

# Collaborating to Manage Research Data

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# Notre Dame Research Profile

## - Research & Sponsored Programs Revenue

- FY09: \$120.9 million
- FY14: \$189.7 million
- \$68.8 million (56.9%) increase
- 9.4% annual growth rate

# Data Growth Potential

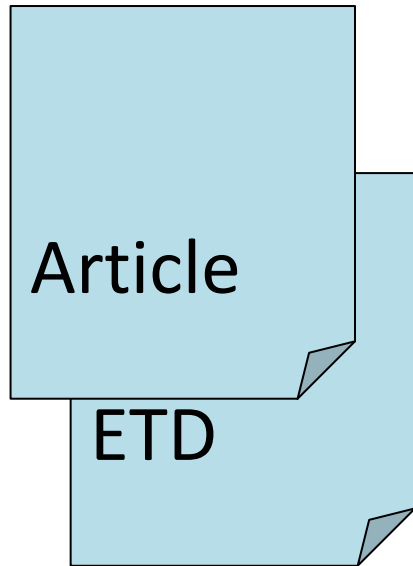
## - Investment in Research

- FY09: \$88.9 million
- FY14: \$161.9 million
- \$73 million increase (82.1%)
- 12.7% annual growth rate
- Advancing Our Vision
  - \$13 million recurring investment
  - 10 Disciplines (i.e. computational data, adult stem cell, nuclear physics)
  - 80 new faculty

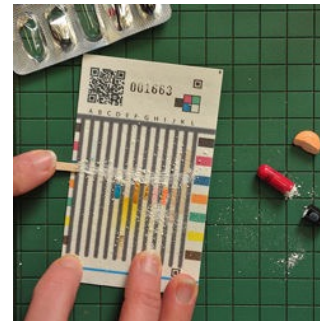
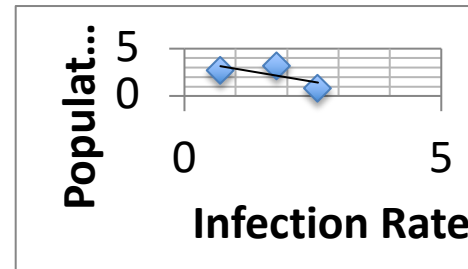
# Nature of Research Data

- Often requires enormous storage (volume, accumulative)
- Often exists in diverse formats
- Increasingly owned by faculty across institutions
- Requires intensive resources and new expertise

