At the R2RConference 21-22 Feb 2017 we held a Workshop on 'Which Standards Matter and Why.' This is the second time I’ve attended the conference and two things stood out for me again - the mix of Publishers and Librarians and the enthusiasm and hard work of the delegates for the workshops. The former is very refreshing as it creates an environment for some of the contentious issues around OA publishing in particular to be discussed in less adversarial terms than happens perhaps online via blogs and mailing lists.

The workshop posed the question in relation to existing, emerging and missing standards: ‘How can research libraries, publishers and their intermediaries co-operate to solve some of the ‘pain points’ in rapidly evolving scholarly communications processes?’

We held 3 meetings over the two days of the conference:

Meeting 1: Monday 10:25 - 11:20   Setting Scene - Collecting information

Meeting 2: Monday 16:40 - 17:30  Standards in publishing process; usage and gaps/pain points

Meeting 3: Tuesday 10:30 - 11:20  Priorities & Actions

**Meeting 1**

Collecting, describing and surveying standards - what standards we know about; what we think they are for and level of awareness/adoption.
We collected standards in categories including Identifiers (shown above), Definitions; Lists/Taxonomies; Data Models; Policies & Other

What was clear from the group was that Identifiers were the most popular and the photos below (1 - not aware; 2 - thinking/planning; 3 - using) indicate the high engagement with ORCID, DOI/Crossref and ISBN/ISNI but the split engagement across the various Organisational Identifier initiatives ISNI, RINGGOLD & Digital Science’s GRID. The FundREF finding is also interesting as many people are thinking about using/planning to use - but none yet are.
Meeting 2

Identifying ‘pain points’ in publishing process and where existing standards are being applied or could be applied or gaps that need a new standard.

We concentrated on journal article publishing given that this was the process familiar to most of our participants. This was simplified down to the following basic steps:

- Submit
- Review
- Publish
- Payment

With the payment positioned somewhere along the line .... and here we mean paying APCs

We split into four groups each tackling one of the boxes. Summarising ‘pain points’ from each - and such was the level if enthusiasm the groups cheered at the thought they would be coming back the next day to think about ways to start to resolve some of these problems! To right is a shot of the issues discussed in the group tackling the ‘Publish’ step:
<table>
<thead>
<tr>
<th>Submit</th>
<th>Review</th>
<th>Publish</th>
<th>Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>No consistency of instructions to authors</td>
<td>Identifying reviewers and being able to check they are who they say they are (certify); no robust registry of reviewers</td>
<td>Many different licences misunderstood by authors</td>
<td>Difficult to determine who pays</td>
</tr>
<tr>
<td>No standard information requirements for manuscript submission</td>
<td>Review process is based on original paper-based one - to- one process rather than a collaborative process taking advantage of new technology</td>
<td>No standard information requirements for acceptance notification to authors</td>
<td>No standard information requirements for invoice - critical for efficient process and quality data</td>
</tr>
<tr>
<td>No open persistent ID allocated at submission</td>
<td>Little/no? recognition of Reviewer role - although issues around blindness</td>
<td>Not all deposits to pubmed are automated</td>
<td>Different publisher models/offers - lack of transparency at point in process required</td>
</tr>
<tr>
<td></td>
<td>Inconsistent times across sector for process - should there be standards we adhere to i.e. review within x days?</td>
<td>No consistent link to pre-print where it exists online</td>
<td>Lots of point to point interactions; many publishers with many journals dealing with many many authors and many libraries.</td>
</tr>
<tr>
<td>Reviewer training - standards?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Meeting 3**

Identifying what standards relevant or required to relieve the ‘pain points’. The solutions we discussed divided into three broad categories: (i) further use cases for existing standards. (ii) working groups to tackle missing standards around key exchange points and (iii) broader guidance/best practice development.

So looking at identifiers - where can these be further embedded in the process?

