An OAI-ORE Aggregation for the National Virtual Observatory

David Reynolds
Tim DiLauro
Sayeed Choudhury

Library Digital Programs
Sheridan Libraries
Johns Hopkins University

Presentation Outline

- Some Background

- Motivation for the work described here

- Illustrate simplified current workflow

- OAI-ORE background

- Describe a possible ORE-enabled solution

- Present rough model of a real article

- Future directions

Project Background

- JHU Sheridan Libraries teaming with the NVO and the AAS to capture published data

- Support curation and entrée to preservation

- Stable location for data the journals are not prepared to store permanently

- Provide platform for data services

- Funding from IMLS and Microsoft
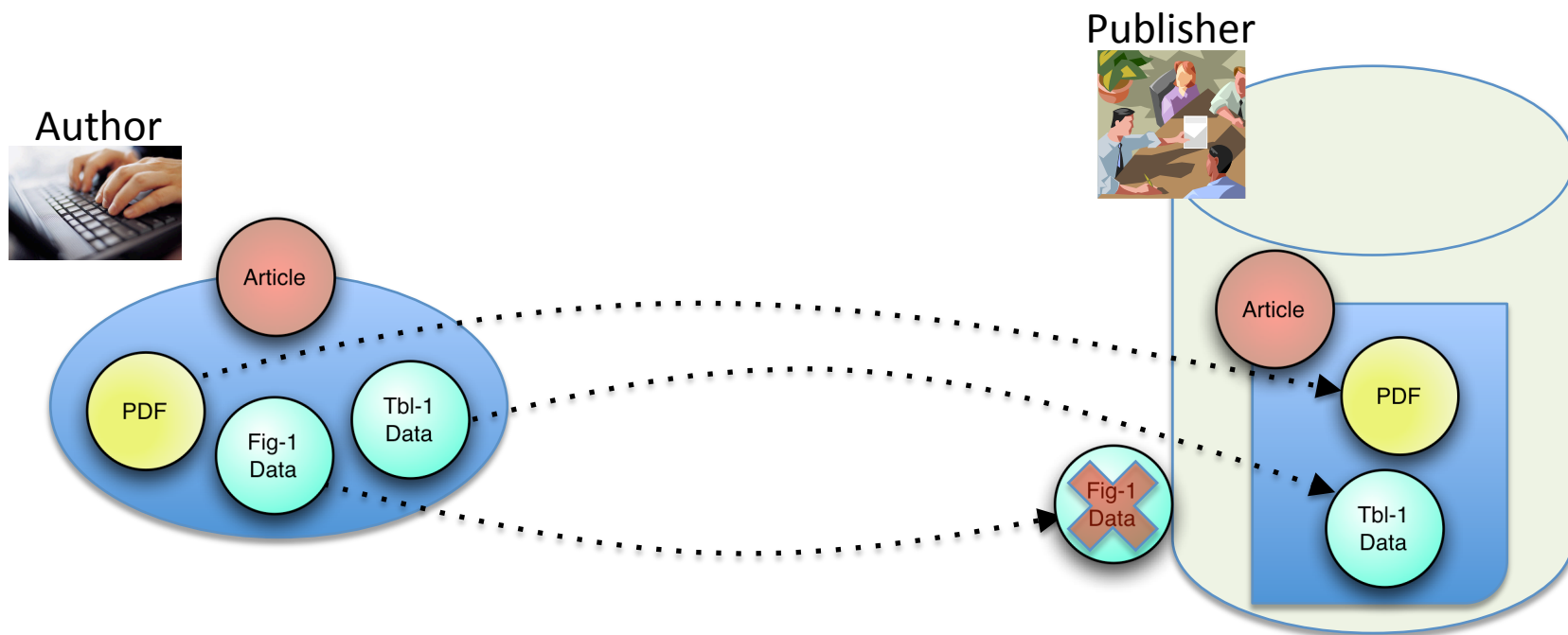
David Reynolds
<davidr@jhu.edu>

Motivation

- Mandate to integrate data capture with extant workflow for multiple journals

- Need to capture relationships with resources which are not part of a particular article

