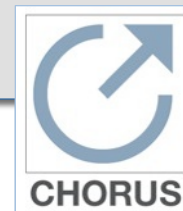# CHORUS

Clearinghouse for the **Open Research** of the United States

A **Publisher-Agency Partnership**
Providing Public Access to the Results of
Agency Sponsored Research

Conceptual Design Report

**Howard Ratner,** Director of Development, CHORUS

CHORUS

Clearinghouse for the **Open Research** of the United States

A broad coalition of scholarly journal publishers formed to develop, implement and steward a partnership with the federal research funders for providing public access to the results of federally-funded research including peer-reviewed publications, agency reports and associated data.

- Evolved from an ad-hoc group of publishers who initiated partnership discussions with several agencies in Spring 2011.

Goals:

- Fully **meet all requirements** of the February 22, 2013 OSTP memo

- **Leverage existing infrastructure** and investment of the agencies and publishers

- **Preserve agency funds** for mission critical activities/programs
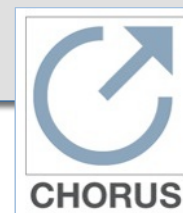
Building On A Tested Model for the Proposed Partnership

FundRef:
A methodology for identifying articles resulting from agency funding was launched in May 2013 by CrossRef after completion of a pilot involving DOE, NSF, NASA, Wellcome Trust and seven of the partner publishers.

This pilot project addressed article identification by funding agencies;
it is now a live service as of May 2013.

Personas / Stakeholders

Alan the Agency Department Head (e.g., DOE, NSF, USAID)

Wants to…

- meet OSTP guidelines/mandate
- measure grantee and agency compliance with guidelines/mandate
- show how his agency's investments are having impact (ROI)
- know who his agency is funding
- know what other streams of funding a grantee/rewardee might have to enable co-funding
- know what are potential synergies with other departments
- have access to or be fed reporting information at agreed upon intervals
- provide access to the best available version (BAV*) of articles resulting from agency funding for their constituency
- be able to preserve the content
- integrate information from publisher systems with their own internal systems (via APIs)
- be able to text and data mine the content
- be able to see that access after embargos is honored in perpetuity
- be able to do all of the above in customized ways for his constituents (e.g., DOE PAGES)
- be assured that content is made open upon agency defined/acceptable trigger events
- see abstracts in results set
- search by author, award, components of award, program element, subject area, topic
- avoid administrative burden to grantees/rewardees

* BAV = Best Available Version – accepted manuscript or version of record

CHORUS
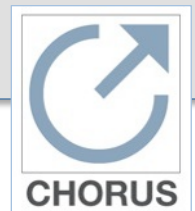
Rachel the Researcher / Principal Investigator

Wants to …
- obtain funding for her research
- meet agency guidelines
- know the sources of funding in her area of research
- know where other funding from her colleagues/competitors is coming from
- know what else her funding agency has funded (what are the buzzwords, spot patterns)
- know what are potential synergies/collaborations with other researchers
- have real-time information
- have access to best available version (BAV*) of content in her research area
- extract metadata and entities by text and data mining the content
- guarantee that content will not disappear
- be able to see that access after embargos is honored in perpetuity
- get recognition for research
- search by author, award, components of award, program element, subject area, topic
- use the best search tools and be able to access the same content and metadata
- validate the sources she uses (e.g., citation impact)
- read abstracts even when article is under embargo
- upload information into a system once and be used by many
- avoid extra administrative work

*BAV = Best Available Version – accepted manuscript or version of record

Paul the Publisher

Wants to …
- help authors and agencies meet agency and government guidelines
- maintain accepted manuscript and Version of Record
- offer access to best available version (BAV*) of their content
- provide persistent access to his content
- honor access rules in perpetuity
- sustain his business model
- get recognition by scholarly research community for contribution as a publisher
- be considered an approved publisher for agency research
- know what institutions are publishing research
- know who is funding the research
- attract best authors, editors, best societies
- attract eyeballs and clicks to his website(s)
- create new services for customers
- create new services for funding agencies
- know who funded the research for articles published
- know where all versions of the content is hosted
- know where other funding from competitors is coming from
- know what else the funding agency has funded (what are the buzzwords)
- know what are potential synergies/collaborations with other publishers
- have real-time information
- be seen as the best publisher to work with
- avoid extra administrative work

*BAV = Best Available Version – accepted manuscript or version of record

CHORUS
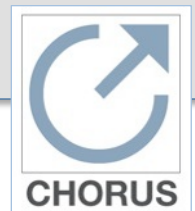
Peter the Public

Wants to …
- have access to best available version (BAV*) of content to research a problem he had in his their daily life
- see what the government is funding
- learn the impact of specific agency grants
- understand the latest developments in science
- understand what he is seeing by being given context and guidance
- have content connected to learning tools

