

Manuscript Exchange Common Approach (MECA)

September 20, 2017



Agenda

- Background, Principles, Use Cases – John
- Project Areas – Joel/Sally
- Action Items & Timeline – Chris
- Commenting Process – Helen

John Sack, HighWire Press
Joel Plotkin, eJournal Press
Sally Ubnoske, Aries
Chris Heid, Clarivate
Helen Atkins, PLOS
Craig Journey, HighWire Press



What's the Problem?

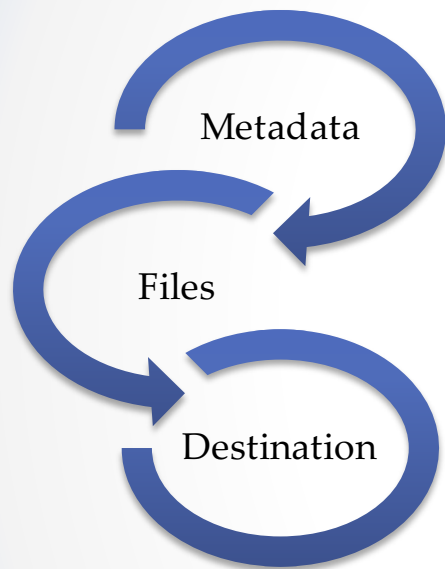
Problem

- Authors are irritated at time, effort, **delays when re-submitting articles**
- Reviewers' time is wasted when **reviews are re-done or replicated**
- New publication flows demand **transfers to/from preprint servers**
- Each workflow system has to **implement separate interfaces** to each other system – inefficient to work “pairwise”

Opportunity

- A **common approach to moving manuscripts** solves the above use cases, but can also solve some additional workflow problems!

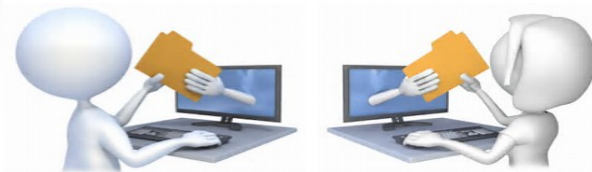
All we need is for a group of competitors to collaborate!



- A group of vendors and publishers
 - HighWire: BenchPress
 - Aries: Editorial Manager
 - eJournalPress: eJPress
 - Clarivate: Scholar One
 - PLOS: Aperta
- Develop a common approach
 - Not software, not a central service, not a database
 - Recommended best practices
 - Non-proprietary, CC-BY
- Hope for wide adoption
 - Outreach, NISO, JATS4R, JATScon
 - Webinar (you... here... now...)



Principles



1. **Journals & authors set the rules on what transfers**
...not MECA
2. **Seamless transfer between publications and platforms**
...but not necessarily complete submission
3. Define minimal required data for transfer
 - **The data needed to *start* a submission**
4. Define MVP (Minimal Viable Product)
 - **Get going now**, but build for future use cases
5. Protocol based on best practices and industry standards
 - Low barriers to entry to use MECA
6. **Recommendations, not code**
 - **No hub, no software, no service**
 - **Not like Crossref or ORCID; no tracing of manuscripts**

Use Cases

Manuscript transfers across boundaries:

Journal

- Submission System to Submission System (primary)

Preprint

- Preprint System to/from Submission System (primary)

Syndication: Import from...

- Authoring Systems to Submission System (primary)

Syndication: Export from...