- Desire to share risk

 David Reynolds
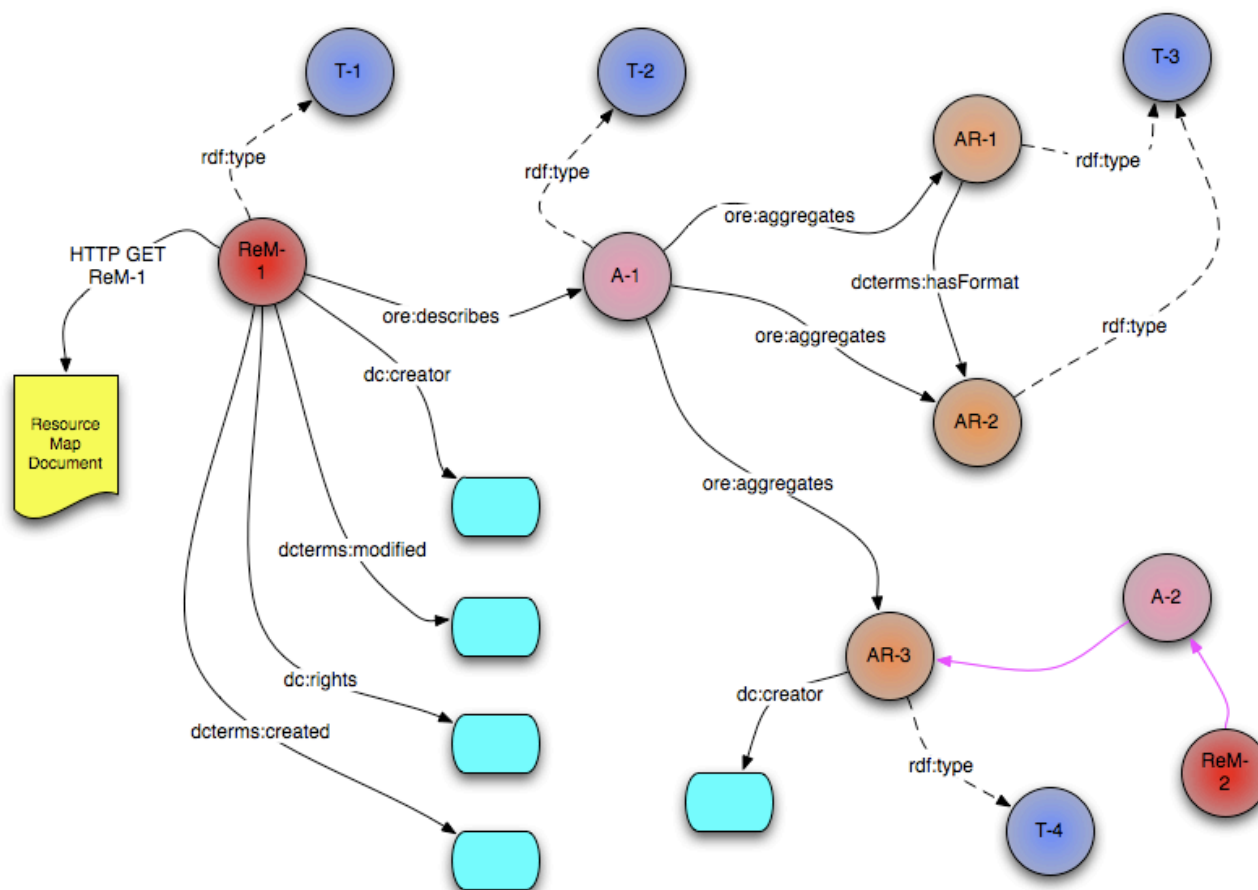<davidr@jhu.edu>

Sample Astronomical Data
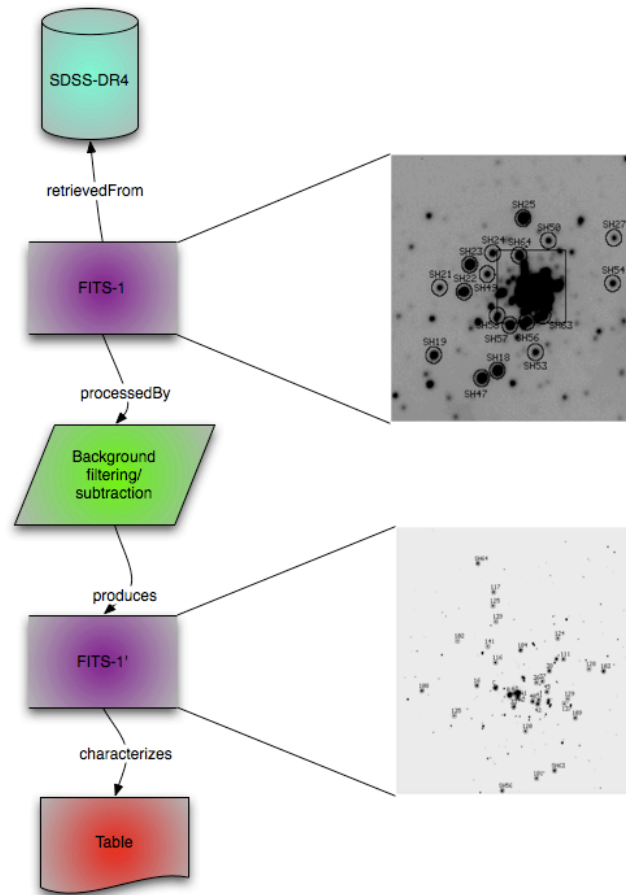
Current Submission Workflow

