PUBLISHING AND PRESERVING DATA

STM Annual U.S. Spring Conference 2014
Enabling New Forms of Scholarly Publishing

- Scholars continue to expand the role of data in their research

- Professionals in data curation, publishing, and preservation must develop expertise to support this work as it moves from research to formal publication

- The goal of this project is to enable innovation in scholarly communication and digital publishing
Changing Role of Data in Publications

• Increasing expectations for connections between publications and underlying data

• Importance of collaboration among publishers, data centers, and preservation services to build tools to serve this need

• Goal is to preserve not just publications and data, but the relationships among them
Changing Definition of “Article”

• Primary unit of scholarly communication is becoming a multi-part, distributed object

• Need to maintain the connections among the various components and locations

• Increasingly elaborate relationship information will be necessary going forward
Tool Prototype

- Graph-based view of connections among publications, data, agents, and their properties
- Many-to-many relationships rather than one-to-one view of current systems
- Tracking and preservation of these connections through the scholarly communications cycle
Research Partnership

• Data Conservancy: Expertise in management of large data archives from multiple disciplines

• IEEE: Expertise in management of data-intensive scholarly journal publications

• Portico: Expertise in digital preservation, publisher workflow requirements, and existing relationships with 240 publishers
Work Plan

- **Year One**—Planning Phase: Gather requirements, create use cases, hold workshop with stakeholders, refine use scenarios based on community feedback

- **Year Two**—Prototype Development: Create system to identify, store, update, and retrieve relationships among publications and their data
Example Use Case: Publisher

• Publisher wants to know if there are reference links to an article, its author, or a funding agency that it can include in its publication

• Publisher submits article metadata and identifiers to the Matchmaker tool

• Matchmaker consults its database and returns any relationship maps it finds
Working with the Community

- Project PIs will consult with and share project plans and findings with the publishing, research, and data curation communities

- Project workshop in Year One will test prototype plans with stakeholders and use feedback to refine Year Two work plan for prototype development
Outcomes and Deliverables

- Matchmaker tool working prototype
- Plan for long-term sustainability of the service
- Collaborative partnership with the community
- System that supports emerging forms of digital scholarship and publishing
Team Members and Acknowledgements

- Sayeed Choudhury, Tim DiLauro: Data Conservancy, Johns Hopkins
- Gerry Grenier, Renny Guida: IEEE
- Kate Wittenberg, Sheila Morrissey: Portico

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