- Submission System to Various Services (secondary)

Project Areas

- Vocabulary
- Packaging
- Tagging
- Peer Review
- Transfer Information
- Identity
- Transmission

Project Areas – Vocabulary

- **Goal:** To provide a **standard nomenclature**
- Provides a baseline for understanding
- Includes 4 Use Cases
- Includes Term, Definition, Synonym, 'Often-confused-with' alternatives, and Examples
- Includes 70+ Terms
 - Publishing terms like 'Author', 'Review', 'Downstream Processing'
 - Technical terms like 'BITS', 'Interoperability', 'Mime Type'
- Can be updated over time

Project Areas - Packaging

- **Goal:** simple, flexible, standard way to **assemble files**
- Zip File
- Team will register a new 'mime type' and file extension for the package
- One manuscript per zip file
- Package contains:
 - **Manifest.xml** * (new DTD for file manifest)
 - **Transfer.xml** * (new DTD for source/destination, contact, and security information)
 - Article.xml (JATS-compliant)
 - PeerReview.xml (optional - JATS-like)
 - Source files

* Required Item

Project Areas - Tagging

- **Goal:** To be able to pass **submission information** from system to system
- **Article.xml** (file in JATS format – Green DTD compliant)
- Defines minimal required data*
- Only the highest revision of the submission is written to the XML
 - Article Identifiers (Manuscript Number, UUID, DOI)
 - Article Title *
 - Article Type, Category, Classifications, Keywords
 - Corresponding Author* and Co-Authors (with affiliations)
 - Related articles, Preprints
 - Funding Information, Custom Metadata
 - Figures, tables, supplementary material

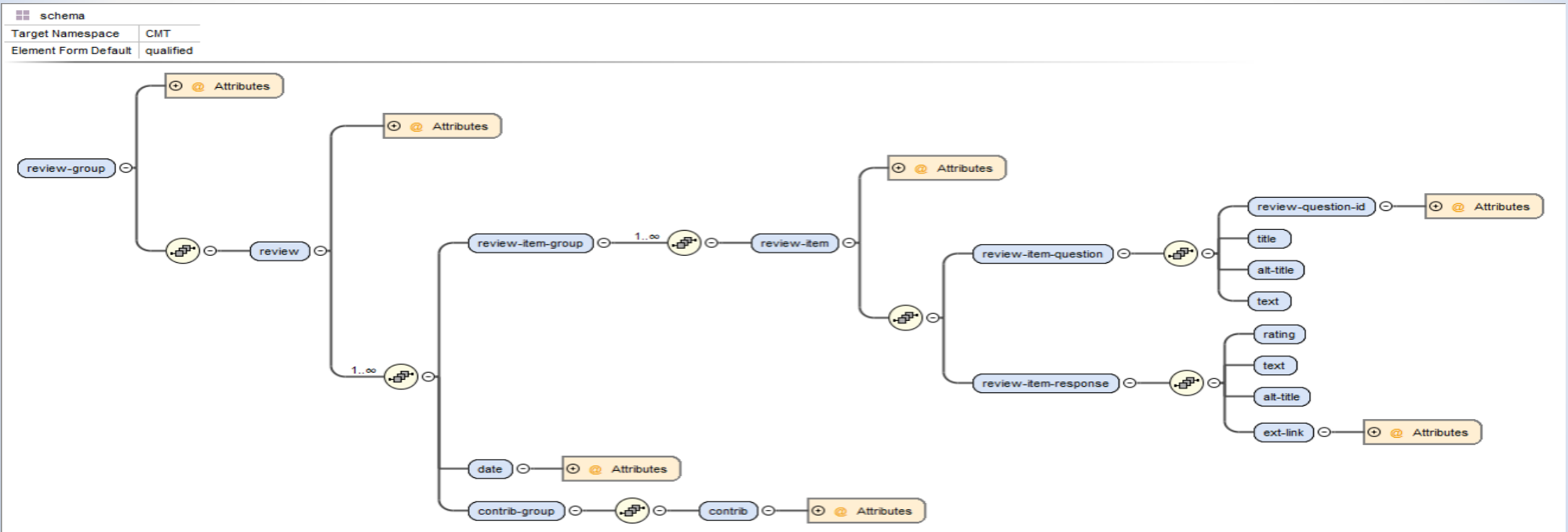
Project Areas - Tagging

```
<?xml version="1.0" encoding="utf-8"?>
<!DOCTYPE article SYSTEM "JATS-archivearticle1-mathml3.dtd">
<?version 3?>
<?xml-stylesheet type="text/xsl" href="xslt/main/jats-html.xsl"?>
<article>
  <front>
    <article-meta>
      <article-id pub-id-type="manuscript">DEMO131-D-16-00110</article-id>
      <article-id pub-id-type="doi">10.1234/91.1191023</article-id>
      <article-categories>...</article-categories>
      <title-group>...</title-group>
      <contrib-group>...</contrib-group>
      <history/>
      <related-article related-article-type="Original study">DEMO-D-05-00002</related-article>
      <related-article related-article-type="preprint">10.1372/journal.DEMO.preprint.0000042</related-article>
      <abstract>...</abstract>
      <kwd-group>...</kwd-group>
      <funding-group>...</funding-group>
      <funding-group>...</funding-group>
      <custom-meta-group>...</custom-meta-group>
    </article-meta>
  </front>
  <body>...</body>
</article>
```