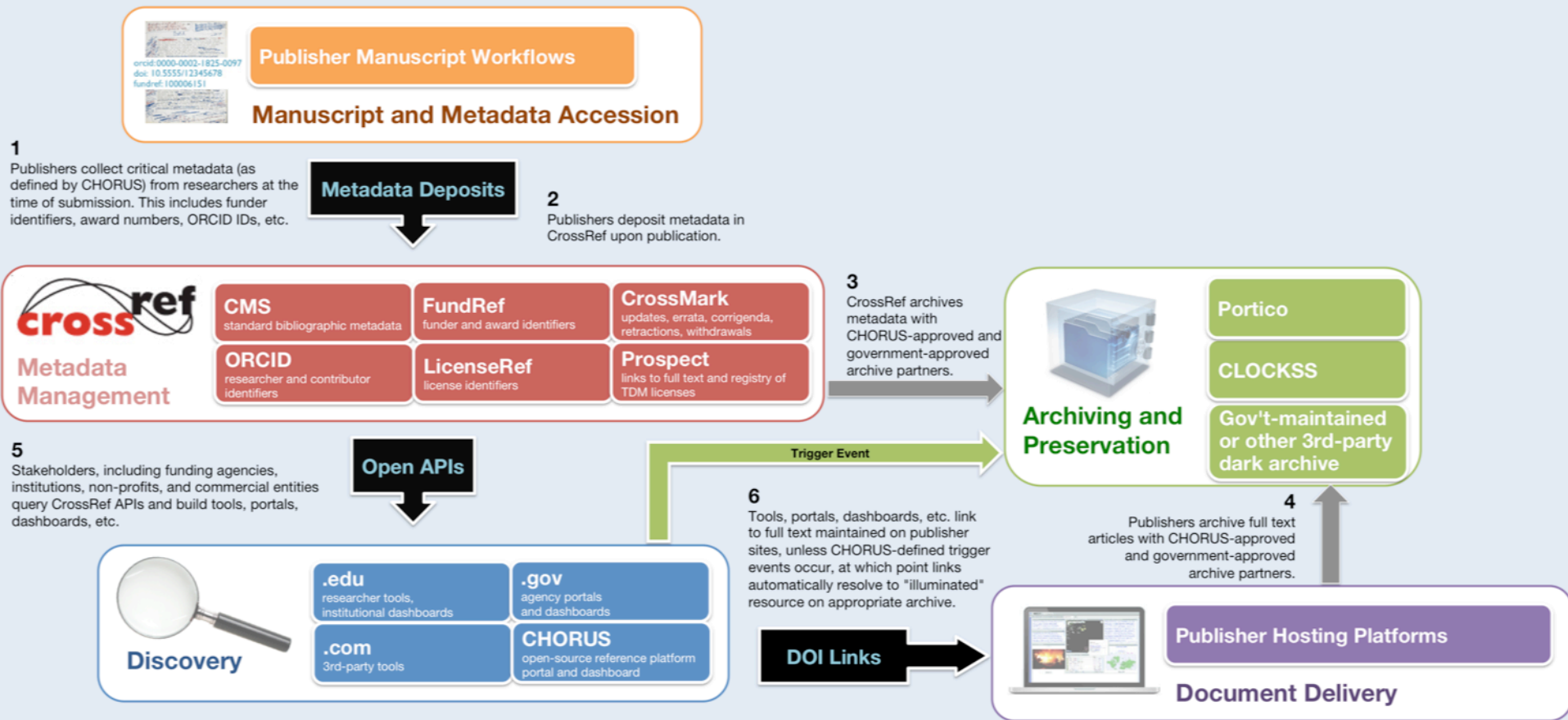* BAV = Best Available Version – accepted manuscript or version of record

CHORUS

CHORUS Design & Services

CHORUS Conceptual Design

Service 1. Key Performance Indicators Dashboard (website & API)

System for monitoring and tracking publisher contributions to the CHORUS system

What:
- #/% of content (i.e., articles, conference proceedings, books) from agency funded research (live)
- #/% of articles from agency funded research per year (live)
- #/% licenses registered for those articles (in progress)
- alert/report based on compliance criteria at agreed intervals (new)
- alert/report based on actual access (ping) vs stated license at agreed intervals (new)
- # ORCIDs from agency funded research (live)
- # affiliation from agency funded research (future - soon via ORCID)
- % of metadata from a publisher has FundRef information?
- % of articles from a publisher is publically accessible
- % of articles are publicly accessible after stated embargo
- % of articles archived (future)
- % of articles have basic FundRef metadata
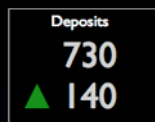- Passed audit (government agency, independent, etc.)

