



INTERNATIONAL ASSOCIATION OF SCIENTIFIC, TECHNICAL & MEDICAL PUBLISHERS

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# **STM Publishing Industry: 2012 Technology Trend Watch**

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Chair, STM Future Labs Committee

Chief Technology Officer, EVP, Nature Publishing Group

STM Innovations Seminar

May 2012

# 2012 Technology Trend Watch by STM Future Lab Committee

## Context

15 members of the STM Future Lab Committee explored the main Technology Trends they think will really impact STM publishing in the next three years using Delphi technique.

-- Future Lab Meeting, London,  
1 December 2011

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# Present at the meeting on 1 December 2011, London

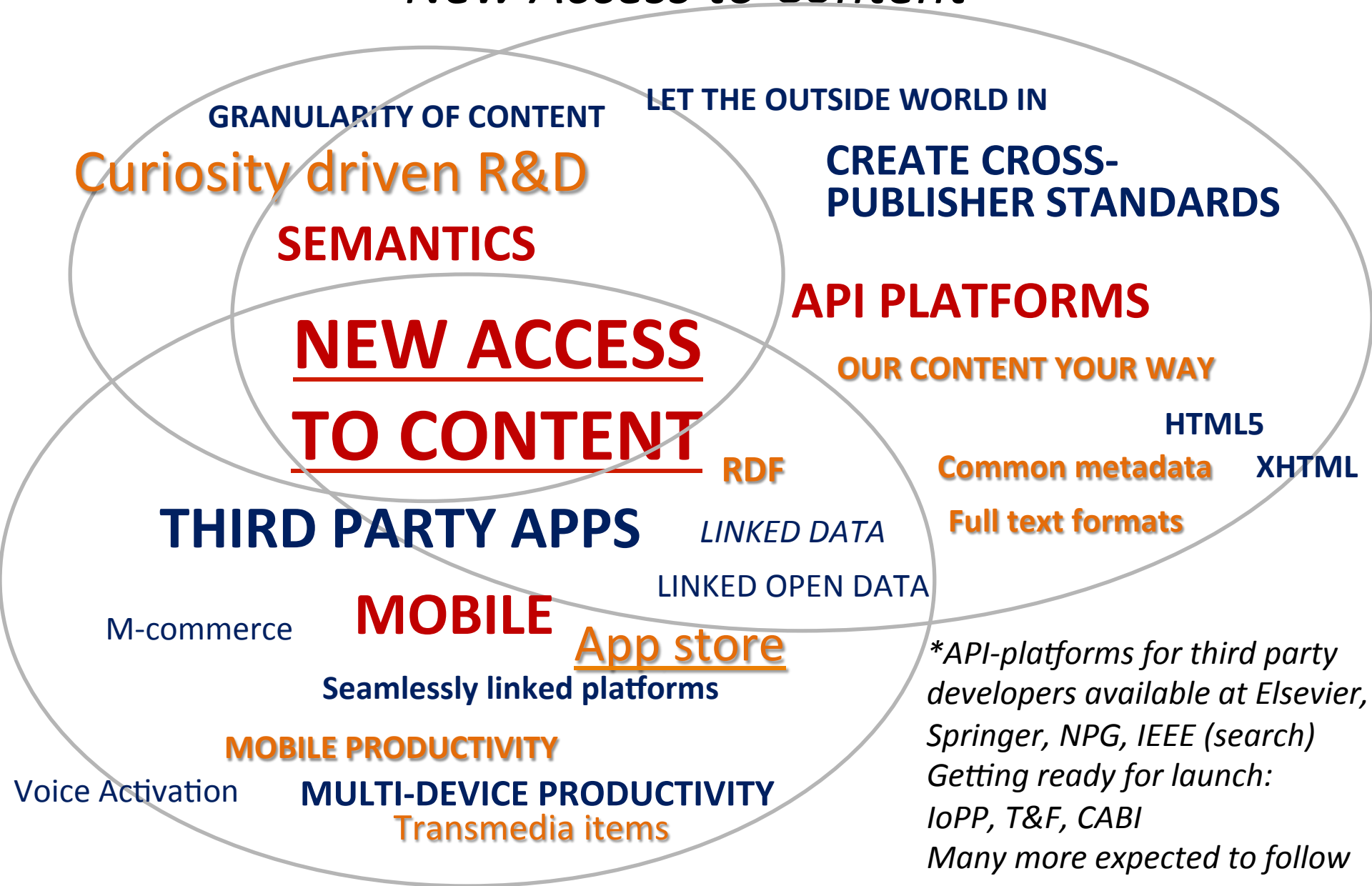
- [IJsbrand Jan Aalbersberg, Elsevier](#)
- [Gerry Grenier, Institute of Electrical and Electronics Engineers \(IEEE\)](#)
- [Gillian Howcroft, Taylor & Francis](#)
- [Terry Hulbert, AIP](#)
- [Thomas Mager, Springer](#)
- [David Martinsen, American Chemical Society \(ACS\)](#)
- [Howard Ratner, Nature Publishing Group](#)
- [Daniel Schiff, Thieme Publishers](#)
- [John Sack, Highwire Press](#)
- [John Shaw, SAGE](#)
- [Eefke Smit, STM](#)
- [David Smith, CABI](#)
- [Craig Van Dyck, John Wiley & Sons](#)
- [James Walker, IOPP](#)
- Anita de Waard, Elsevier, Director Disruptive Technology (guest speaker)