Project Areas – Peer Review Data

- **Goal:** To be able to pass **review information** from system to system
 - Questions/Answers
 - Ratings
 - Comments
 - Annotations
 - Red lines / Marked up files
- **Privacy**
 - Reviewer names/contact information can be redacted
 - Based on sending journal's privacy policy
- **Reviews.xml** (file is similar to JATS)
 - Decided information does not belong in article.xml
 - Multiple reviews & revisions in one file
 - DTD has ~16 tags/elements
- Just a starting point
 - Looking for feedback and/or refinements

Project Areas – Peer Review - Schema



Project Areas – Peer Review – Sample XML

```
<review-group>
<review>
<contrib-group>
<contrib contrib-type="editor">
<contrib-id contrib-id-type="orcid" authenticated="true">http://orcid.org/0000-0002-1825-0111
</contrib-id>
<name name-style="western">
<surname>Robers</surname>
<given-names>Sally</given-names>
</name>
<address>...</address>
<email>ssmith@google.com</email>
<role>editor</role>
</contrib>
</contrib-group>

<date date-type="assigned" iso-8601-date="1999-01-29">
<year>1999</year><month>1</month><day>29</day></date>
<date date-type="completed" iso-8601-date="1999-01-29">
<year>1999</year><month>1</month><day>29</day></date>
<date date-type="due" iso-8601-date="1999-01-29">
<year>1999</year><month>1</month><day>29</day></date>

<review-item-group>
<review-item review-item-type="rating">
<review-item-question sequence-number="1">
<title>Scientifically Novel</title>
<alt-title>Novel<short-title>
<text>On a scale from 1 to 10, how "novel" is the idea presented in this manuscript?</text>
</review-item-question>
<review-item-response>
<rating>5</rating>
</review-item-response>
</review-item>
```

```
<review-item review-item-type="single-choice">
<review-item-question sequence-number="2">
<title>Best adjective</title>
<alt-title>Adjective<short-title>
<text>What adjective best describes this manuscript?</text>
</review-item-question>
<review-item-response>
<rating>9</rating>
<text>Great<text>
</review-item-response>
</review-item>

<review-item review-item-type="comment">
<review-item-question sequence-number="3">
<title>Comments to the Editor</title>
<short-title>Comments to the Editor<short-title>
<text>Please provide comments to the editor about the scientific merit or
uniqueness of the idea presented in this manuscript?</text>
</review-item-question>
<review-item-response is-confidential="yes">
<text>The ideas presented in this manuscript are mind blowing. It should get
published right away.</text>
</review-item-response>
</review-item>

<review-item review-item-type="annotated-file">
<title>Red lines and annotations to the authors manuscript</title>
<ext-link>redlines.doc</ext-link>
</review-item>
</review-item-group>
</review>
</review-group>
```