DRAFT

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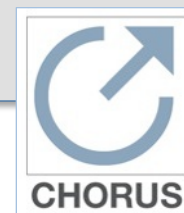
Agency X Deposits Dashboard

Summary

Deposits
730
▲ 140

Deposits funded by Agency X
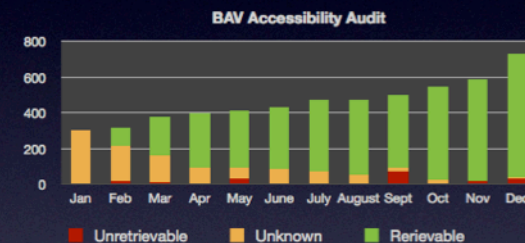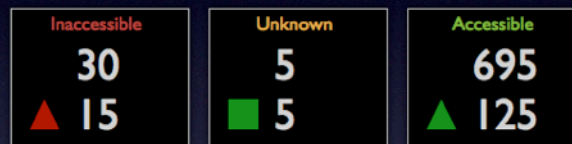
Content tested for public accessibility

Deposits made to dark archives approved by Agency X

Current Month

Deposits where LicenseRef = Unapproved/Unknown/Approved by Agency X

License Audit:

Unacceptable	Unknown	Acceptable
10	20	700
■ 10	■ 20	▲ 150

Accessibility Audit

Inaccessible	Unknown	Accessible
30	5	695
▲ 15	■ 5	▲ 125

Archive Audit

Unacceptable	Unknown	Acceptable
0	35	695
▼ 15	▲ 5	▲ 125

Current Period

License Audit
■ Unacceptable ■ Unknown ■ Acceptable

BAV Accessibility Audit
■ Unretrievable ■ Unknown ■ Rerievable

Archive Audit
■ Unacceptable ■ Unknown ■ Acceptable

Service 2. Discovery Service (website & API)

Discovery service for content resulting from agency-funded research. Agencies can use API to feed their own portals. CHORUS website can be used by end users. Customized versions of CHORUS website can be created for agencies.

What:

powered by

- enables user to search across bibliographic metadata
- links to publisher site (BAV = AM or VOR)
- download list of results in CSV for analysis
- facet (filter) by sub-organization
- facet (filter) by parent organization
- facet (filter) by content type (e.g., book, journal, dataset, conf proceeding, component)
- facet (filter) by year of publication
- facet (filter) by subject category (e.g., physics, astronomy, …)
- facet (filter) by year of publication
- facet (filter) by publisher (to come)
- facet (filter) by author/ORCID (to come)
- cite any result using CSL defined format
- add to ORCID profile
- import results into reference manager software (via COinS)
- see if result has been cited by patents (in progress)
- number of times result is cited (CrossRef Cited By Service/Scopus/Web of Knowledge)
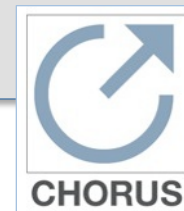- service open to public

API Integration with Agency Portals
Example

The Department of Energy Office of Scientific and Technical Information (OSTI) maintains a STI (Scientific and Technical Information) ingest tool called E-Link.

1. National Labs and grantees submit metadata for various forms of STI, such as technical reports, to OSTI.

2. OSTI will extend E-Link submission requirements to AMs, where metadata and AM hyperlinks will feed into PAGES.

3. DOE presumes an administrative interval of multiple months before public access to the AMs is offered by PAGES. Through a CrossRef lookup service, OSTI will add the AM's corresponding article DOI to the metadata record, where the PAGES patron may encounter article access behind a pay wall, unless the publisher offers immediate open access.

4. In parallel with STIP submission processes, PAGES will ingest metadata from CHORUS.

5. As currently envisioned, CHORUS will enable agencies to ingest agency-specific metadata through an API service.

DOE Requirements – Walter Warnick (July 11, 2013)

CHORUS

API Integration with Agency Portals

CHORUS
Clearinghouse for the Open Research of the United States
search

☐ Include funding from sub-organizations

U.S. DEPARTMENT OF ENERGY

Research and Development, Office of Electricity Delivery and Energy Reliability

Technology Innovation and Development, Office of Environmental Management

Public Information, Office of Public Affairs

Nuclear Facility Operations, Office of Nuclear Energy

Clean Coal, Office of Fossil Energy

Advanced Scientific Computing Research, Office of Science

Biomass Program, Office of Energy Efficiency and Renewable Energy

Office of Space and Defense Power Systems, Office of Nuclear Energy

Energy Policy, Office of General Counsel

Office of Policy and International Affairs

Building Technologies Program, Office of Energy Efficiency and Renewable Energy

Infrastructure Security and Energy Restoration, Office of Electricity Delivery and Energy Reliability

