-open-access-to-scientific-information/> — target date 2020.

There are a variety of policies, and there are challenges for co-authors from different regimes.

TB commented that what should be published is the *final* version, whereas what we often see is preliminary versions, sometimes with different page numbers etc., and even different equation numbers. The report would need to be clear on these issues. TC also noted the “errata” issue.

PI reminded us of the Sloan report on “where do you get your information” [UC13], which had a very small number of mathematicians, or even physical sciences in general, among those surveyed. VS noted that much change, e.g. PLOS, is driven by the life sciences, who have very different scientific considerations. JHD noted that Mathematics is at one extreme of the spectrum: to quote Bourguignon at ICM 2014 —

Biologist: “I need my paper published tomorrow, and I don’t care if it’s readable in five months” — a very different view from the mathematician’s “I don’t care if it takes a year to appear as long as it’s readable in a hundred years”

MS reported a pan-science Japanese report. It stated that the proportion of OA (green and gold) was increasing: currently around 14%. Almost half of researchers reported that it was easy to get APC charges (since this was in the grant). However, “university-funded” was declining against “competitively funded”. TB mentioned <http://www.sjscience.org/>.

6.1 Funding

TC asked “who pays”? The PLOS model is set up by biologists, which assumes grant budgets. TC said that Cambridge had a couple of “reasonably-priced” OA journals, and AMS had done similarly. OA charges are interesting [Kill15].

RV noted that Mathematics Departments generally did not have these sorts of budgets. TC, as a librarian, noted as follows.

Understood, although I will say that when deciding on which memberships the Math Dept. at Illinois maintains, they do tend to take into account the content that come with membership, and often opt for a higher tier if it means getting a more complete list of journals or proceedings for the math library – which saves me a little budget.

The challenge for the GDML, if it ends up relying on a membership or subscription model for sustainability, will be to identify the audience that will pay for membership or subscription. At the university library level, GDML will likely be seen as too domain specific to receive general library funds. At the math library level, the concern would be the amount of membership or subscription. And as you point out, Math Departments will not be inclined to pay. Possibly a model allowing for smaller fees and set up to encourage joint Math Library / Math Department membership might work. . .

There was a discussion of ownership of journals, e.g. *Compositio Mathematica*, owned by a foundation and subcontracted. It was noted that this was a good model: how do we disseminate this recommendation?

JHD

6.2 EMS document

The President had asked CEIC to note the EMS “Basis for discussion on OA”. The document is somewhat conflicted because EMS at once wants to support Open Access and still make money (or at least break even). CEIC reminded itself of the points in section 1.1.

CH reported that the “Directory of Open Access Journals” had asked all journals to re-apply, under stricter conditions². We should see where this has got to. **CH**

TC noted that any action which prevented (naïve) mathematicians from publishing in predatory open-access journals was good, as it both helped the mathematician and decreased the “bragging rights” of the predatory journal.

TC noted that Illinois had calculated that an OA/APC model would cost it three times as much as it currently pays in a subscription model.

That part of the document that dealt with journals³ would be fed into the general discussion of the Working Party. **VS/JHD**

6.3 Conclusion

Aim: to develop a version in the WP, circulate to CEIC this summer (2015). JHD hoped that we could produce a final version in 2015, and possibly the EC could endorse this as an update of the GA report, rather than needing a new GA approval. **EC**

7 Wikipedia

7.1 IMU Wikipedia

The IMU article in English Wikipedia needs updating for the new officers.

TC noted that, while the IMU article in English Wikipedia was good (Thanks, Lena), the German one, say, was much shorter. The French is only five lines. The HQ clearly cannot maintain all language versions: maybe the IMU should ask its members to update their versions. **EC**

7.2 Mathematical Pages

All agreed that Wikipedia is, in practice, a major resource, especially for students at all levels. JHD’s view is that, while there are very few actual errors in [at least English] Wikipedia mathematics pages (and those that there are tend

²OC noted that there is no mention of embargo: but TB noted that a truly OA journal has no embargo.

³There is also a section on metrics which is dealt with by the GA 2014 resolution.

to be corrected: the advantage of a wiki!), the pages vary greatly in coverage and quality. http://en.wikipedia.org/wiki/Algebraic_geometry has been cited as an example of an “unhelpful” page: RV agreed. However, no-one had a good solution here: Editathons were mentioned and dismissed as a solution to the “page is correct but unhelpful” problem.

WW noted that the only neat five-line proof of the uniqueness part of the Circle Packing Theorem is in Wikipedia⁴.

JHD would mention the issue of correctness, and call to rewrite as necessary, in his IMUNet article. He would also check with ICMI. **JHD**

RV observed “This seems just what to expect from Wikipedia. Doesn’t seem worth effort to fix it. Wikipedia seems more suited to individual elements.”

8 DOIs

CH raised the question of DOIs for IMU publications. RV commented that “DOIs are for persistence/discoverability — seems appropriate for certain IMU docs”. TB said that MathDoc is a member of CrossRef and generated DOIs.

TC reminded us that TC/CH/OC had committed at the last meeting to study the issue. **TC/team**

It is forbidden to have two DOIs for the same object, which might cause problems with ICM Proceedings, where the “real” publisher might also issue DOIs. **JHD/ICM 2018**

Hathi Trust has handles (specific to HT instance) for items made from scan of prints; new will be digital.