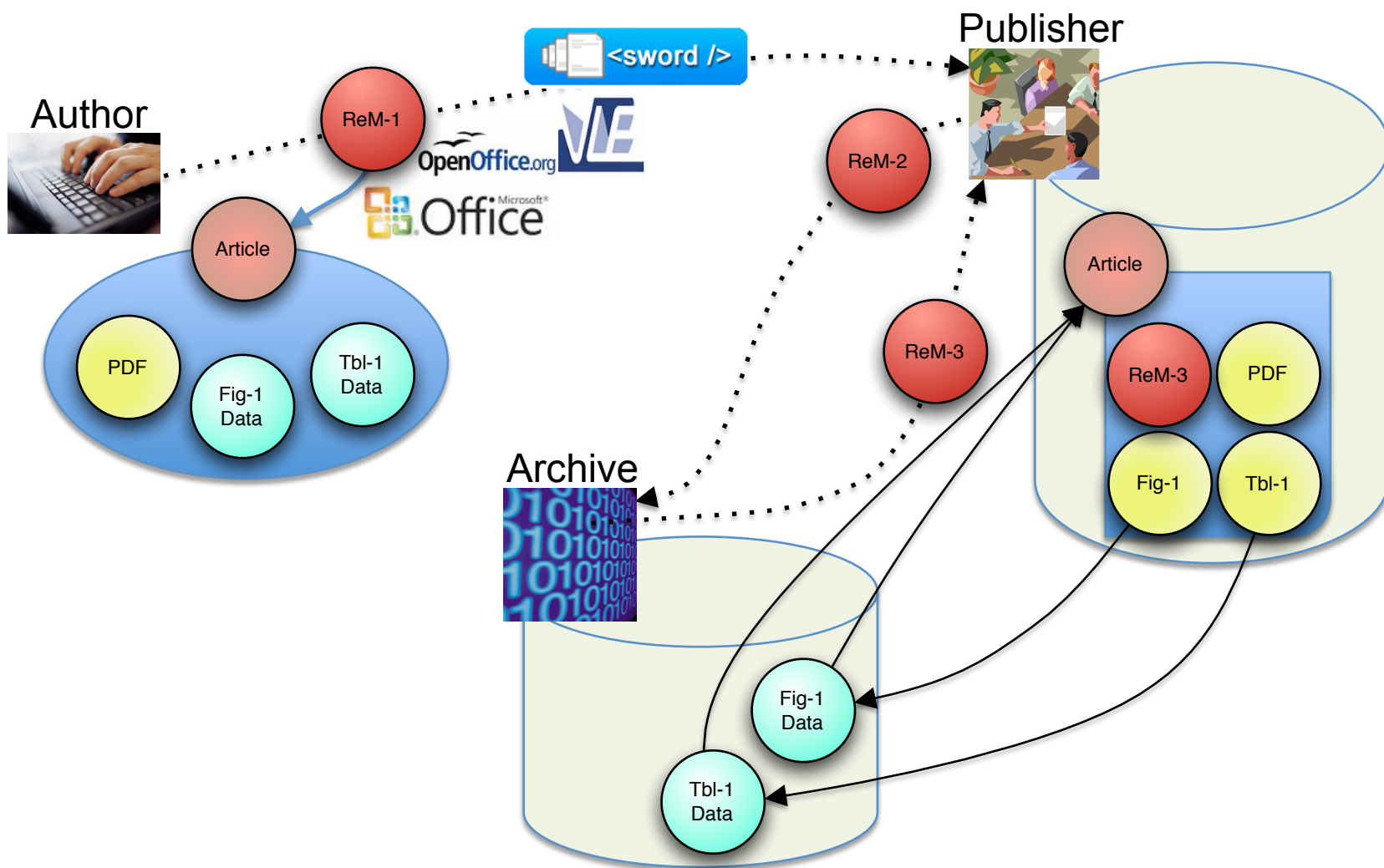# OAI-ORE

- Public alpha release December 2007

- Utilizes Web architecture

- "Used to instantiate, describe and identify aggregations of web resources"

