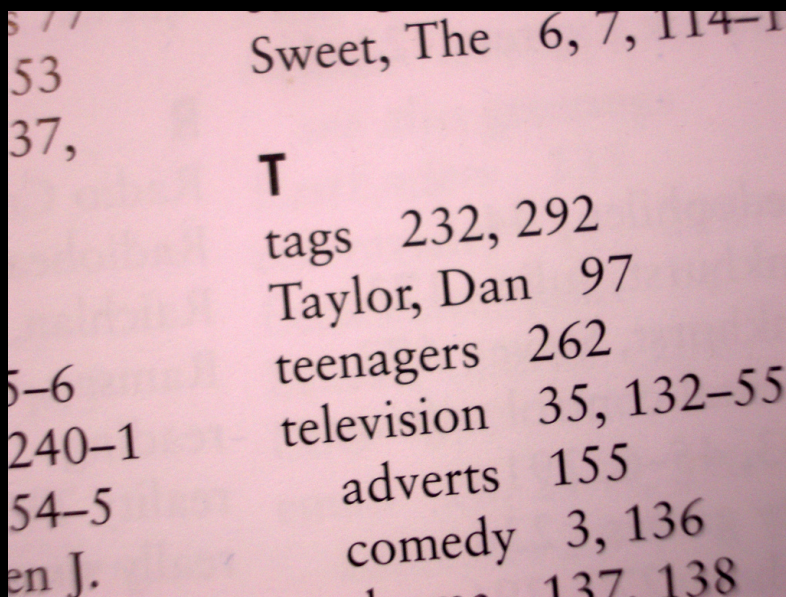# Standards and Data Citation
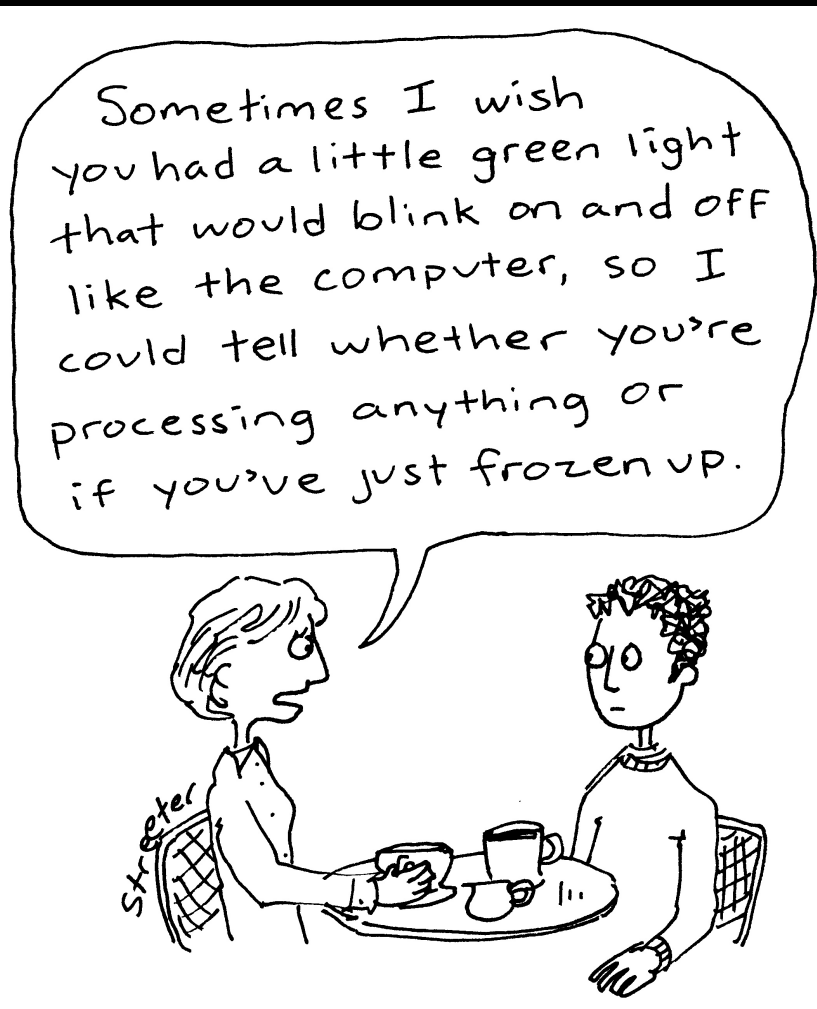
Todd Carpenter
Managing Director, NISO
Data Attribution and Citation Workshop, August 2011