# Related Materials: Any Format



## Statistical Data



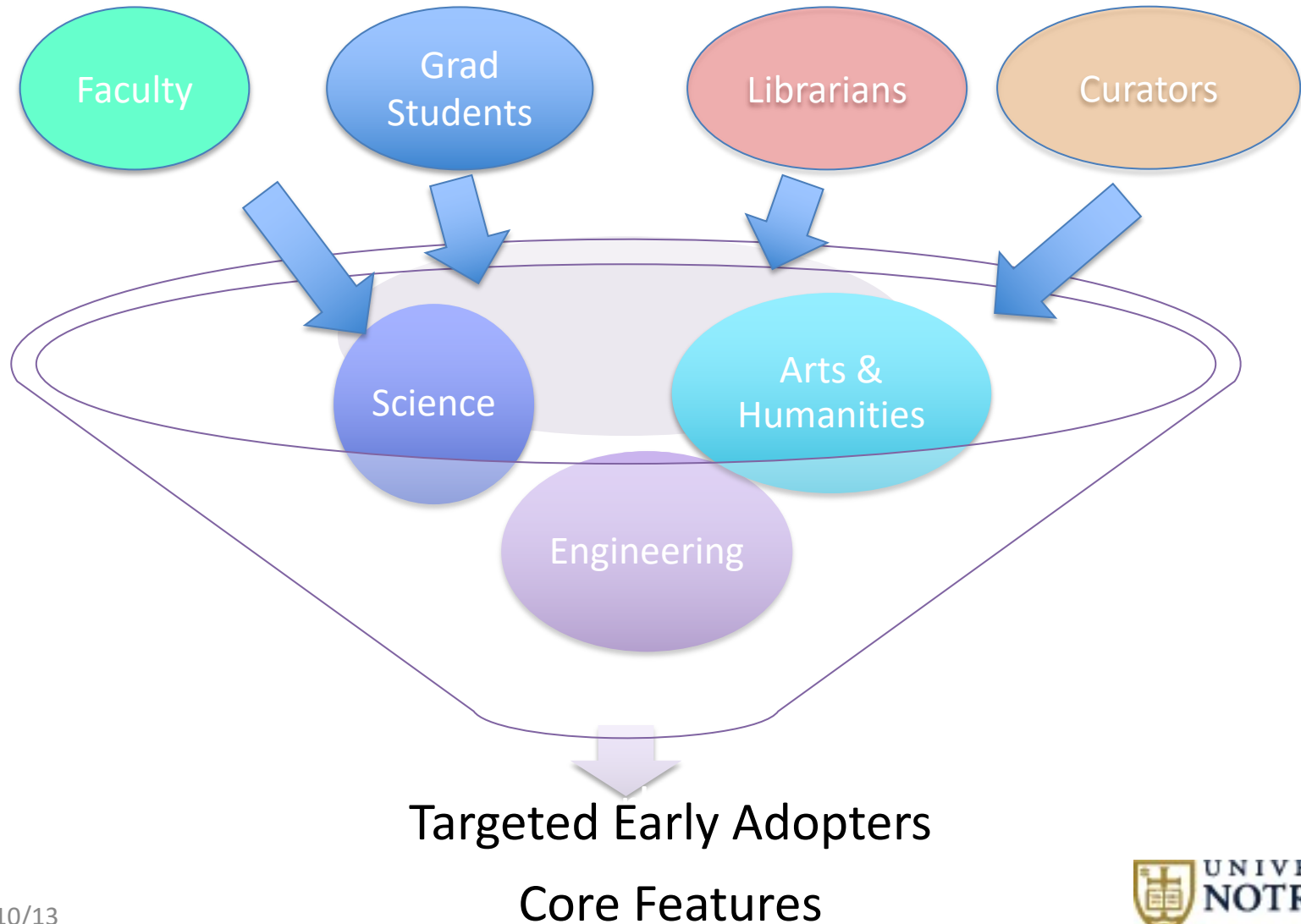
## Image Data

# Library Context

## - Institutional Digital Repository

- Part of Hydra community
- Vertical Successes
- High demand due to the Open Data Mandate and Public Access Policies
- Storage allocation internal to library needs
- Digital Initiative Program staffing level

# User-Centric Personas



# Design Strategy

- Design for everyone, but optimize for intermediate (Alan cooper)
  - Critical needs
  - What are the core? Other advanced services?

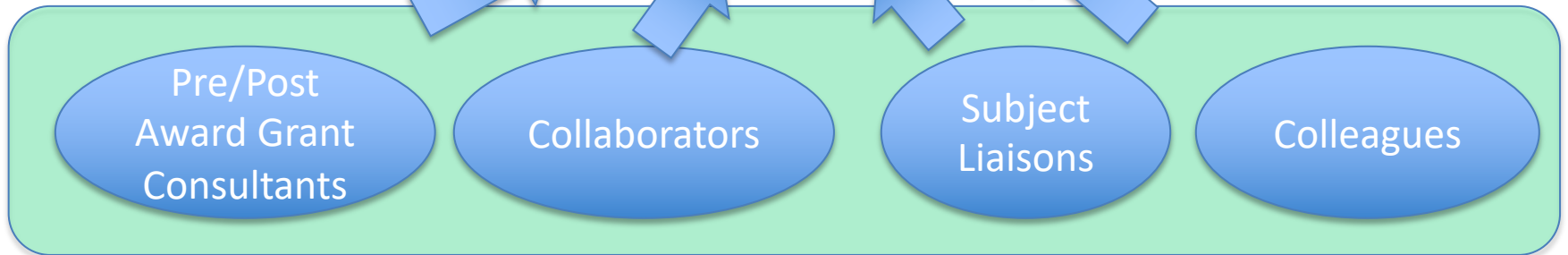


# Partnerships are Key

- Increasing complexity demands support of experts
  - Funding Agency Requirements
  - Copyright and Intellectual Property
  - Metadata and Data Structuring
  - Data sharing and Preservation