Office of Health and Safety, Office of Health, Safety, and Security

Oil and Natural Gas , Office of Fossil Energy

Basic Energy Sciences, Office of Science

Energy Information Administration

Climate Change Policy and Technology, Office of

SORT BY: **RELEVANCE** PUBLICATION YEAR   ⬇ DOWNLOAD AS CSV   PAGE 1 OF 1,361 RESULTS

The effect of anisotropic heat transport on magnetic islands in 3-D configurations

Journal Article published 1 Aug 2012 in **Physics of Plasmas** volume 19 issue 8 on page 082514

Research funded by U.S. Department of Energy (DE-FG02-99ER54546)

Authors: M. G. Schlutt, C. C. Hegna

↗ http://dx.doi.org/10.1063/1.4747500   ⌄ Actions

Numerical calculation of neoclassical distribution functions and current profiles in low collisionality, axisymmetric plasmas

Journal Article published 1 Aug 2012 in **Physics of Plasmas** volume 19 issue 8 on page 082515

Research funded by U.S. Department of Energy (DE-AC05-06OR23100, DEFC02-08ER54969, DEAC02-09CH11466)

Authors: B. C. Lyons, S. C. Jardin, J. J. Ramos

↗ http://dx.doi.org/10.1063/1.4747501   ⌄ Actions

Continuum representation of a continuous size distribution of particles engaged in rapid granular flow

Journal Article published 1 Aug 2012 in **Physics of Fluids** volume 24 issue 8 on page 083303

Research funded by National Aeronautics and Space Administration (NNX09AD07A) | U.S. Department of Energy (DE-FC26-07NT43098)

Authors: J. A. Murray, S. Benyahia, P. Metzger, C. M. Hrenya

↗ http://dx.doi.org/10.1063/1.4744987   ⌄ Actions

Direct determination of the effect of strain on domain morphology in ferroelectric superlattices with scanning probe microscopy

Journal Article published 1 Sep 2012 in **Journal of Applied Physics** volume 112 issue 5 on page 052011

Research funded by U.S. Department of Energy (DE-FG02-07ER46417) | Basic Energy Sciences, Office of Science, U.S. Department of Energy (DE-SCOO02334) | National Science Foundation (DMR-00-0805174)

Authors: K. Kathan-Galipeau, P. P. Wu, Y. L. Li, L. Q. Chen, A. Soukiassian, Y. Zhu, D. A. Muller, X. X. Xi, D. G. Schlom, D. A. Bonnell

↗ http://dx.doi.org/10.1063/1.4746081   ⌄ Actions

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Monodisperse alginate microgel formation in a three-dimensional microfluidic droplet generator

Meng Lian[1], C. Patrick Collier[2], Mitchel J. Doktycz[1,2], and Scott T. Retterer[1,2,3]

[1] Biosciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, USA
[2] Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, Tennessee 37831, USA
[3] Department of Electrical Engineering and Computer Science, University of Tennessee Knoxville, Knoxville, Tennessee 37996, USA

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Droplet based microfluidic systems provide an ideal platform for partitioning and manipulating aqueous samples for analysis. Identifying stable operating conditions under which droplets are generated is challenging yet crucial for real-world applications. A novel three-dimensional microfluidic platform that facilitates the consistent generation and gelation of alginate-calcium hydrogel microbeads for microbial encapsulation, over a broad range of input pressures, in the absence of surfactants is described. The unique three-dimensional design of the fluidic network utilizes a height difference at the junction between the aqueous

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Primary Cilium-Dependent and -Independent Hedgehog Signaling Inhibits p16INK4A

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Summary | Comments (0)

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Authors

Cleo L. Bishop✉, Ann-Marie H. Bergin, Delphine Fessart, Viola Borgdorff, Elizabeth Hatzimasoura, James C. Garbe, Martha R. Stampfer, Jim Koh, David H. Beach See Affiliations

Highlights

- Genome-wide siRNA screen for p16 regulators identifies the Hedgehog pathway
- Hedgehog and Wnt protein ligands inhibit p16 expression
- GLI2 mediates Hedgehog signaling by direct binding to the p16 promoter
- Hedgehog suppression of p16 by primary cilium-dependent and independent mechanisms