Standards are familiar, even if you don't notice

Data Attribution and Citation Workshop

Machines don't talk like people do

Data Attribution and Citation Workshop

Machines don't talk like people do

A linked data citation

<Ref>
 <Refstyle> <ISNI/ORCID>
  <Affliation-I2>
   <ISBN/ISSN> <ISCI>
    <DataSchema/Ontology> <DOI>
     <ACCESS DATE>
</Ref>

We all want our own

Data Attribution and Citation Workshop

What are data citation standards?

- Identifying the thing being referenced

  Discovering it

  Locating it

  Describing it

  Sharing it

  Preserving it

  Interoperating with it

Are they more alike or different?

What are the things we all care about?

- Disambiguation of the item

- Location of the item (either physical or digital)

- Attribution of the author

- Reuse

- Preservation

Are they more different than alike?

- Ontologies/terminologies
- Privacy issues
- Rights/IP issues
- Data size & complexity
- Refresh pace/Update frequency

http://imgs.xkcd.com/comics/standards.png/

Data Attribution and Citation Workshop
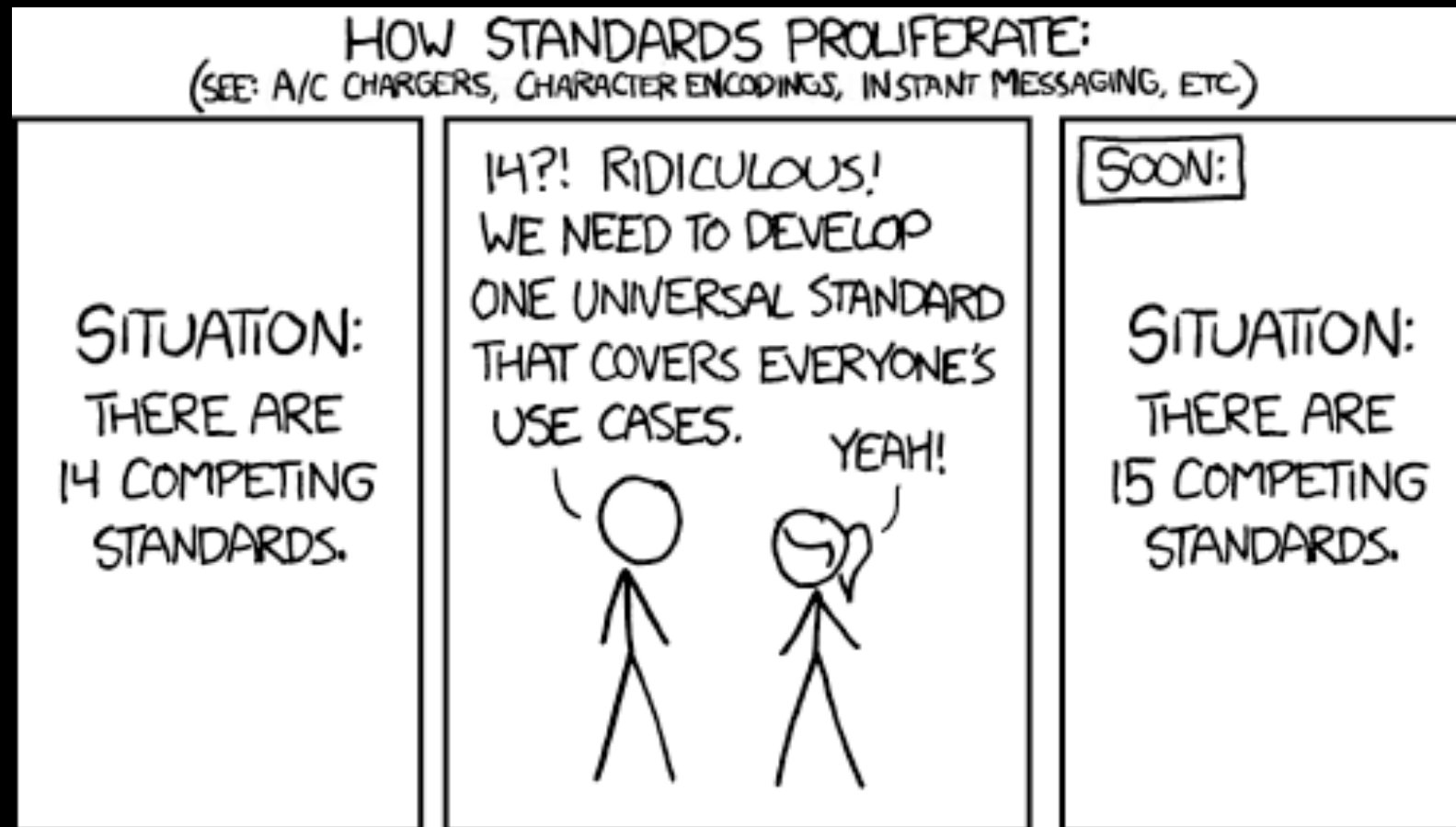
The point at which most standards fail is not prior to consensus

