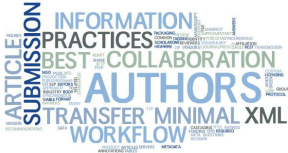


MECA: Manuscript Exchange Common Approach



Tony Alves, Aries Systems Corporation

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 and can also solve some additional workflow problems!
- **All we need is for a group of competitors to collaborate!**



- A group of vendors and publishers
 - Aries: Editorial Manager
 - Clarivate Analytics: Scholar One
 - eJournalPress: eJPress
 - HighWire: BenchPress
 - PLOS
- 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, JATScan



Agenda

- Background (already done)
- Principles
- Use Cases
- Project Areas
- Action Items & Timeline

Principles

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



Use Cases – Manuscript Transfer 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 to ...**
 - Submission System to Various Services (secondary)

Project Areas

- ✓ Vocabulary
- ✓ Packaging
- ✓ Manifest
- ✓ Transfer Metadata
- ✓ Submission Metadata
- ✓ Review Metadata
- ✓ Identity
- ✓ Transmission



Project Area – 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'
 - Terms like 'BITS', 'Interoperability', 'Mime Type'
- Can be updated over time

Project Area - 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 Area – 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)

Transfer Information - DTD

```

<!ELEMENT transfer (source?, destination?, security?, processing-instructions?)>
<!ATTLIST transfer xmlns CDATA #REQUIRED>
<!ELEMENT source (service-provider?, contact?)>
<!ELEMENT service-provider (name?, contact?)>
<!ELEMENT contact (contact-name?, email?, phone?)>
<!ATTLIST contact xmlns CDATA #REQUIRED>
<!ELEMENT contact-name (surname?, given-name?)>
<!ELEMENT surname #CDATA>
<!ELEMENT given-name #CDATA>
<!ELEMENT email #CDATA>
<!ELEMENT phone #CDATA>
<!ELEMENT name #CDATA>
<!ELEMENT destination (service-provider?, contact?, publication?, security?)>
<!ELEMENT publication (title?, acronym?, contact?)>
<!ATTLIST publication type CDATA #REQUIRED>
<!ELEMENT title #CDATA>
<!ELEMENT acronym #CDATA>
<!ELEMENT security (authentication-code?)>
<!ELEMENT authentication-code #CDATA>
<!ELEMENT processing-instructions (instruction?, comment?)>
<!ELEMENT instruction #CDATA>
<!ATTLIST instruction sequence CDATA #REQUIRED>
<!ELEMENT comment #CDATA>

```

Transfer Information - XML

<pre> <?DOCTYPE transfer SYSTEM "transfer.dtd"> <transfer xmlns="http://www.org/transfer" version="1.0"> <source> <service-provider> <provider-name>JournalPress</provider-name> <contact role="Project Manager"> <contact-name> <surname>Smith</surname> <given-name>John</given-name> </contact-name> <email>john.smith@journalpress.com</email> <phone>301-555-1212</phone> </contact> </service-provider> <destination type="journal"> <title>The Journal of the American Medical Association</title> <acronym>JAMA</acronym> <contact role="Managing Editor"> <contact-name> <surname>Smith</surname> <given-name>John</given-name> </contact-name> <email>john.smith@jama.com</email> <phone>301-555-1212</phone> </contact> </publication> </source> </pre>	<pre> <destination> <service-provider> <provider-name>HighWire</provider-name> <contact role="Project Manager"> <contact-name> <surname>Reger</surname> <given-name>John</given-name> </contact-name> <email>john.reger@highwire.com</email> <phone>444-555-1212</phone> </contact> </service-provider> <publication type="print-server"> <title>@jama</title> <acronym>@jama</acronym> <contact role="Managing Editor"> <contact-name> <surname>Reger</surname> <given-name>John</given-name> </contact-name> <email>john.reger@highwire.com</email> <phone>301-555-1212</phone> </contact> </publication> <security> <authentication-code>abdas-a13123-abae</authentication-code> </security> <processing-instructions> <instruction sequence="1">Send XML File</instruction> <instruction sequence="2">Load XML</instruction> <comment>File from comments</comment> </processing-instructions> </transfer> </pre>
--	--

Project Area - 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 Area - Transmission

- **Goal:** Simple, consistent way to **send the information** across systems
- 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

- | | |
|-------------|---|
| 2018 | <ul style="list-style-type: none"> • Expand the Working Group <ul style="list-style-type: none"> ○ Looking to include diverse set of stakeholders ○ Interested? Look at manuscriptexchange.org or email info@manuscriptexchange.org • NISO Working Group • Will need community volunteers to participate in that process • Vendor and Supplier Implementations |
| 2017 | <ul style="list-style-type: none"> • Present to organizations and communities of interest <ul style="list-style-type: none"> ○ JATS-Con, CASRAI, SSP, OASPA, Force11, STM, ISMTE, CSE, ALPSP... ○ Authoring platforms, composition vendors, repositories, preprint servers... • Gather input from these interested parties <ul style="list-style-type: none"> ○ Input via manuscriptexchange.org • Host Informational Webinars <ul style="list-style-type: none"> ○ General and Technical sessions planned for July/August • Build trial/pilot/reference implementation <ul style="list-style-type: none"> ○ Refine approach and documentation |



Interested in Participating?

- Additional Information on our web page:
www.manuscriptexchange.org
- Contact us – comment on documents/plans, volunteer:
info@manuscriptexchange.org