Project Areas – Transfer Information

- **Goal:** To be able to pass **transfer information** from system to system
 - Source Information
 - Service Provider
 - Contact Information
 - Publication Type, Title, Acronym
 - Destination Information
 - Service Provider
 - Contact Information
 - Publication Type, Title, Acronym
 - Security Information
 - Authentication Code
 - Processing Instructions
- **Transfer.xml** (new DTD)

Project Areas – Transfer – Sample XML

```
<transfer>
  <source>
    <service-provider>
      <name>eJournalPress</name>
      <contact role="Project Manager">
        <name>
          <surname>Smith</surname>
          <given-names>John</given-names>
        </name>
        <email>jsmith@ejournalpress.com</email>
        <phone>301-555-1212</phone>
      </contact>
    </service-provider>
    <publication type="journal">
      <title>The Journal of the American Medical Association</title>
      <acronym>JAMA</acronym>
      <contact role="Managing Editor">
        <name>
          <surname>Smith</surname>
          <given-names>Sally</given-names>
        </name>
        <email>ssmith@jama.com</email>
        <phone>301-555-1212</phone>
      </contact>
    </publication>
  </source>
```

```
<destination>
  <service-provider>
    <name>Highwire</name>
    <contact role="Project Manager">
      <name>
        <surname>Rogers</surname>
        <given-names>John</given-names>
      </name>
      <email>jrogers@highwire.com</email>
      <phone>444-555-1212</phone>
    </contact>
  </service-provider>
  <publication type="preprint-server">
    <title>BioArxiv</title>
    <acronym>BioArxiv</acronym>
    <contact role="Managing Editor">
      <name>
        <surname>Rogers</surname>
        <given-names>Sally</given-names>
      </name>
      <email>srogers@bioarxiv.com</email>
      <phone>301-555-1212</phone>
    </contact>
  </publication>
  <security>
    <authentication-code>abdasa-13123-abae</authentication-code>
  </security>
</destination>
<processing-instructions>
  <instruction sequence="1">Verify XML First</instruction>
  <instruction sequence="2">Load XML</instruction>
  <comments>Free form comments</comments>
</processing-instructions>
</transfer>
```


Project Areas - Identity

- **Goal:** Unique, **consistent identity** across systems
- Unique identifier
 - When manuscripts are passed from system to system
 - Article number, but not journal specific
- DOI was considered
 - Need for something without a DOI “prefix” or implied source
- Universally unique identifier - UUID
 - Type 1
 - Date, time, MAC Address, random number
 - d6bf8782-30f7-4cd7-82a8-94ff62352ac4
 - Guarantees no collisions across vendors
 - Support found in many standard coding libraries

Project Areas - Transmission

- **Goal:** Simple, consistent way to **send the information** across systems
- FTP until January 2018 / SFTP (FTP over SSH) in 2018
 - Phase 1
 - Asynchronous
- Potential future development – move to API (REST, SWORD)
 - Provide status message to sender
 - Synchronous
 - Influenced by specific use cases

Action Items & Timeline

2017

Q 1&2

- Present to organizations and communities of interest
 - JATS-Con, SSP, ...
 - Authoring platforms, composition vendors, repositories, preprint servers...
 - Gather input from these interested parties
 - Input via manuscriptexchange.org
 - Expand the Working Group
 - Looking to include diverse set of stakeholders
 - Interested? Look at manuscriptexchange.org or email info@manuscriptexchange.org
-

Q 3&4

- Host Informational Webinars
 - General and Technical webinar ("you are here")
 - Build trial/pilot/reference implementation
 - Refine approach and documentation
 - Implementation website coming soon at: www.manuscriptexchange.org/how-to
 - NISO application, if appropriate
 - Will need community volunteers to participate in that process
-



2018

- Vendor and Supplier Implementations

Want to Participate?

- Contact us:
 - Comment on documents/plans, volunteer
 - Sign up for our mailing list to keep apprised of progress

info@manuscriptexchange.org

- Additional Information on our web page:

www.manuscriptexchange.org