It is in....

Adoption

(or rather, in its absence)

The lifecycle of standards

Standards Development Lifecycle
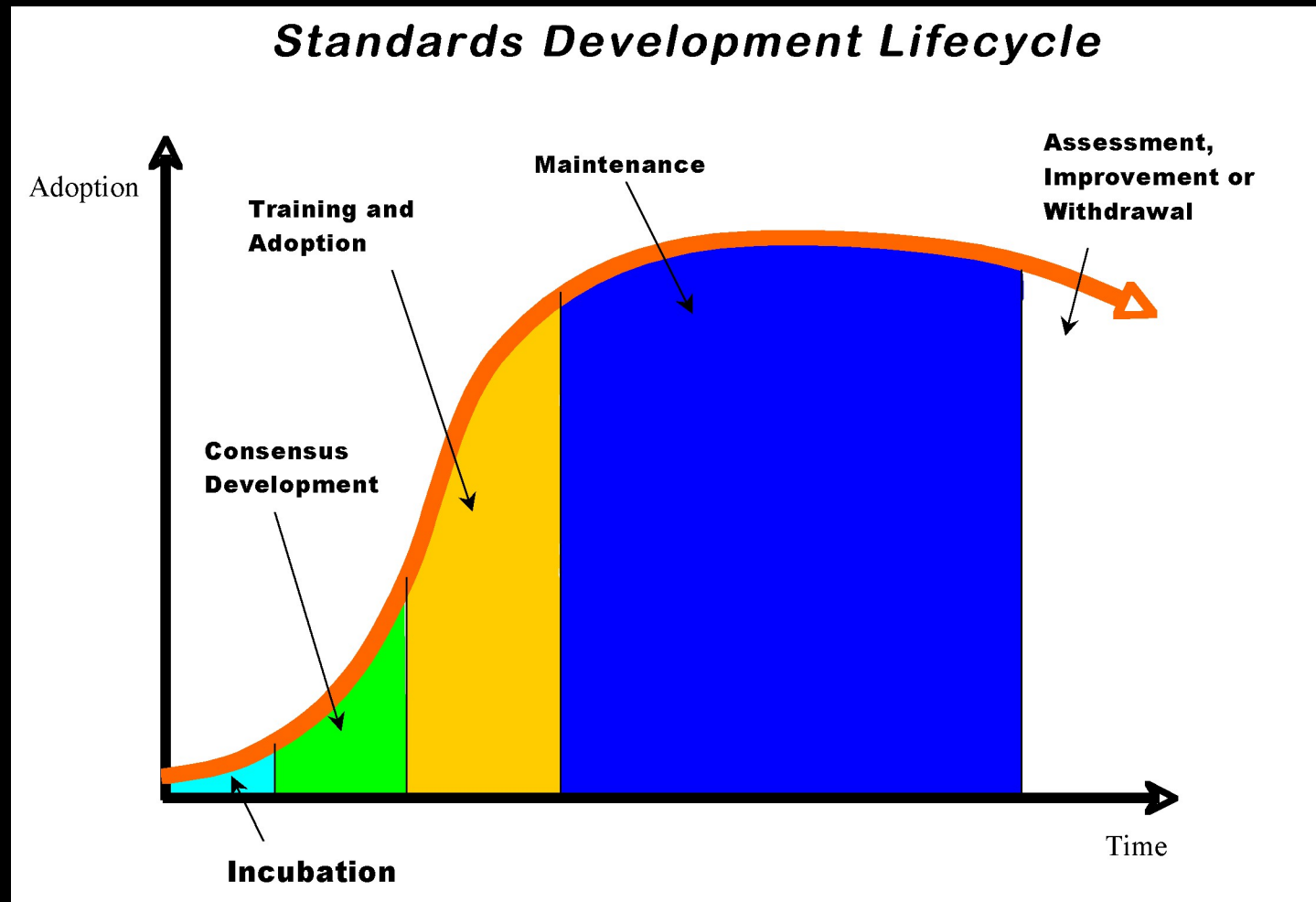
Who is important in adoption?