Article

Cell
PRESS

Primary Cilium-Dependent and -Independent Hedgehog Signaling Inhibits p16[INK4A]

Cleo L. Bishop,[1,*] Ann-Marie H. Bergin,[1,4] Delphine Fessart,[1,4] Viola Borgdorff,[1] Elizabeth Hatzimasoura,[1]
James C. Garbe,[2] Martha R. Stampfer,[2] Jim Koh,[3] and David H. Beach[1]
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[4]These authors contributed equally to this work
*Correspondence: c.l.bishop@qmul.ac.uk

SUMMARY

In a genome-wide siRNA analysis of p16[INK4a] (p16) modulators, we identify the Hedgehog (Hh) pathway component SUFU and formally demonstrate that Hh signaling promotes mitogenesis by suppression of p16. A fragment of the Hh-responsive GLI2 transcription factor directly binds and inhibits the *p16* promoter and senescence is associated with the loss of nuclear GLI2. Hh components partially reside in the primary cilium (PC), and the small fraction of cells in mass culture that elaborate a PC have the lowest expression of p16. Suppression of p16 is effected by both PC-dependent and -independent routes, and ablation of p16 renders cells insensitive to an Hh inhibitor and increases PC formation. These results directly link a well-established developmental mitogenic pathway with a key tumor suppressor and contribute to the molecular understanding of replicative senescence, Hh-mediated oncogenesis, and potentially the role of p16 in aging.

INTRODUCTION

as the rodent immune system (Janzen et al., 2006) and human kidney transplantation (Chkhotua et al., 2003). Alternatively, recovery from chemically induced pancreatic β-cell damage (Krishnamurthy et al., 2006) and reduced (or null) p16 allows improved postoperative function.

Although *p16* mRNA (Wang et al., 2005) and protein (Chen et al., 2007) are unstable and therefore subject to modulation, regulation at the level of gene expression has been more extensively investigated. *p16*, together with the closely linked *Arf* and *p15* genes, are inhibited by two polycomb repressive complexes, the components of which include BMI1, CBX7, CBX8, MEL-18, EZH2, and SUZ12 (Gil and Peters, 2006). Individual transcription factors that directly control p16 expression include ETS1, Id, β-CATENIN (CTNNB1), and recently MEOX2 (GAX) (Irelan et al., 2009). However, with the exception of ETS1-mediated p16 induction by the RAS/RAF/MEK cascade during oncogenic hyperstimulation (resulting in oncogene-induced senescence) (Serrano et al., 1997), there is a conspicuous lack of understanding of the broader physiological pathways that mediate postnatal derepression of p16.

This issue is exemplified by the phenomenon of premature expression of p16 in tissue culture. With the exception of embryonic stem cells, essentially all primary mammalian cells undergo decay of proliferative capacity (replicative senescence) upon repeated passage (Hayflick, 1965). In the great majority of

Service 3. Text Mining Using CrossRef's Prospect Service

The Issue

- Researchers are increasingly interested in text and data mining (TDM) published scholarly content.

- Both Researchers and Publishers find it impractical to negotiate multiple bilateral agreements.

- All would benefit from technical standards to enable TDM (APIs and data representations).

The Idea

- CrossRef's Prospect service provides:
  - Common API
    used by researchers to access the full text of content identified by CrossRef DOIs across publisher sites regardless of their business model.
  - License Registry
    - transparently shows what terms apply
    - provides "click-through" agreement of TDM licenses if needed

Service 3. Text Mining using CrossRef's Prospect Service

Publisher

Journal of Psychoceramics

1. Deposits license and full text URIs for Content Negotiation

3. Grants full text access based on researcher's subscription rights

2. Checks researcher's API token to ensure they have agreed to T&Cs

crossref / prospect

Assigns API Token to researcher

Updates researcher's API token to show they have agreed to T&Cs

Presents licenses to researcher in "one stop shop"

Handles DOI Content Negotiation to get researcher to machine-readable content

PDF XML DOI

Researcher

2. Registers with Prospect using ORCID and receives a Prospect API Token

iD

3. Reviews and agrees to publisher license(s). If content is OA researcher goes straight to step 4.

4. Requests full text using DOIs, Prospect API token and Content Negotiation

1. Identifies articles of interest using preferred discovery service

Service 4. Digital Preservation with Agency Controlled Triggers

The STM publishing and library communities have collaborated for nearly two decades to build systems for archiving and long-term preservation of scholarly content in digital formats.