Other members: Kent Anderson (JJBS), Geoffrey Bilder (Crossref), Richard Kidd (RSC), Dave Kochalko (Thomson-Reuters), Timothy Murray (CUP), Pam Sutherland (OUP)

The logo for STM (Science and Technology Metrics) is displayed in the bottom right corner. It consists of the lowercase letters 'stm' in a bold, italicized, serif font, colored in a dark red or maroon shade.

# Important Topic #1: API Platforms\*

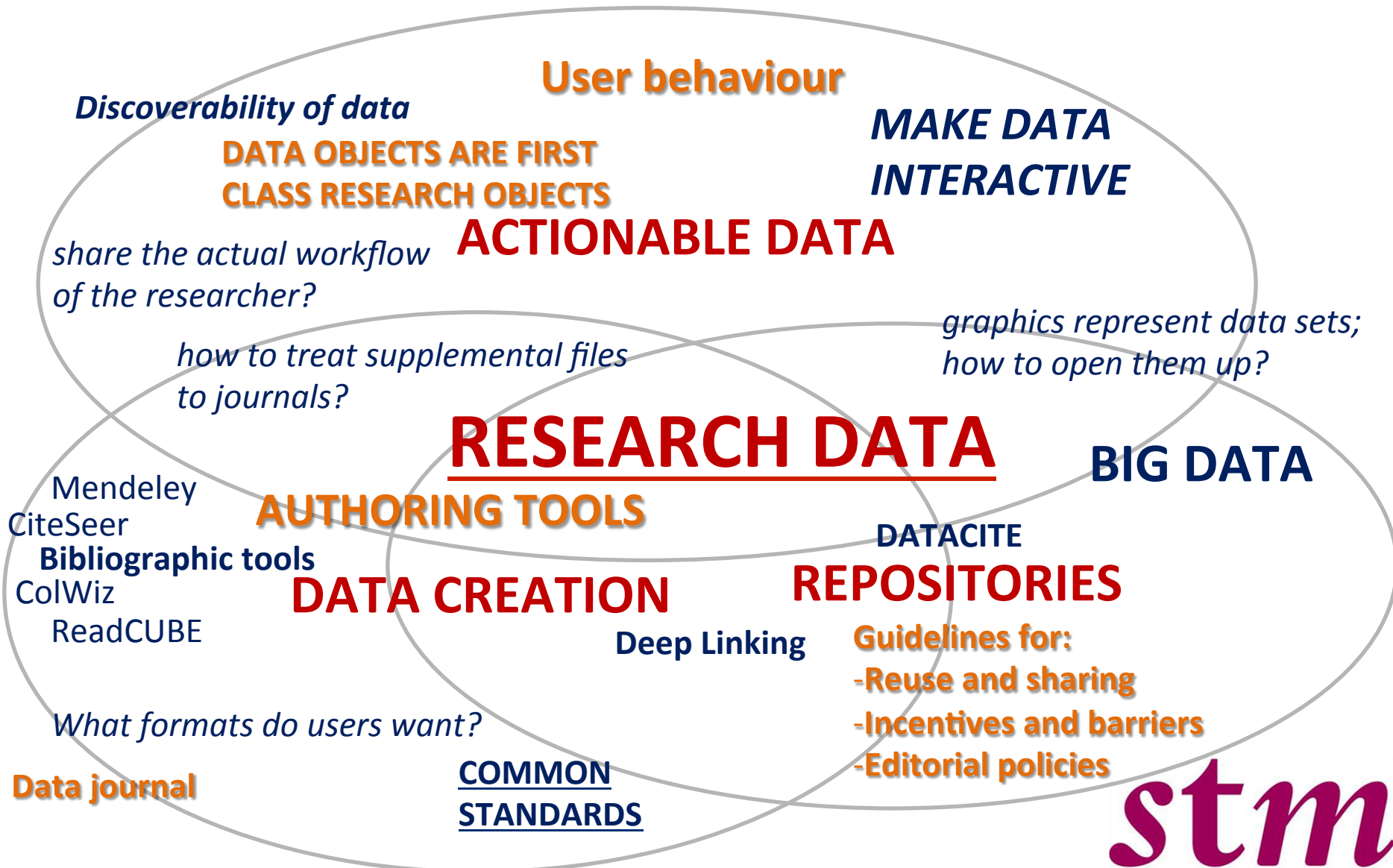
## *New Access to Content*



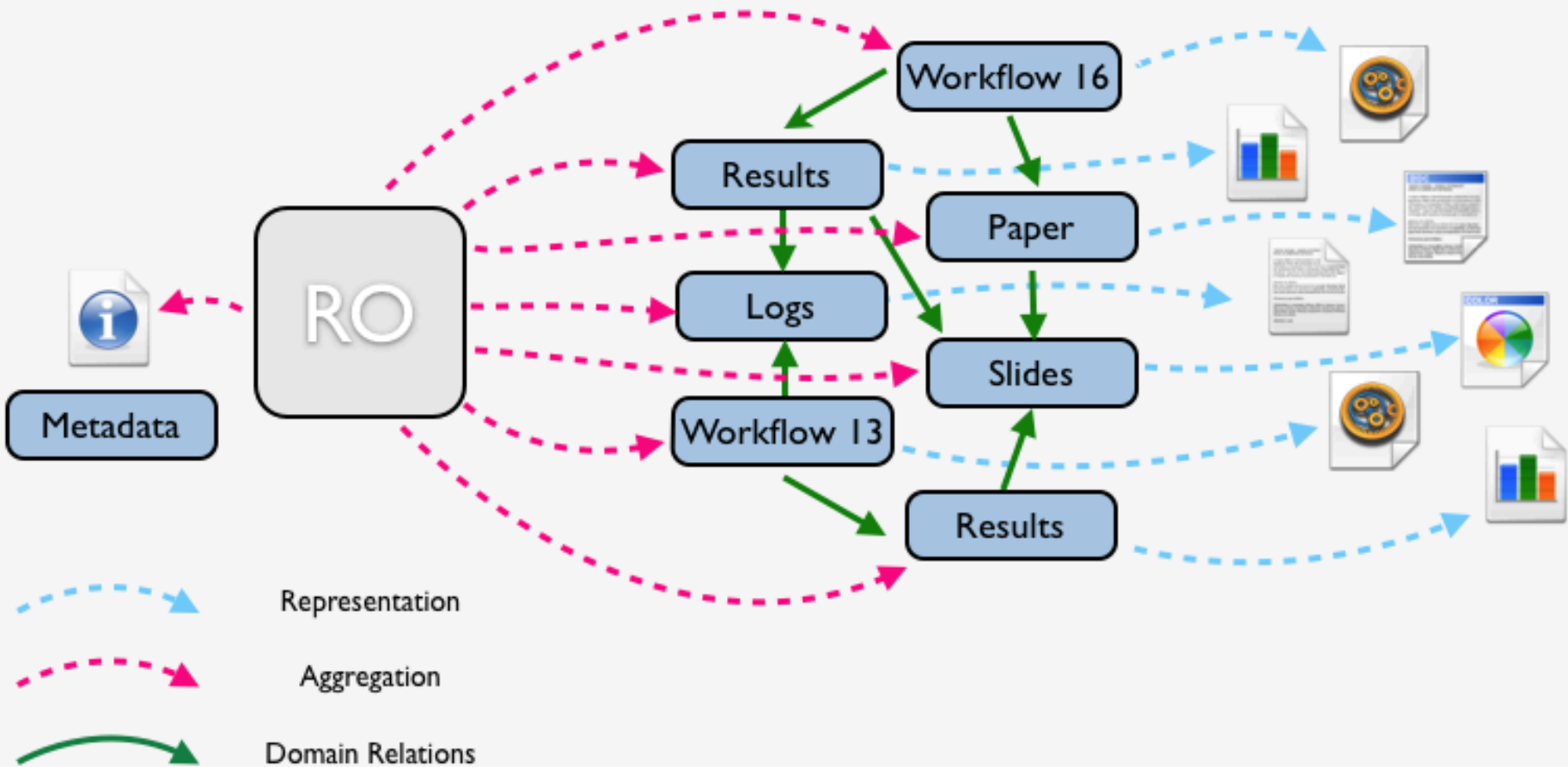
*\*API-platforms for third party developers available at Elsevier, Springer, NPG, IEEE (search) Getting ready for launch: IoPP, T&F, CABI Many more expected to follow*