# How Do We Connect with Researchers?

Top Down



Grass Roots

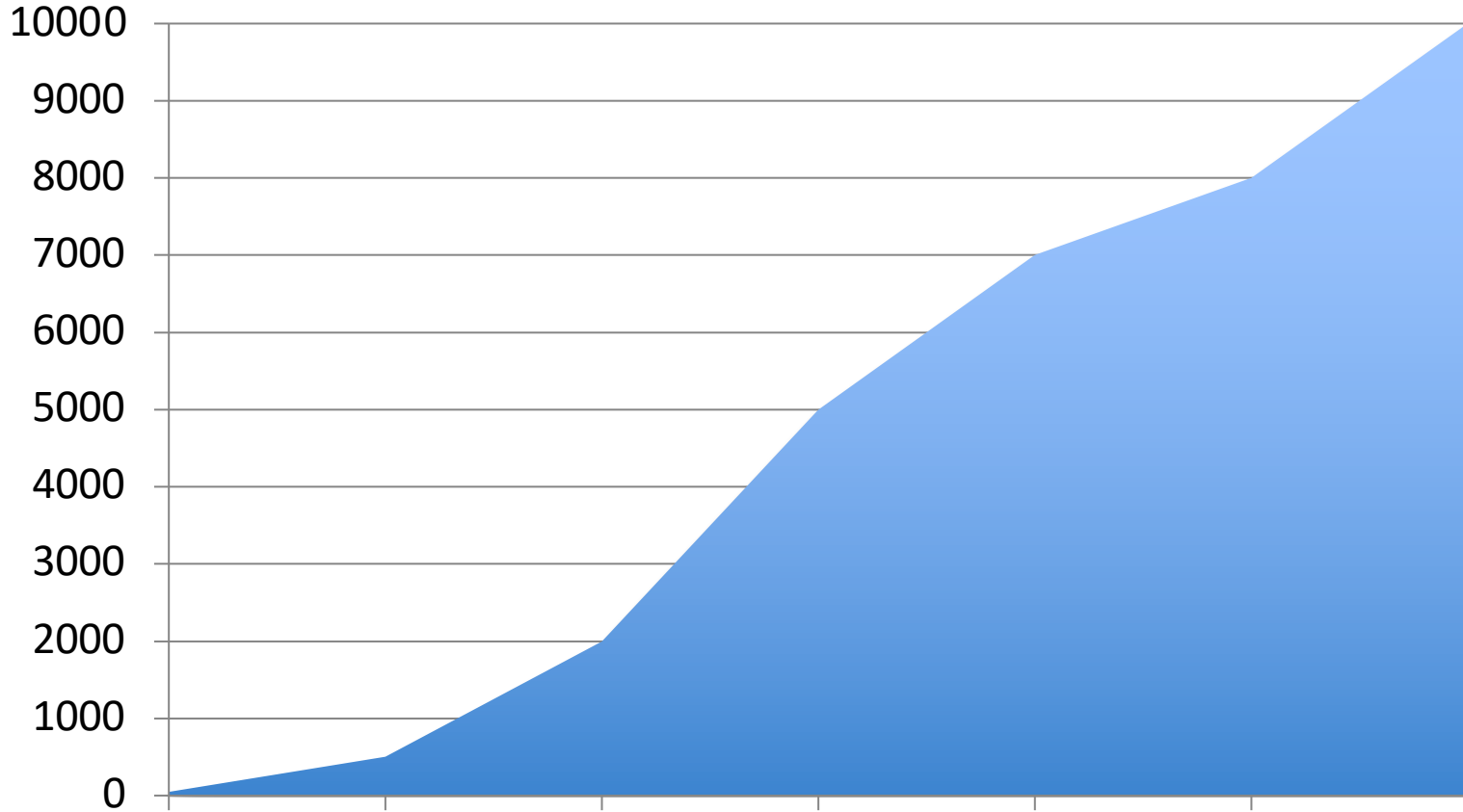


# Priorities First Phase

- Wide format support, with mixed collections
- Focus on Preservation and Curation
- Get Users Engaged Early
- Release Early; Release Often