1. DOI - allocate as early as possible so why not at manuscript submission? Ok it may not be published by that publisher or even at all but is that really a problem compared to the advantage of having a persistent identifier allocated up front to ease the workflow down the line?
2. ORCID - require reviewers to have an ORCID - to help ensure are who they say they are and give context. Interestingly after the workshop I then saw the
3. Organisation ID - no single standard established yet - needs to be: work going on see https://www.crossref.org/blog/the-organization-identifier-project-a-way-forward/

4. FundREF - related to 3 to get organisational identifiers but also need authority file for grant/project references as reporting needs to be to the project level not just the funder.

And what about new standards? Two areas stood out:

1. Standard information required for APC invoice – initial thoughts from the group.
   - DOI (should be created early – why not on submission?)
   - ORCID for (at least) corresponding author
   - Institutional identifier for (at least) corresponding author - ISNI or Ringgold or GRID
   - ISSN
   - Publisher identifier - ISNI or Ringgold or GRID?
   - Itemised – APC, page charges, colour charges
   - Funder identifier/s – FundREF
   - Project identifier/s

2. Standard information required for manuscript submission.

And, finally the broader guideline development:

1. Reviewer training - we heard at the conference plenary that several publishers do provide this; it would be good to know more about what they do and whether best practice guidelines are available to share.
2. Instructions to authors & expected standards of service; what is expected from the author and what they will receive in return included expected timeframes, technical requirements, funder compliance alignment, costs ....

Much of what we found came as no surprise - areas such as need for persistent Organisation Identifiers - and work is underway involving the wider research sector. But some are things that have not yet started to be addressed and there was a real expression from the workshop that these should be tackled through a mechanism such as a CASRAI working group or similar.

We welcome feedback and offers to help take any of the above forward as this needs to be done collaboratively.
Appendix: Complete set of photographs from Workshop

Meeting 1: Monday 10:25 - 11:20 Setting Scene - Collecting information
LIST / TAXONOMY

Theme

Mesh
Inspec
Loc

Subject Vocab:
  eg:
  AAMI
  Anvil

Controlled Vocab:
  LCSH
  FAST
DATA MODEL

COUNTER

COUNTER

COUNTER

COUNTER

JATS

METS

MARC21

MARC XML

COUNTER
GUIDELINES

PROJECT TRANSFER

ARTICLE VERSION 1 (2020)

PUBLISHER GUIDELINES (which vary by journal and publisher)