- Researchers (Data Producers/Authors)

- Editors & Reviewers

- Publishers

- P&T Committees / Administrators

- Funding organizations

- Researchers (Data Consumers)

- Repositories (Repository managers)

How do we ensure what we have done gets adopted?

Thank you!

Todd Carpenter, Managing Director

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Standards in different flavors

NISO develops "Capital S" Standards
- Officially designated Z39.XX standards or at ISO
- Accredited by ANSI or ISO
- De Jure "Force of Law" standards (national/international)

NISO also develops lower-threshold consensus projects: Recommended Practices
- Simpler process, faster to develop
- When it's too early to formally standardize
- Helps to shape industry practice

Supplemental Materials Project

Goal is to focus on the publication structures necessary for communicating supplemental materials as part of the publications process

NOT Addressing every and all data questions

Scope of the project

	Within the article		Outside the article
Importance Content type	1. **Primary**	2. **Secondary**	3. **Cited**
A. **Text, figures, tables**	Traditional article	In scope	Practices exist
B. **Multimedia, chemical, crystal, and protein structures, computer algorithms, executables, etc.**	Practices exist. Our clarification may be needed	In scope	Practices exist. Our clarification may be needed
C. **Data sets**	In scope		Practices exist

Printable — A row
Beyond the printed page — B, C rows

# Content that users want & need?

- The core questions:
  - What is critical to understanding?
  - What is supplemental to understanding?
  - What is ancillary to understanding?

The form of the content, i.e., text, video, audio, data, applications, is <u>NOT</u> the key to whether something is supplemental

Links: Standards organizations

- NISO = www.niso.org (OpenURL, MARC, DublinCore, ISSN)
- W3C = www.w3.org (HTML, CSS, HTTP, MATHML, OWL, SKOS)
- OASIS = www.oasis-open.org (DITA, DOCBOOK, SAML)
- EDITEUR = www.editeur.org (ONIX, ICEDIS)
- LC = www.loc.gov/standards (MARC, MODS, METS PREMIS)
- IDPF = www.idpf.org (EPUB)
- IDEAlliance = www.idealliance.org   (PRISM, PROSE, G7)
- OAI = www.openarchives.org (PMH, ORE, Memento)
- DCMI = www.dublincore.org (DCMI)
- ISO = www.iso.org or ISO TC 46 (ISBN, ISSN, DOI, ISTC)
- CDISC = www.cdisc.org/standards (ADAM, BRIG CDASH)