# Grow Together

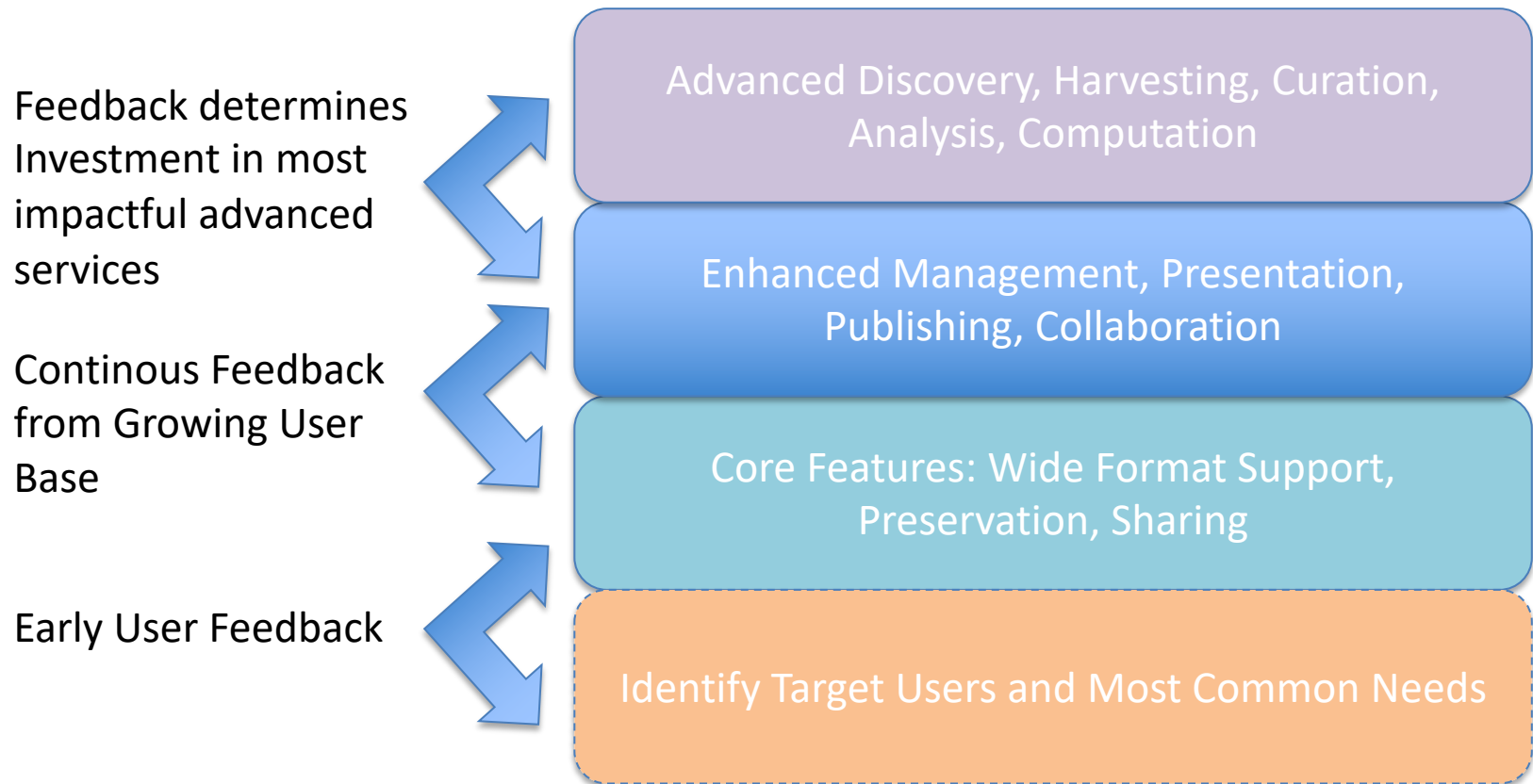
User Base



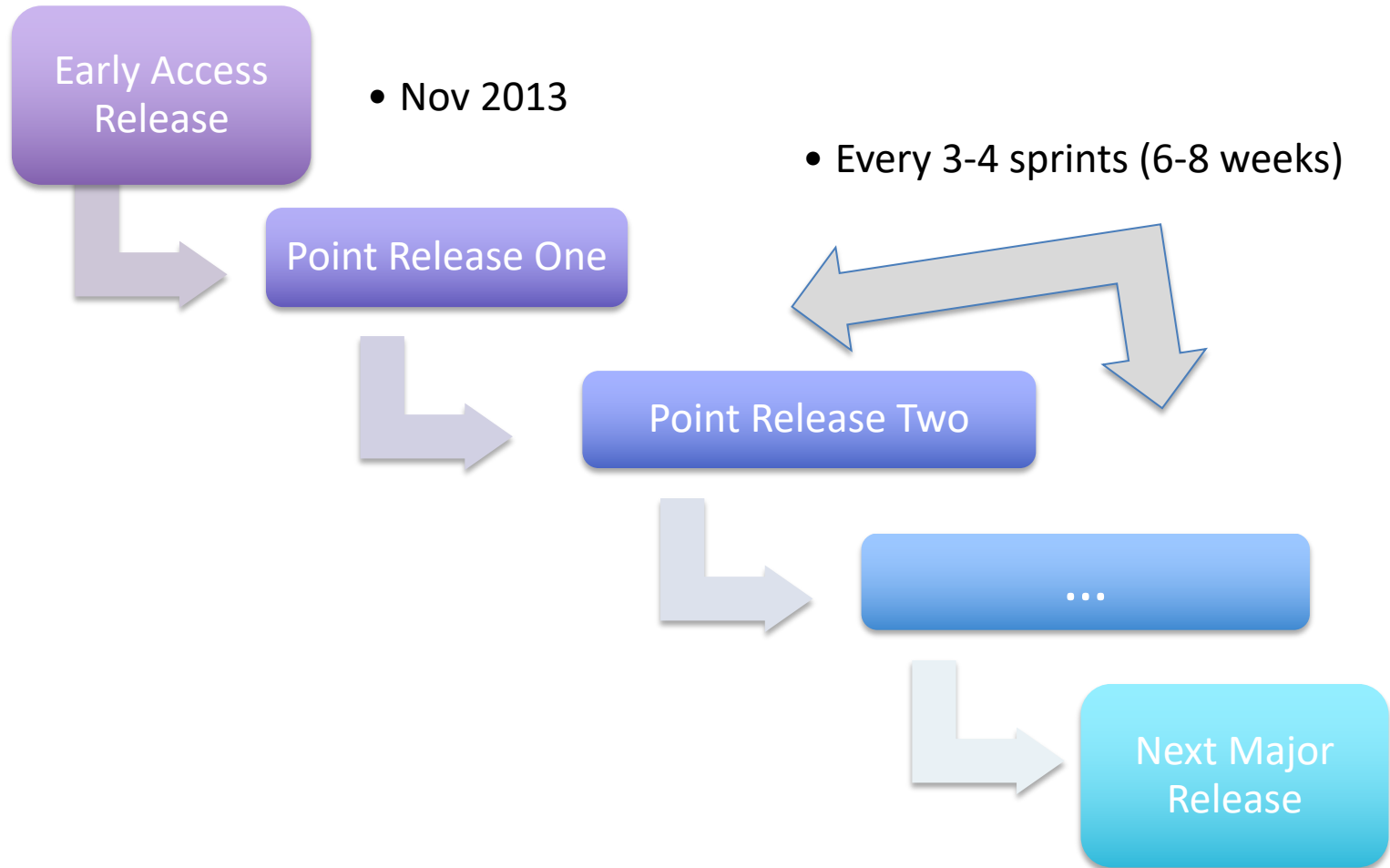
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Features