1) Preservation Agreements (Publishers ⇔ Archives)
   CHORUS participants must have preservation agreements covering all the titles in which articles from agency-funded research appear

2) Archival Metadata
   CHORUS needs to document the archiving arrangements and make that visible in the dashboard

3) Trigger Terms & Conditions
   Agencies want be involved in specifying trigger conditions
   CHORUS may develop a standard modification to the archiving agreements
   All publishers would need to execute amendments to their archiving agreements
   CHORUS will maintain dashboard to monitor status

Government maintained or other 3rd-party dark archive
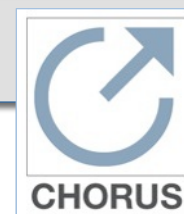
CHORUS Trigger Events

- **Publisher No Longer in Business** - The publisher is no longer in business or is no longer in the business of publishing content or providing access to previously published content and there are no successor interests or reversions or transfers of rights;

- **Title No Longer Offered** - The publisher has stopped publishing and is no longer providing access to the content and there are no successor interests or reversion or transfer of rights;

- **Back Issues No Longer Available** - The publisher has stopped offering or providing access to some or all of the back issues of the content and there are no successor interests or reversion or transfer of rights; or

- **Catastrophic Failure** - While still publishing content, the publisher is not able to provide access to the content electronically due to technical or similar catastrophic failure.

- **Article No Longer Accessible** – Full text is inaccessible to the public.

Digital Preservation Use Cases

DRAFT

1. Publisher closes public access to Public Access article (post-embargo) (for whatever reason)

Solution: CHORUS triggers the lighting of the article based on agency criteria

1. CHORUS Alerts are sent to publisher and agency
2. Agency contacts publisher to determine cause and impact (email, phone, etc.)
3. If not resolvable, Agency and/or CHORUS triggers the lighting of the article
4. Agency and/or CHORUS instructs Host Archive to make article publicly accessible
5. Agency redirects links for that article on their portal system to Host Archive

2. Publisher reopens public access to Public Access article (post-embargo)

Solution: CHORUS triggers the darkening of the article based on agency criteria

1. CHORUS Alerts are sent to publisher and agency
2. Agency confirms access
3. Agency and/or CHORUS triggers the darkening of the article
4. Agency and/or CHORUS instructs Host Archive to make article inaccessible
5. Agency redirects links for that article on their portal system back to publisher URL via CrossRef
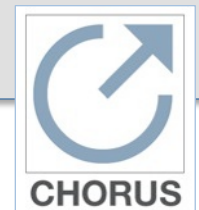
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Digital Preservation Pilot Phase 1 (September 2013)

- Agreements between:
  1. CHORUS and Pilot Publishers
     – including requirement to supply PDFs to Host Archive Service (for files currently publicly accessible and in pilot)
  2. CHORUS and Host Archive Service (e.g., Deep Web)
  3. CHORUS and Agency (e.g., DOE)

- Technical Options

  Ingest

  A. Pilot publishers send PDFs (currently publicly accessible) directly to Host Archive Service

  or

  B. Pilot publishers instruct ingestion service (CLOCKSS, Portico) to send relevant PDFs directly to Host Archive Service

Digital Preservation Pilot Phase 2 (January 2014)

CHORUS will continue to work with agencies and existing digital preservation services such as CLOCKS and Portico to determine whether the existing operational processes between publishers and these archiving services can be incorporated into the CHORUS system to increase efficiency while still giving agencies the needed level of control over trigger events.

Full Text Access & Auditing Post Embargo

Researchers & Public → Wants to read → DOI/URL → Publisher Landing Page → Publisher Access Control → HTML / PDF → Publisher Presentation Site

Government Agency → Wants to audit → DOI/URL → Audit accessibility and archiving against publisher agreed rules