# Important Topic #2: Research Data

## *New Presentations for Re-use*



# Research Objects?



Credit: S. Bechhofer et al., "Research Objects: Towards Exchange and Reuse of Digital Knowledge," 2010

# Important Topic # 3: Identity Management: *Authentication versus Discovery*

## KNOWLEDGE DISCOVERY

author resolver

Contributor IDs

**ORCID** DISAMBIGUATION

MANY NEW IDs EMERGING

ORGANISATION ASSERTIONS

ISNI inSPIRE RePeC VIVO

CROWD SOURCED SELF-ASSERTIONS

## IDENTITY

*How to implement it?*

Single Sign-on

SAML

Google and Facebook-like services

## ACCESS AUTHENTICATION

*How to generate better user info?*

COMMERCE PURPOSES

Across platforms

WHO OWNS THE USAGE DATA?

Remote access within institutions

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# Important topic #4: New User Behaviour: *Performance Metrics for Increased Productivity*

*value for society?*

Crowd analysis

*real scientific impact?*

**PERFORMANCE**

researchers librarians

*TOOLS FOR DAILY WORKFLOW*

**RESEARCHER PRODUCTIVITY**

Linked to researcher IDs

De-emphasizing Impact Factor

**PRESSURE ON USER METRICS**

New Metrics emerging PLOS DOWNLOADS UKSG ALTMETRICS

COUNTER as Gold Standard,  
hampers innovation

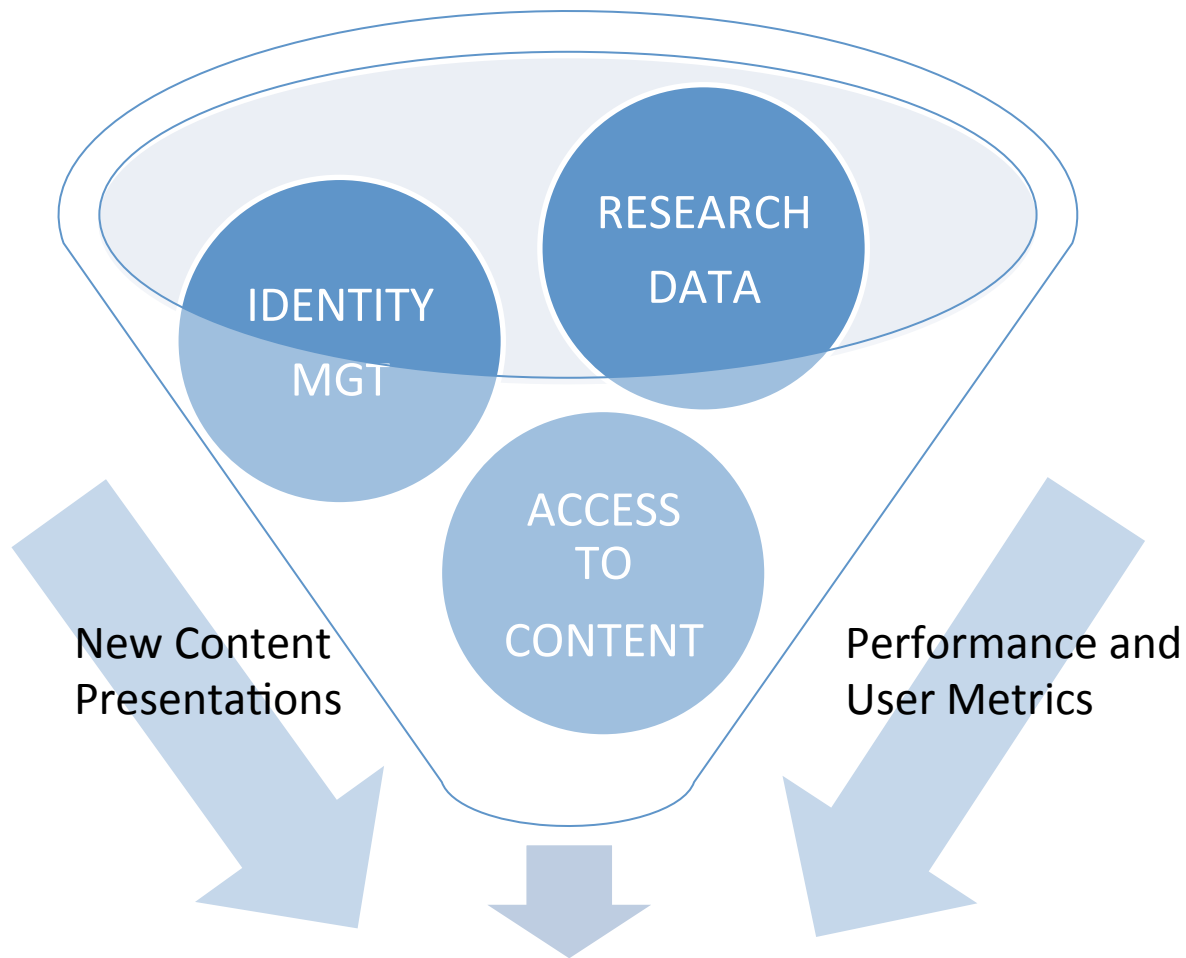
Performance Metrics

*can this replace  
peer review?*

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# From Discoverability to Actionability of Content



***New User Behaviour &  
Increased Research Productivity***

***stm***

# Overarching Trend:

*from Discoverability to Actionability of Content*

New performance metrics

Researcher IDs

researchers

*TOOLS FOR DAILY WORKFLOW*

Crowd analysis

ZOONIVERSE

*real scientific impact?*

**PRODUCTIVITY TOOLS**

librarians

*value for society?*

Make content interactive

**ACTIONABILITY of CONTENT**

INTERACTIVE  
DATA

Semantic Enrichment

COMMON  
STANDARDS  
AND  
ONTOLOGIES

**API PLATFORMS**

*ARTICLE OF THE FUTURE*

**CONTENT  
STANDARDS**

**DATA AND  
TEXT MINING**

NEW PACKAGING

*The Demise of the PDF ?*

*impact on authors, editors, production?*

*stm*

**Questions ?**

**Suggestions ?**

**Want to discuss this further with your  
colleagues ?**

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