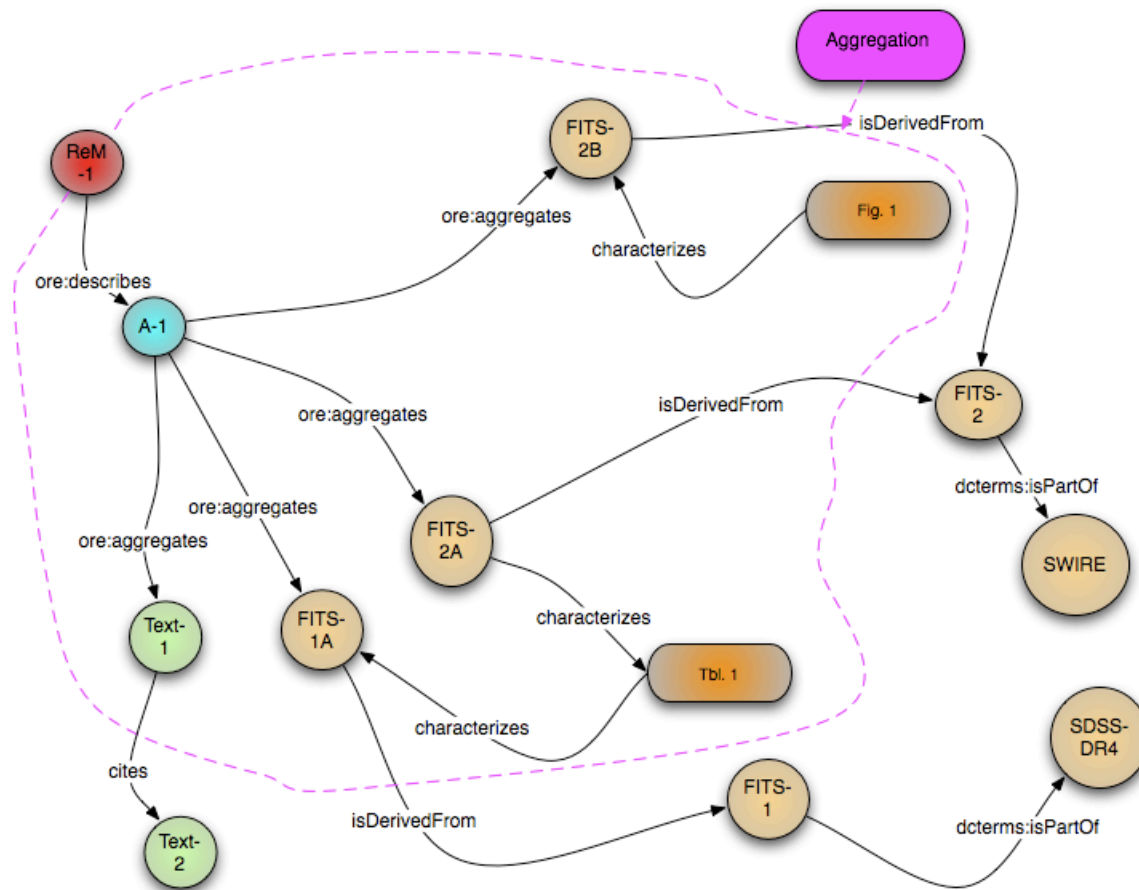- Abstract Data Model, Vocabulary, Resource Map Profile of Atom
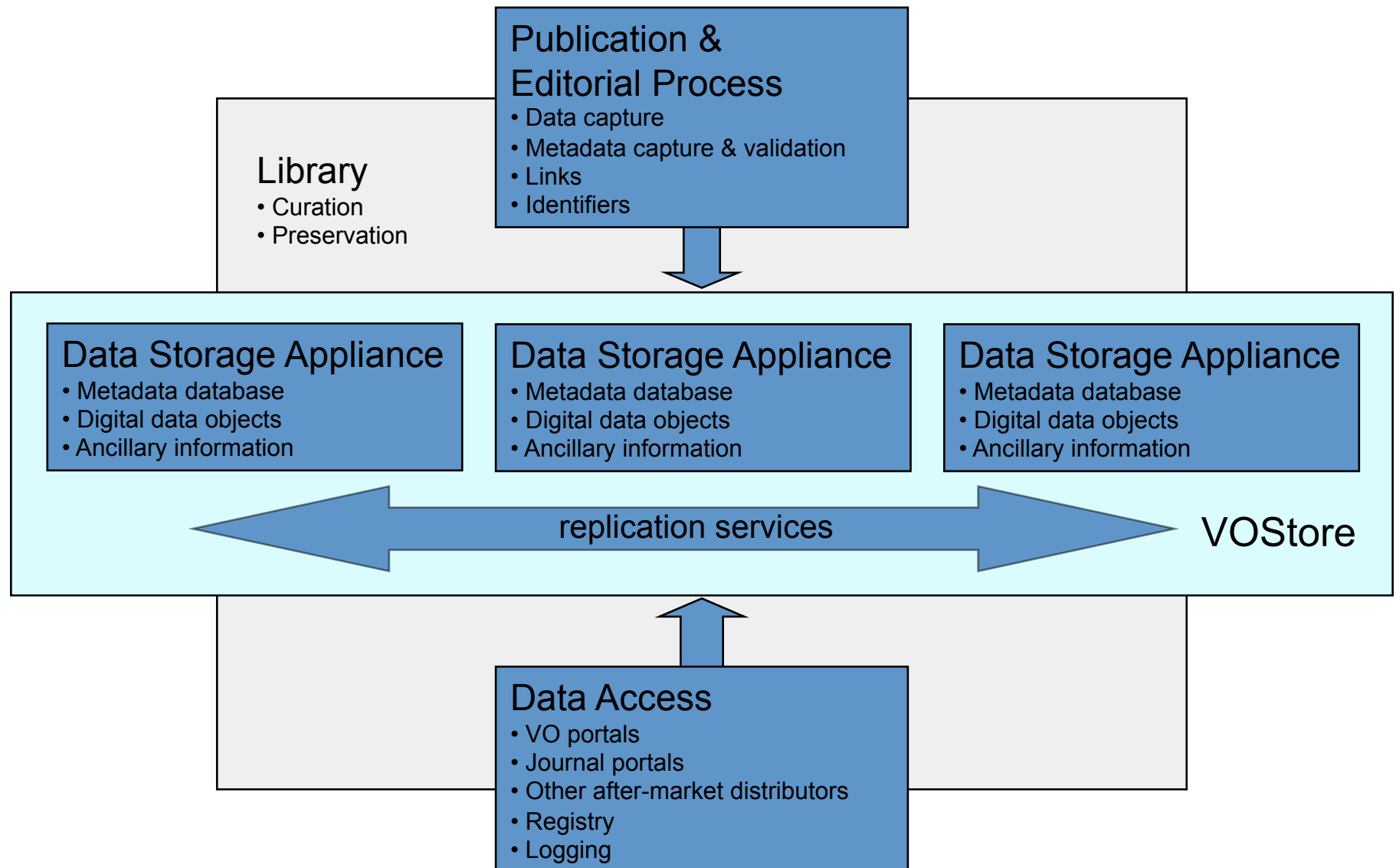
OAI-ORE Basic Model

A More Desirable Workflow

Model of Existing Article

Components: Data Driven Scholarship

Publication & Editorial Process
• Data capture
• Metadata capture & validation
• Links
• Identifiers

Library
• Curation
• Preservation

Data Storage Appliance
• Metadata database
• Digital data objects
• Ancillary information

Data Storage Appliance
• Metadata database
• Digital data objects
• Ancillary information

Data Storage Appliance
• Metadata database
• Digital data objects
• Ancillary information

replication services

VOStore

Data Access
• VO portals
• Journal portals
• Other after-market distributors
• Registry
• Logging

David Reynolds
<davidr@jhu.edu>

Future Directions

- Library can provide a common infrastructure
- Investigate data curation in other scientific disciplines
- Gather input from scholarly societies
- Digital humanities

David Reynolds
<davidr@jhu.edu>