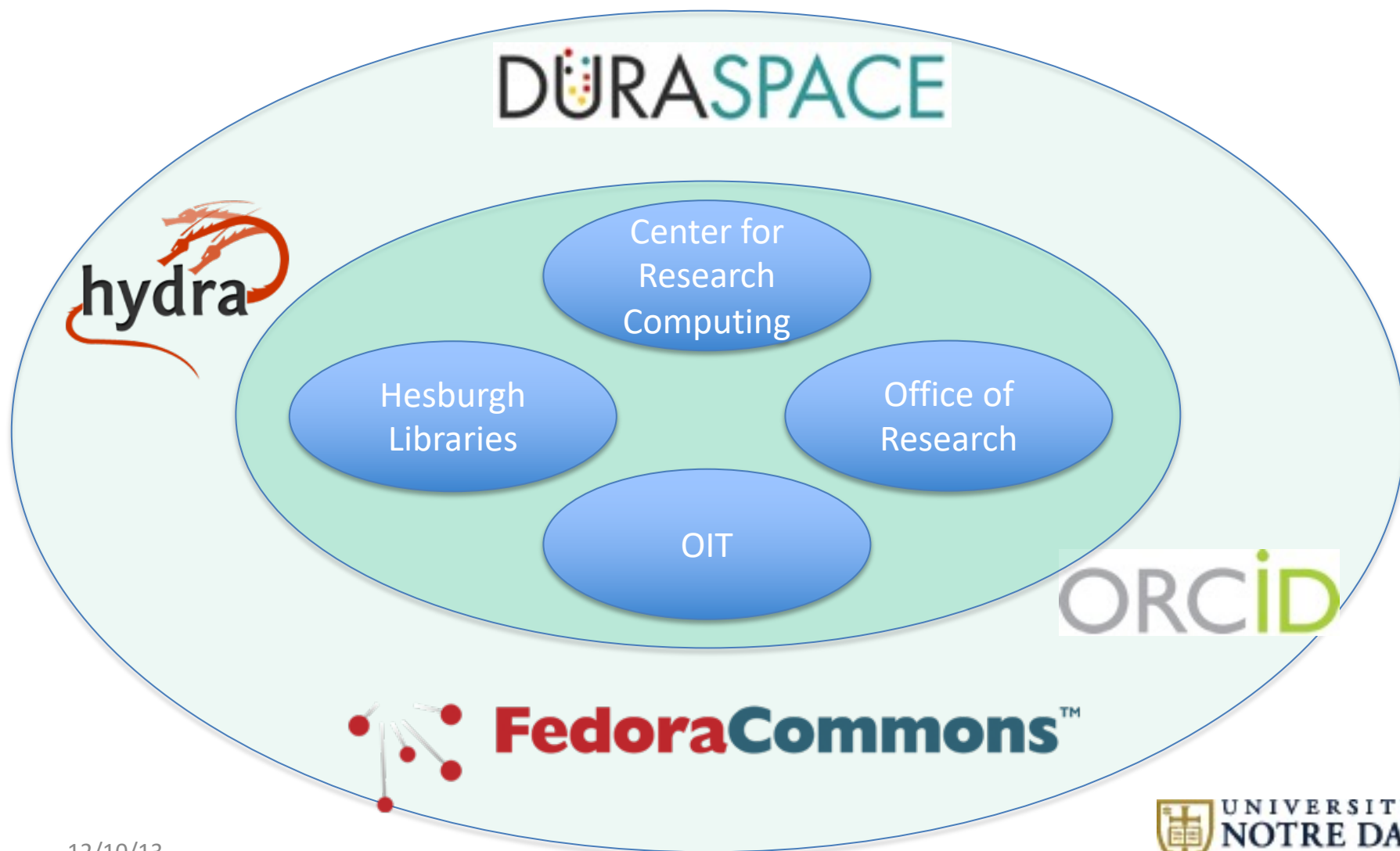
# Layered Continuous Improvement



# Release Early; Release Often



# Sustain through Community



# Sustain through Community

## Shared IR Project

- Complete Multi-Institutional Collaboration from top to bottom within the Hydra Community
  - Shared Roadmapping and Governance
  - Community and Local Roles
  - Rotate Resources