9 Archiving

9.1 E-mail

GT explained the archiving process for e-mail. The technology is an IMAP mailbox set up by GT. The person whose mail is being archived then transfers (either copy or move: probably copy followed if wanted by a delete after the transfer is successful) the mail using his mail client. At this point the mail owner’s task is finished, and the complete mail structure is now in the hands of the IMU office.

This mailbox is then archived, and a .pst is created. TC noted that there are two kinds of .pst files - compressed (proprietary) and text.

There is then the step of creating a file system structure which reflects the mail structure. There is a PDF/A file containing the body and all the metadata. The attachments are saved “as is”, but also there is an

⁴http://en.wikipedia.org/wiki/Circle_packing_theorem. TB added that http://en.wikipedia.org/w/index.php?title=Circle_packing_theorem&diff=202165964&oldid=202158966 was precisely the source!.

Oracle product which understands over 600 attachments (TC moved that Powerpoints with animation tended to have things lost) and these are also stored as PDF. All this is then archived into the IMU archiving system.

Outgoing officers Peter Olver, as a test case, has supplied his mail. 11,000 documents and 4,000 attachments. TC noted that it would be good to have a test of the system. JHD volunteered to agree with PO, and then be a test case with a “what did my predecessor ...” question.

9.2 Lists

The mailing lists are (short-term) archived already, but transfer into the long-term archive has yet to be done. There is no external involvement in this process: purely IMU Technician and Archivist.

9.3 State of Archives

The quadrennial report stated that “The CEIC is investigating what is missing in the IMU archives, both physical and electronic”. ID had written to past officers. BS presented a spreadsheet showing the state of what had been collected. We now know which people have, apparently, returned answers, those who are deceased etc., and those where we have outstanding questions. In some cases, e.g. Jessen, there is information in other institutions. TC noted that writing to such external archivists may prompt them to catalogue. TC noted that his university archivists would not transfer materials, and would make copies of materials only if the requestor paid.

There are questions over the copyright in letters, which is very jurisdiction-dependent. While complex, JHD felt this was an issue for historians wishing to use, rather than archivists

9.4 Historical Material

See <http://www.mathunion.org/Publications/historic-material/>. IMU has launched the IMU Media Platform for rights-cleared photographs, which it supports technically and with archiving (of items deemed important, in practice by BS). For photographs taken by professional photographers, IMU can only state what it has. HH will announce this to Adhering Organisations in the next few days, and then it will be mentioned in IMUNet.

9.5 Past ICMs etc.

Once it is static, the plans is to transfer the ICM2014 server to the IMU archive. It seems that the 2014 server only includes links to the videos: they are actually on Youtube. Also, there are copyright ICM2014, rather than IMU. It was noted that Youtube pays for the bandwidth if one links to Youtube, so the IMU would

be wanting the copy⁵ purely for archival purposes.

JHD/Park

ICM 2010 has been copied safely to the IMU archive. There were problems with the 2006 server, as it has a dynamic server behind it. The Committee was worried that this server will eventually be turned off, so we should try to continue to recover it. TC thought `wget` would work.

TC

The 2002 ICM is successfully copied to the IMU archive, as is 1998.

9.6 2014 Twitter feed

OC asked whether this should be archived. The practicalities of archiving Twitter needed to be investigated.

OC

9.7 Photos

CH reported that she had been asked to find a photograph of Louis Nirenberg, the first Chern Medal winner. She asked whether the IMU could make it a policy of taking IMU-copyright photographs of prize-winners. BS reported that it was difficult to get professional photographers to sign such a contract: they would normally only give a "right to use". The photo-archiving system is a development of the general IMU digital archiving system.

9.8 Confidential Prize Archive

Status of 2014 round archive at MathJobs: apparently Katie took an archive, but no-one at IMU knows about it. The Committee believes that IMU should hold an archive copy, subject to the 70-year rule.

JHD/ID

9.9 IMU Web Pages

[Post-meeting note: correspondence JHD/BS]

Gerhard informed BS that the IMU web pages are saved once a week as a image copy but the searching for a certain time is quite difficult. Alternatively he showed the wayback machine of a non-profit Internet archive. There you can find the IMU pages:http://web.archive.org/web/20000501000000*/http://mathunion.org. It looks very well. The only problem with this machine is: That's not our machine.

As JHD understand's it (but it really needs checking out) the completeness of the web archive (it's not our machine, as you say, but that's another question) for a site backed by a CMS (rather than static pages) is variable, depending on the interaction between the CMS and the archive. For an example that is more

⁵TB raised the point that the originators may also have a higher-definition version than that stored on Youtube.

complicated, see `weather.bbc.co.uk` (or your equivalent). But if BS and Gerhard think it's doing a good job of IMU pages, that's excellent.

2016 CEIC

10 CEIC Annual Report

Approved with minor amendments.

11 Date of Next Meeting

TC said that he could host in Chicago (probably later than March, say May).
The obvious alternative would be Berlin.

JHD/HH

References

- [Kil15] R. Kiley. The Reckoning: An Analysis of Wellcome Trust Open Access Spend 2013-14. <http://blog.wellcome.ac.uk/2015/03/03/the-reckoning-an-analysis-of-wellcome-trust-open-access-spend-2013-14/>, 2015.
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