Information Standards Quarterly (Open Access)
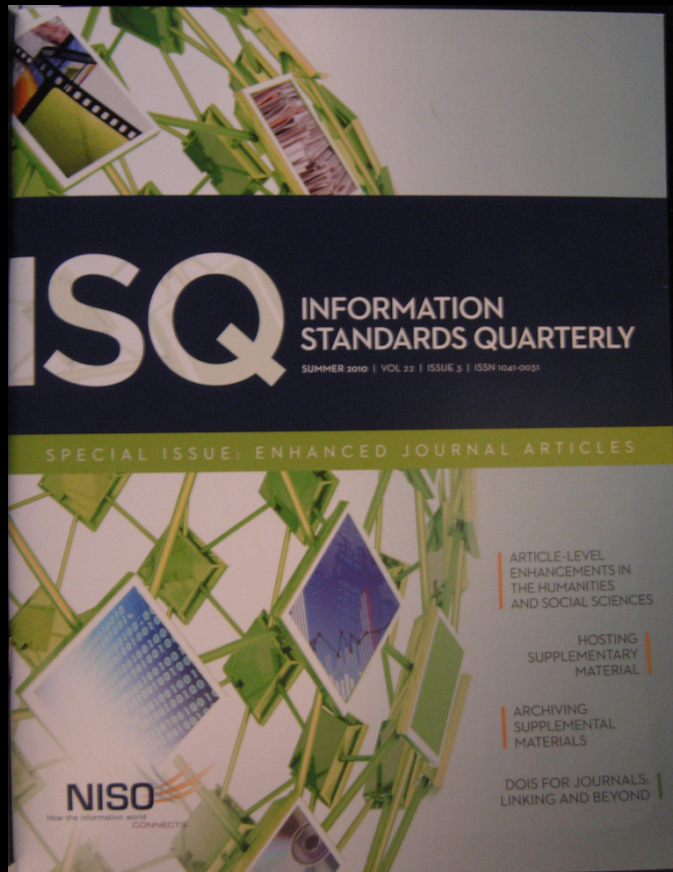
Summer 2010 Issue of ISQ

