







# Emerging Trends in STM Publishing: A Few Observations

Changes in the way articles are written

- Authorship by multi-disciplinary groups
- Articles vs. database entries
- Free text mixed with links, terms and identifiers

Changes in the way content is consumed

- Non-linear reading habits
- Content is searched or mined rather than read
  - Machine vs. human readers
  - Information/Knowledge Extraction





# Current challenges in STM Publishing

Increased volume of submissions Pressure to reduce:

- Time to publication
- Cost to publish
   Maintain quality and reputation of publications
   Keep readers engaged with content

Technology has solved some of the problems, but...





# The hard problems are the social problems

# An army of volunteers

- Provide the required domain expertise
- Expensive
- In short supply and high demand
- Outside of publishers' direct control

Unlikely we can replace them, but can we build tools that make them more effective and productive?





# A simple proposition

The promise of semantic technology

- Tend to be focused on readers' perceived need
- Difficult to assess value

What happens if we shift focus to the editorial workflow?





# Who are we?

A Michigan State University spin-off company.

A team of software developers, knowledge engineers and domain experts with a proven record.

Focused on applying a novel semantic technology to solve real problems for authors, editors, reviewers, readers and publishers.





# What is Hidden Metrix™

A novel method of extracting and repurposing knowledge from document collections.

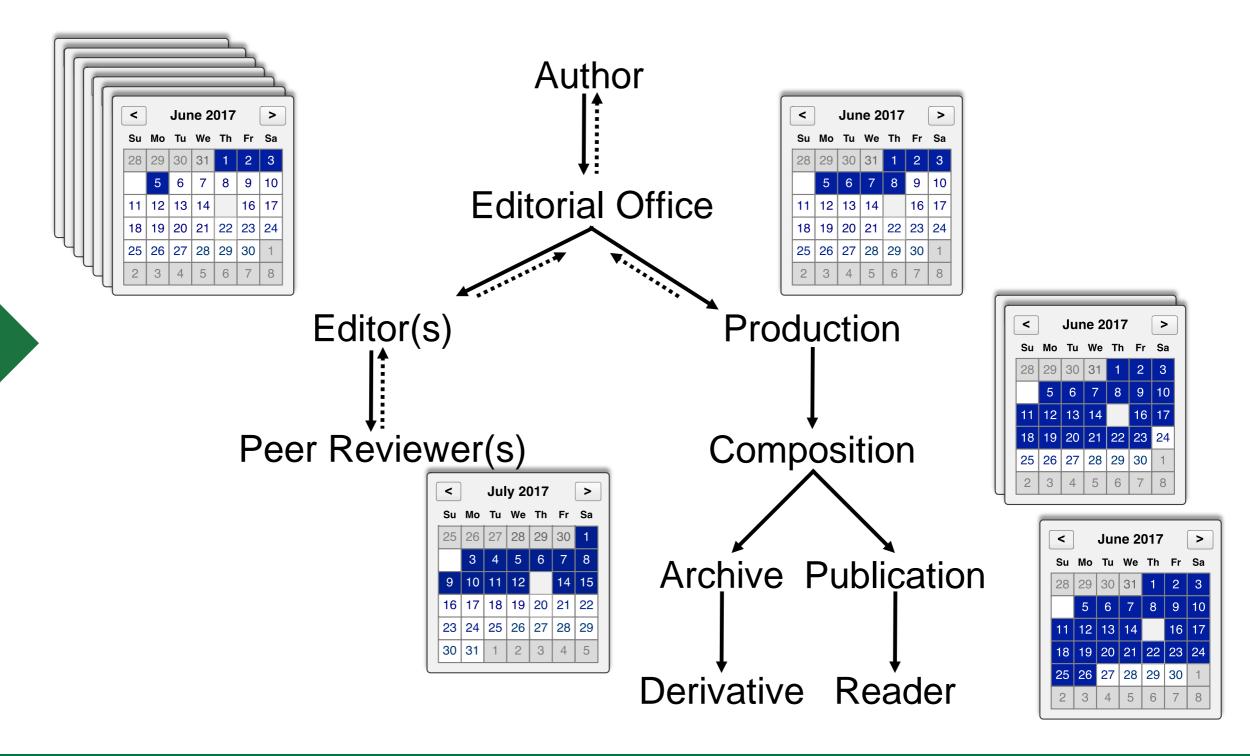
Based on the premise that every document has a "semiotic fingerprint" that consists of a pattern of words.

We combine that domain knowledge with semantic methods to solve practical problems in publishing.





# **Editorial Workflow for STM Publications**







Pre-submission



Editorial

Production

Publication

Post-publication

# Challenges

Adherence to style sheet

- Content flow and references
- Correct nomenclature/terminology
- Accuracy of linked content Document/file formats

### NamesforLife Solutions

#### Validation service

Verifies document structure against

publication of the publication o Scribe anno employs a combination of Named **B** 

Identifier

professionally curated and domain-specific resources.

Summar

- Automatic document conversion
- **Embed semantic links**
- Author feedback





Pre-submission

Submission

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Production

**Publication** 

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# Challenges

Validation against style sheet Completeness of submission

- Author metadata
- Graphics format and quality
- Assignment to handling editor
- Initial communication with author

### NamesforLife Solutions

Validation service and Scribe service are offered as:

- Hosted web service
- REST API
- Easily customized to meet publisher-specific needs





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# Challenges

#### Initial evaluation

- Quality/scope
- Factual review

#### Peer-review

- Reviewer selection
- Evaluation/consolidation of reviews
   Instructions to author

### NamesforLife Solutions

#### Extended Scribe service

- Datailad fact chacks
- Recommendations include supporting
   Revi data and contact information to
- simplify crafting a meaningful
  - p invitation to potential reviewers.
- Avoids commets of interest





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# Challenges

**Document conversion** 

- Manuscript to XML
- Validation of XML (schema/DTD)
- Reference linking
- Semantic linking

# NamesforLife Solutions

- Document conversion/validation integrated at each step
- Flags technical errors in content
- Annotations are reversible
- No side-effects on document
- Compositor specific features
- Easily integrated into existing platforms





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# Challenges

Final conversion

HTML, PDF, print
 Content linking and hosting
 Deposit into archives
 Limited exposure of new content

### NamesforLife Solutions

- Provides deep semantic linking to authoritative resources
- Increases exposure of content to broader audience via semantic citation paths
- Avoids link-rot





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# Challenges

- Limited "shelf-life" of content
- Limited ability to repurpose back content
- Use tracking
- Limited reader engagement

### NamesforLife Solutions

- Content exposed to broaden audience via semantic citation paths
- NamesforLife Guide delivers rich information to readers while retaining them on your content
- A novel way to refresh content and assess use and impact over time





# Our design philosophy

Hidden Metrix<sup>™</sup> was built from the ground up to be:

- Generally applicable
- Integrated at multiple points of existing workflows
- Standards compliant
- Play well with other systems (no side effects)

Currently deployed in several publishing environments





# Do these problems sound familiar?

If so, stop by and see us in stand 3B36.

We want to talk with you about how you can solve your content production problems with our tools and services.