Government Agency → Wants to index → DOI/URL

Hosting Archive Service → Wants to archive → DOI/URL → Ingestion Service

Publisher Content Management Site: XML & components / PDF
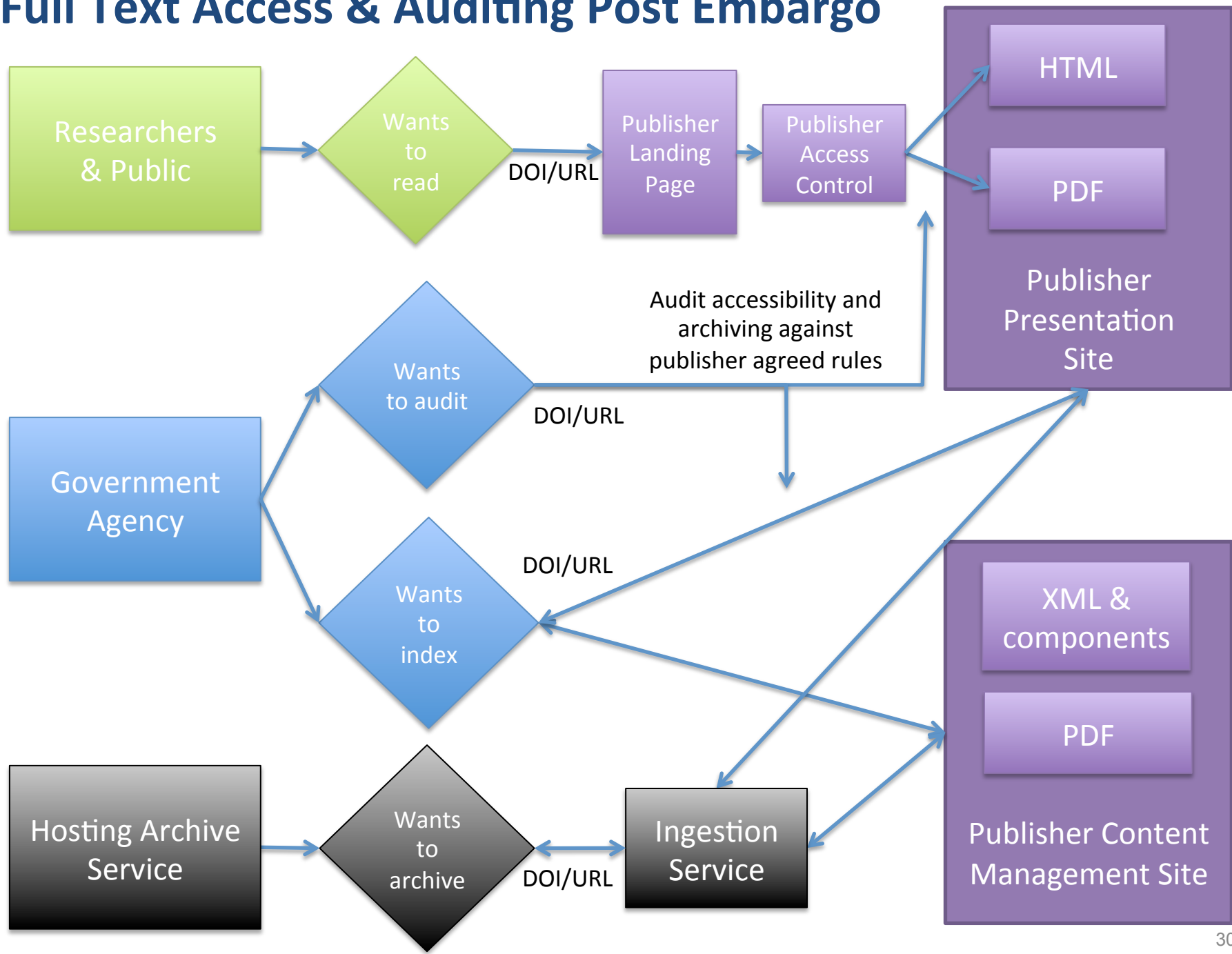
Next Steps

What Do Publishers Need To Do?

- Become a member of CHORUS
- Become a member of CrossRef
- Sign up for FundRef as part of CrossRef membership
- Submit Agency Related data to FundRef for all new content
- Send License and Embargo data to CrossRef LicenseRef for all new content
- Deposit full text URIs with CrossRef Prospect
- Sign CHORUS Digital Preservation Agreement
- Send relevant content to host archive service
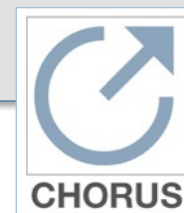
How Can Agencies Participate?

- Participate in the CHORUS discussion and development

- Sign CHORUS Digital Preservation Agreement

- Use CHORUS and FundRef systems (websites or APIs)

Launching Pilot in September

- Finalize and execute agreements
- Add more publisher content
- Further define KPIs for dashboard
- Fully integrate with DOE PAGES
- Streamline publisher interfaces to CHORUS and FundRef
- Streamline feeds to archiving services

- Events
  - September 30 - Pilot Soft Launch
  - October 8 - Pilot General Launch - STM Annual Mtg in Frankfurt, Germany
  - TBD - PAGES / CHORUS Launch at OSTI in Oak Ridge, Tennessee
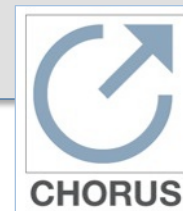
Any questions?