## DATA CURATION EXPERTS



INDIANA UNIVERSITY



NORTHWESTERN  
UNIVERSITY

PENNSTATE

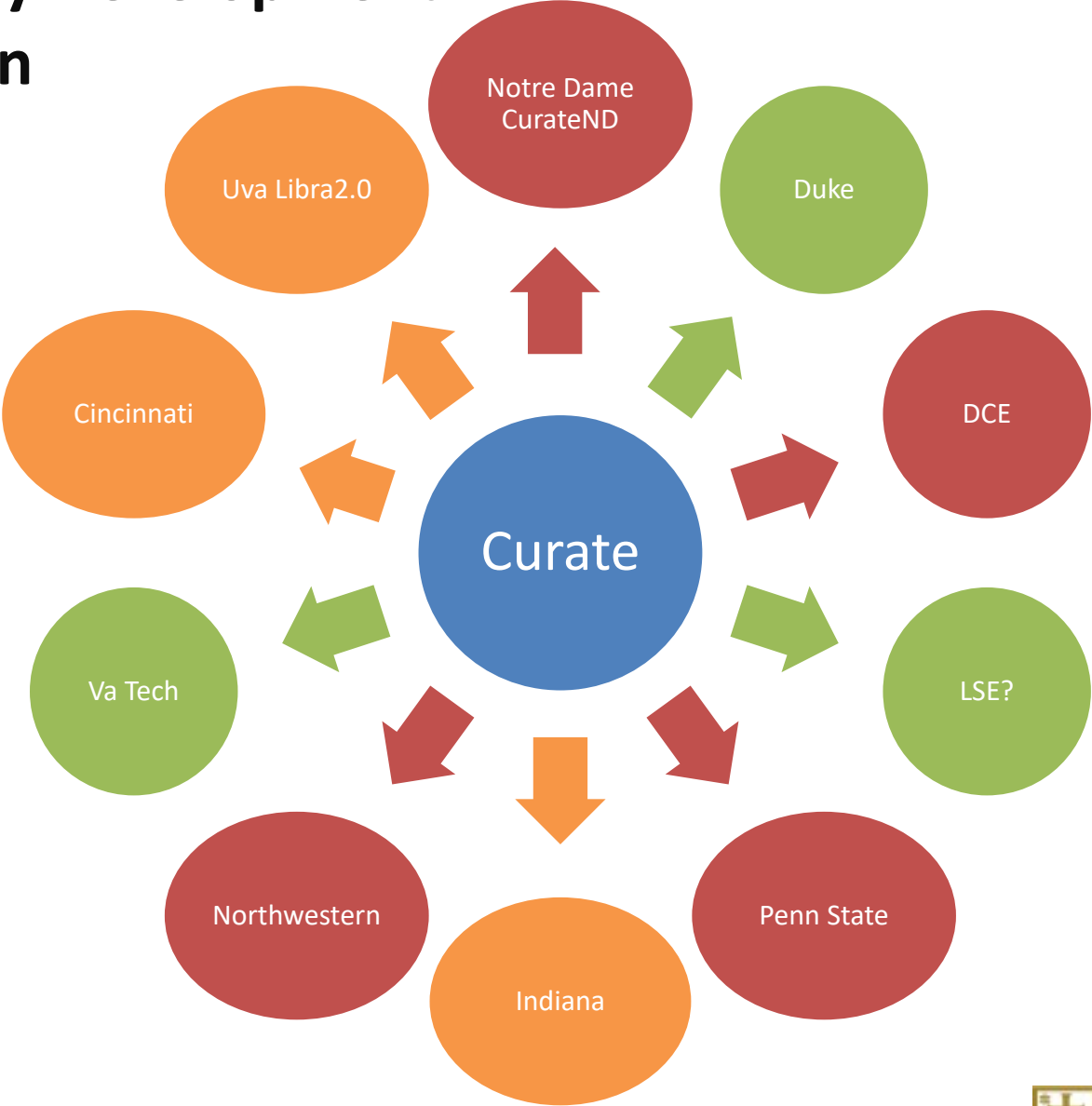


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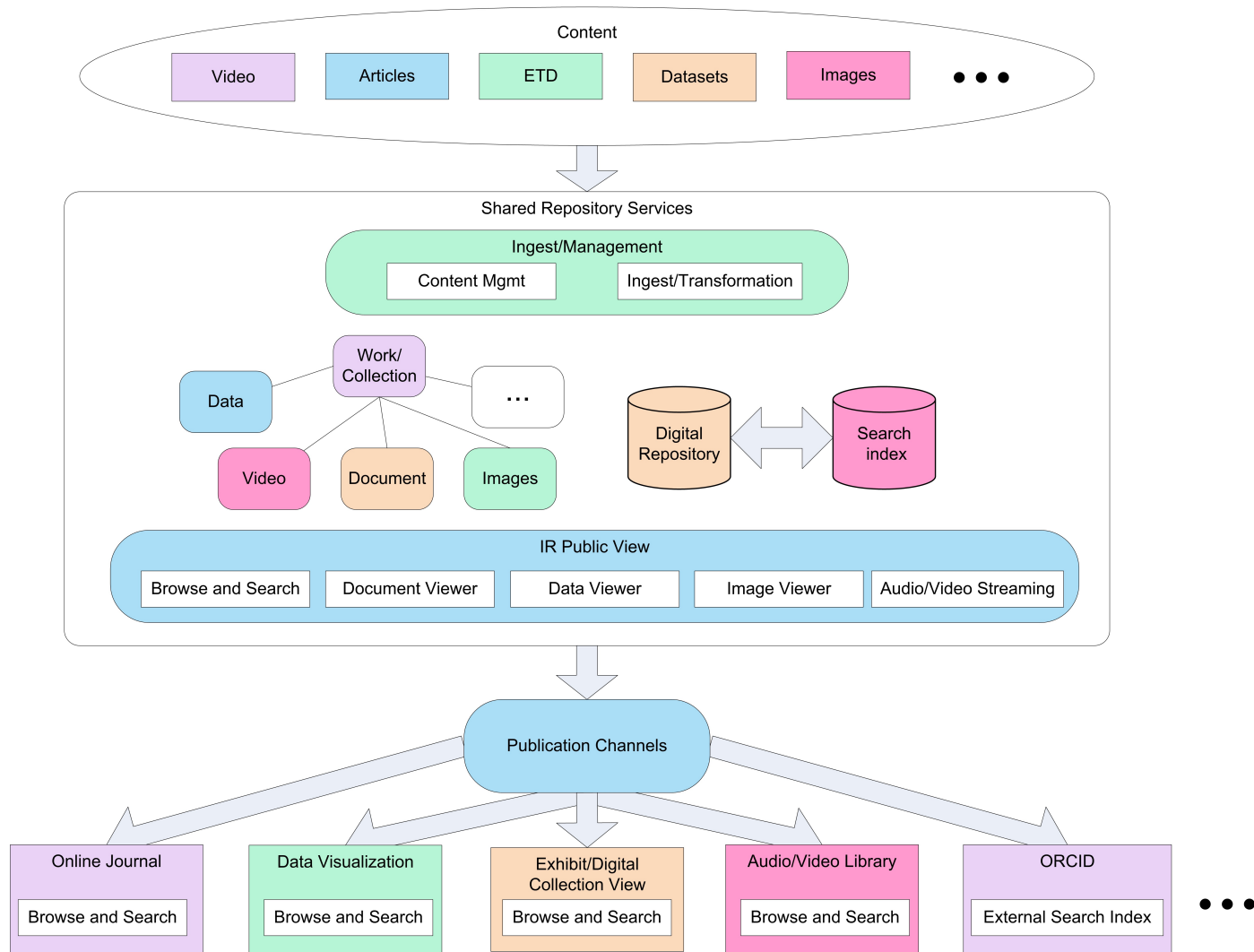




# Community Development & Adoption



# Mixed Architecture



# Future Priorities

- By April
  - Improved Organization and Managed Collection Support
  - Submission, Review, and Publish Workflows
  - Integration with ORCiD
  - Bulk Ingest Support