W3C Recommendation

UL PUBLIC ACCESS MANDATE

RESEARCH ORGS GUIDELINES FOR RESEARCHERS
ALTHEMICS - IS IT A STANDARD?
- GUIDELINE

IDENTIFIERS

ORCID - UNIQUE ID FOR INDIVIDUALS
1 - 0
2 - 24
3 - 20+

DOI / CROSS-REF - DIGITAL OBJECT IDENTIFIER
1 - 0
2 - 0
3 - EVERYONE

RESEARCHER ID - PROPRIETARY IDENTIFIER (ECS)
1 - 8
2 - 0
3 - 0

ISBN / ISSN - PUBLICATION IDS (CERTAIN TYPES)
1 - 0
2 - 0
3 - EVERYONE

FUNDER - ON FUNDER REGISTRY, ID OF FUNDER
1 - 3
2 - 3
3 - 1
DATA MODELS

COUNTER
- COUNTERS USAGE/DOWNLOADS
  0: 81 1-6
  1: 7 3-7
  2: 5 2-5

METS
- METADATA STANDARD FOR ENCODING DIGITAL OBJS
  1: 7
  2: 6
  3: 0

JOURNAL ARTICLE TAT SUITE
- STANDARD FOR JOURNAL ARTICLE METADATA (WRANL/MARCT)
  1: 12
  2: 5
  3: 3

MARC/MARCXML/MARCZ39
- BIBLIOGRAPHIC STD FOR LIBRARY CONTEXT
  1: 0
  2: 2
  3: 2

DUBLIN CORE
- METADATA STANDARD FOR DOCUMENTS
  1: 0
  2: 4
  3: 20+
**Policy**

**COPUS** - Standards to identify funders of research, using standards to create better understandings

1. 3
2. 13
3. 4

**SUSHI** - Harvesting standard for capture RDA

1. 3
2. 11
3. 8

**CASRI** - Umbrella for green standards

1. 10
2. 6
3. 4

**Project Transfer** - Recommended practice for transfer of journals

1. 12
2. 6
3. 6

**Credit** - Contributor identification

1. 12, 2. 7, 3. 2

**Subject Classification** - Mesh, etc.
ISNI - OPEN STANDARD IDENTIFIER FOR CREATIVE INDUSTRIES

RINGGOLD - ORGANIZATIONAL IDENTIFIER PROPRIETARY

VIAF - COLLECTION OF LIBRARY AUTHORITY FILES, DEFINITION / DESCRIPTION OF PEOPLE

LSID - CLASSIFICATION OF ZOOLOGICAL TAXONOMY ASSIGNED TO PUBLICATIONS

GRID - INST. IDENTIFIER (OPEN)
Meeting 2: Monday 16:40 - 17:30 Standards in publishing process; usage and gaps/pain points

- Identifying peer reviewers
- Certifying/validating reviewers
- Transparency mostly reflects a "paper" based process
- Recognition of reviewer role
- Reviewer access to original data
- Degrees of 'blindness'
- Time - inconsistent time
PUBLISH

* Author gets wrong licence
* MINT DOT - * SOME NOT MINTED
* EARLY

PRODUCTION
* COPY EDIT
* MARKETING

ASSIGN TO AN ISSUE?
* CHANGES VERSION
* DON'T NEEDS

INFORM LIBRARY OF ACCEPTANCE
* ERRATA/AN err

INDEXING - PURNED
* GOOGLE SCHOLAR
* INDEX SITES
* RAIL TURNTIN

REPORTING TO FUNDERS
* NOT PUTTING ACHIEVEMENTS
* NOT ALWAYS DONE
* NOT ALWAYS DONE

PUBLISH SITES > PREPRINT LINK
INSTRUCTIONS FOR AUTHORS

(No statement?)

SUBMISSION FORMAT — EEO
STANDARDS — DATASETS

ORCID

Funders Registry

Institution Identifiers

KEYWORDS / ARTICLE CLASSIFICATION

AUTHOR CONTRIBUTION — CREDIT
PAYMENT

WHO PAYS?
- Fund
- Author
- Principal or?
- Library
- Institute
- Sponsor
- Fund

Functionally?
- OA Manager
- Who deals with invoices

Different APC models
- Membership
- Pre-pay
- Affiliation
- Tiered?
- Based?

Dealing with individual publishers - no centralisation
- Very granular

Have not got OA at force of acceptance
- Crossref pre-prints
- Non-APC publication charges
- Page
- Colour

Hybrid jris - double dipping

transparency
- Pricing/Differential

Staffing of OA in Inst

APC price - more in total than does model

Big deal for OA

AFPs

Pre-payments not held in escrow
ORCID for reviewers
- No brainer

Reviewer registry

Reviewer training standard
Submit

Instructions for Authors
(no stream?)

Submission Format — EEO Standards — Datasets

ORCID

Funders Registry

Institutional Identifiers

& Keywords / Article Classification

Author Contribution — Credit
VERSIONS / PREPRINTS

DOI FOR PREPRINT
- BARRIERS TO WIDE USE
  e.g. SOCIETIES / SMALLER PUBLISHERS.

STANDARD FOR VERSIONS

LICENCES +
FUNDREF + LICENCE (e.g.
PART OF METADATA.

DB. PUB MED - AUTOMATE IF ND FUNDREF.
Create standard guidelines for ensuring user
industry.

Proprietary solutions exist, but no user led

Guidelines for implementation

Set having group (omitted)

Published guidelines (possibly

Collaboration)