Howard Ratner

www.chorusaccess.org
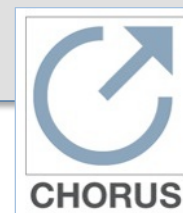
Appendix

Clearinghouse for the **Open Research** of the United States

Steering Committee

Scott Delman, ACM

Fred Dylla, American Institute of Physics

Patrick Kelly, John Wiley & Sons

Thane Kerner, Silverchair

Susan King, American Chemical Society (Chair)

Niko Pfund, Oxford University Press

Advisors

Ed Pentz, CrossRef

Howard Ratner, CHORUS

Joe Serene, American Physical Society

John Tagler, PSP/AAP

David Weinreich, PSP/AAP

Alicia Wise, Elsevier

Fran Zappulla, IEEE
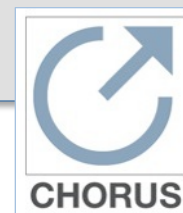
Technical Working Group

Thane Kerner, Silverchair (co-chair)

Howard Ratner, CHORUS (co-chair)

Geoffrey Bilder, CrossRef

Liz Crellin, Oxford University Press

Paul Dlug, American Physical Society

Mark Doyle, American Physical Society

Gerry Grenier, IEEE

Wayne Graves, ACM

David Martinsen, American Chemical Society

Chris McMahon, American Institute of Physics

Chris Shillum, Elsevier

Evan Owens, American Institute of Physics

Craig Van Dyck, John Wiley & Sons

John Walker, John Wiley & Sons

Advisors

Mark Martin, Office of Scientific and Technical Information, US Department of Energy

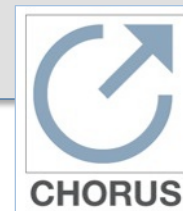# Supporting Organizations (August 28, 2013)

Publishers

ACM

Acoustical Society of America

American Association for the Advancement of Science

American Association of Anatomists

American Association for Cancer Research

American Association of Physicists in Medicine

American Association of Physics Teachers

American Astronomical Society

American Chemical Society

American Crystallographic Association, Inc.

American College of Chest Physicians

American College of Physicians

American Dental Association

American Geophysical Union

American Institute of Aeronautics and Astronautics

American Institute of Biological Sciences

American Institute of Physics

American Mathematical Society

American Meteorological Society

American Medical Association

American Nuclear Society

American Physical Society

American Physiological Society

American Psychiatric Publishing

American Psychological Association

American Society of Agricultural & Biological Engineers

American Society of Civil Engineers

American Society of Mechanical Engineers

American Society for Microbiology

American Society of Plant Biologists

American Speech-Language-Hearing Association

Association for Research in Vision and Ophthalmology

AVS: Science & Technology of Materials, Interfaces and Processing

Biophysical Society

Botanical Society of America

BMJ

Columbia University Press

Duke University Press

Ecological Society of America

Elsevier

Emerald Group Publishing Limited

The Endocrine Society

Entomological Society of America

Fabricators and Manufacturers Association, International

Genetics Society of America

Human Factors and Ergonomics Society

IEEE

iMedPub. Internet Medical Publishing

Institute of Physics Publishing

Journal of Bone and Joint Surgery

Journal of Rehabilitation Research and Development

Lynne Rienner Publishers, Inc.

Materials Research Society

McGraw-Hill

Mycological Society of America

New England Journal of Medicine

The Optical Society

Oxford University Press

The Physiological Society

The Royal College of Psychiatrists

The Royal Society

Royal Society of Chemistry

Society for the Advancement of Materials on Process Engineering

Society for the Study of Reproduction

Springer Science+Business Media LLC

Taylor & Francis

Thieme Publishers

University of Chicago Press

John Wiley & Sons

Wolters Kluwer Medical Research

Service Providers and Other Organizations

Association of Learned and Professional Society Publishers

CrossRef

DC Principles Coalition

International Association of Scientific, Technical and Medical Publishers (STM)

Publishing Technology

Silverchair Science+Communications, Inc.

CHORUS

Key Questions for Publishers

Q: Why should publishers offer to bear the majority of the costs?

A: Because this effort is an extension of what publishers do everyday.

Nearly all required components for the CHORUS project use communication protocols and infrastructure that the STM publishing industry and CrossRef already have in place, including:

- article acquisition
- author communications
- XML translation
- search term tagging
- CrossRef bibliographic linking
- online hosting
- access rights
- long term archiving and preservation

CHORUS

Key Questions for Publishers continued

Q: Why are publishers willing to underwrite the set-up and maintenance of this system if we host the public versions of the articles on our platforms?

A: Such a distributed system would direct web traffic to our sites for public access; counterbalances the risk to maintenance of subscription revenue if free versions available on a single or multiple agency repository were emphasized.

CHORUS