# Future Priorities

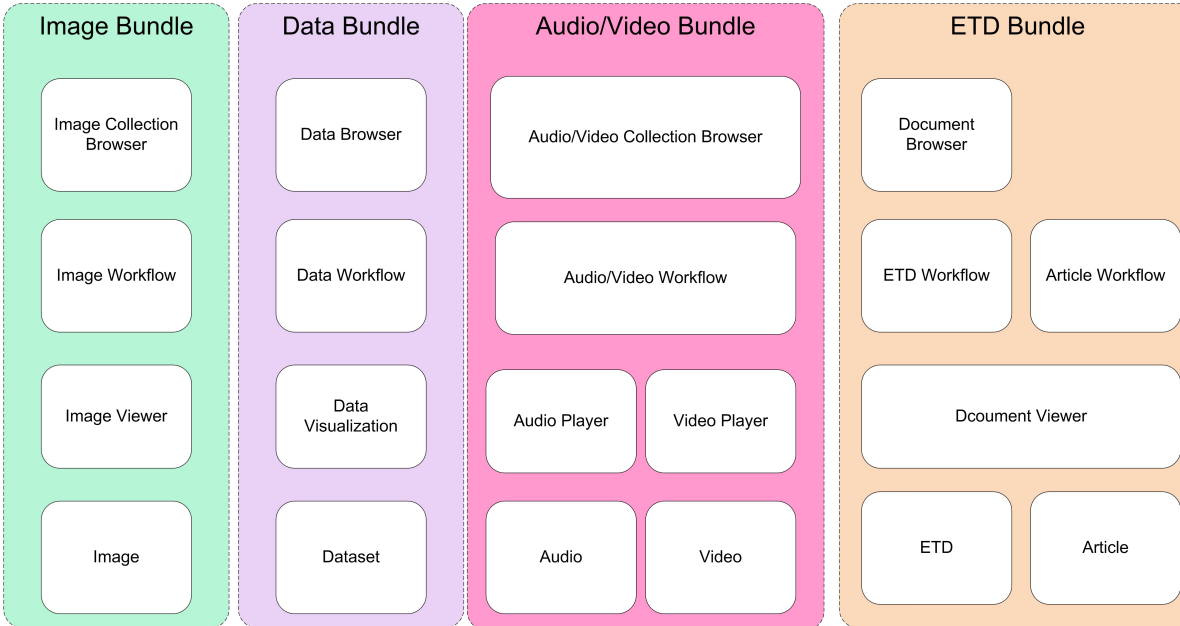
- April and beyond
  - Enhanced Publishing Layer to Digital Exhibits, Online Journals
  - Tuned and Optimized for large datasets
  - Integration with SHARE
  - Pluggable support for solution bundles

# Shared IR Bundles/Plugins

Publish



Browse

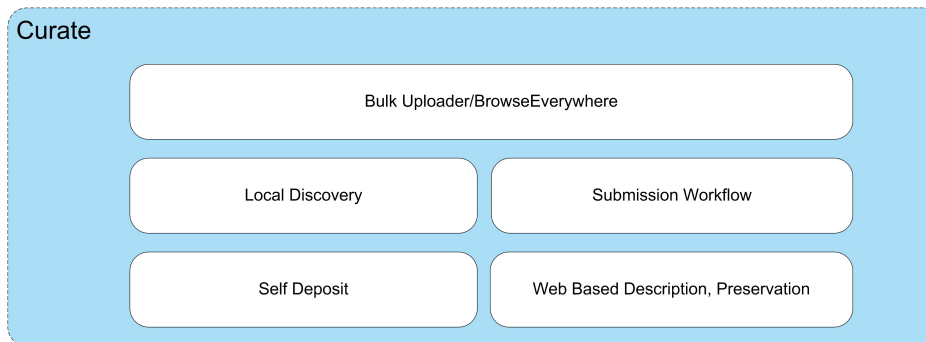


Workflow

Viewers

Works

Core



# Quick Demo

UNIVERSITY of NOTRE DAME

HESBURGH LIBRARIES

## CurateND

Go

### What is CurateND?

CurateND is a secure repository service enabling the University of Notre Dame community to share its research and scholarly work with a worldwide audience. Faculty, staff, and students can use CurateND to collect their work in one location and create a durable and citeable record of their papers, presentations, publications, data sets, or other scholarly creations.

[Get Started](#)

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# FAQ

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- Hydra Shared IR Project Wiki:
  - <https://wiki.duraspace.org/display/hydra/Shared+IR+project>
- <http://curate.nd.edu>