Recent Progress of CrossRef
Recent or future services

- Organization identifier registry
- Book Advisory Group (BAG)’s book citation guide under discussion,
- Event data
- Preprints service
- Reference metadata search
- **Content Registration →** Datacite
- Clinical trials data linkable with publications.
Organization identifier registry

• How to give unique ID to organization?

• Cf.
• Researchers → ORCID
• Articles → DOI
• Organization → ?
Why is it difficult?

• Organization is different with individual person: it can be merged, disintegrated, removed, changed of its title; sub-divided or moved to higher hierarchy.
• Uniqueness should be defined more delicately.
• CrossRef works together with other organization such as NISO (National Information Standards Organization)
• The results will be announced in the near future
Book Advisory Group (BAG)’s book citation guide

• Under discussion.
• Best practice for books suggested:
  – Register the content;
  – add outbound DOI etc.
Crossref Event Data

• Discussions around scholarly research often take place on the web outside of publisher platforms
  – blogs
  – sharing services
  – social media

• With tens of thousands of events occurring every day at a rate of approximately one per second, there’s a wealth of insight that can be derived by analyzing and interpreting this data.
The service

• Crossref Event Data, will collect and store this activity and make it available as a raw data record for anyone interested
Benefits

• Our data is open, auditable, transferrable, and portable.
• Regular updates from data contributors and reliable, secure storage.
• Raw data, free of charge with the addition of an SLA provided at favorable rates.
• A community-led initiative and data from a neutral source.
Audiences

• Publishers and publisher platforms
• Journal editors
• Altmetrics and other service providers
• Funders
• Bibliometricians
• The research community
The service

Using an item’s Crossref DOI, we are able to find out when it has been saved, shared, liked, referenced or commented on in a range of different environments:

• **Twitter** and **Facebook**
• Reference and blog sites like **Wikipedia** and **ResearchBlogging**
• Links between authors, datasets and content items as they are added into the metadata deposited with **DataCite** and Crossref
Preprints

- Crossref DOIs for preprints supported from Nov 2016
- Link to AM/VoR in the Crossref metadata
- Over 10,000 deposited

```xml
<posted_date/>
<program xmlns="http://www.crossref.org/relations.xsd">
  <related_item>
    <intra_work_relation relationship-type="isPreprintOf" identifier-type="doi">10.3390/data1030014</intra_work_relation>
  </related_item>
</program>
```
Reference metadata search

• Citation information is possible via Crossref reference list.

• If all publisher deposit references completely

• ➔ Fantastic indexing database
Connections, usage and reuse

• Publishers making reference lists open via Crossref

3/5/17

Springer Nature becomes largest publisher to open up all reference lists

6 March 2017: Springer Nature becomes the largest academic publisher to open up reference lists to advance data discovery and reuse, effective as of today. Working closely with Crossref, Springer Nature will make the metadata for reference lists available across all academic books and owned journals (and as an option for society partners.)

The references are available through the Crossref Metadata APIs and Metadata Search including the ‘link references’ tool for matching references to DOIs.
Connections, usage and reuse

– Cited-by counts available via the REST API
– How many other publications are citing you?

```json
{
    "citing-count": 36,
    "subject": [
        "Medicine(all)"
    ],
    "ISSN": [
        "1549-1676"
    ],
    "URL": "http://dx.doi.org/10.1371/journal.pmed.0020124",
}
```
Citing data

• In relationships
  – for data and software, we recommend “isSupplementedBy” and “references” as relationship types in the metadata

• In references
  – deposited in article references
Conclusion

• New services from Crossref → Digital standards of scholarly publishing journal.

• Local journal publishers’ role and duties
  – To adopt Crossref services immediately
  – Raise the information technology companies to deal with Crossref services
  – To be alert to Crossref’s activities
Thank you!

It was presented base on the slides provided by Rachael Lammey, Crossref

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