Special issue on Enhanced Journal Articles

Article-level Enhancements in the Humanities and Social Sciences

Hosting Supplemental Materials

Archiving Supplemental Materials

DOIs - Linking and Beyond

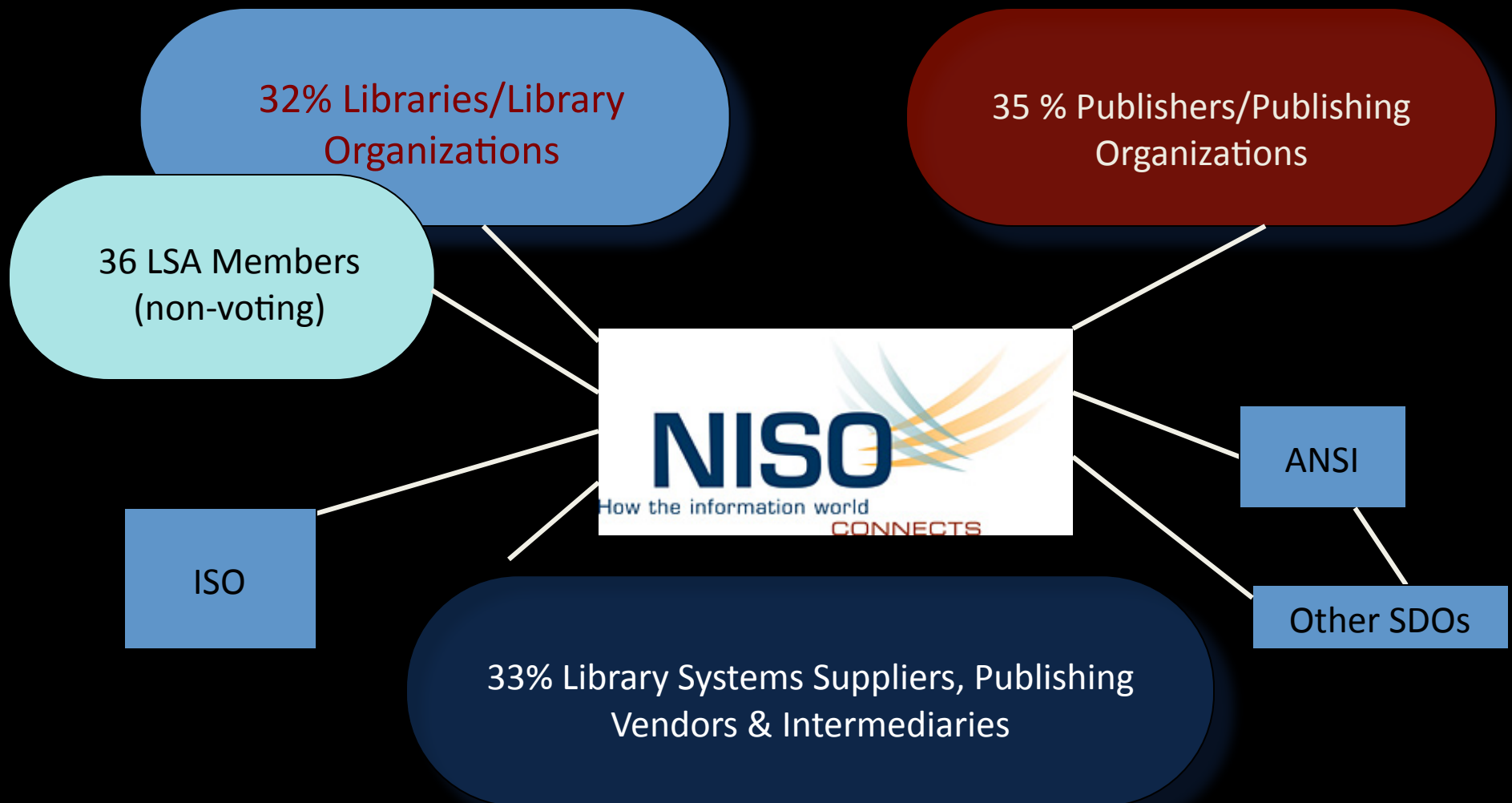*Supplemental Materials Survey*

Report on NISO/NFAIS project

ALSO OTHER RELATED PROJECTS

DOI International Standardization

Preservation Practices

Dublin Core Metadata

National Information Standards Organization (NISO)

32% Libraries/Library Organizations

35 % Publishers/Publishing Organizations

36 LSA Members (non-voting)

ANSI

ISO

Other SDOs

33% Library Systems Suppliers, Publishing Vendors & Intermediaries

Data Attribution and Citation Workshop

NISO's part of ISO Organizational Structure

Technical Committee (TC) 46

Information & Documentation

Subcommittees (SC):

4 – Systems Interoperability

8 – Performance Measurement

9 – Identification & Description

11 – Records Management

NISO manages the Secretariat of ISO TC 46, SC 9

Moving a NISO project forward

Within NISO, the process is fairly easy:

Idea is generated → Submission of proposal idea

Vetted by a leadership committee

Approved by membership

Working group organized → Addresses issue

Draft is released for public comment/review

Leadership committee vets

Membership votes to approve/amend

Publication

Promotion/training/adoption focus

Periodic review, maintenance, updating

Average timeline (launch to publication) now 24-30 months