Collaborative and Innovative Publishing for Environmental and Sustainability Science

INAUGURAL DOMAINS:

Atmospheric Science
Earth & Environmental Science
Ecology
Ocean Science
Sustainable Engineering
Sustainability Transitions

ELEMENTA
Science of the Anthropocene

A new, nonprofit, open-access, multidisciplinary journal aiming to facilitate scientific solutions to the challenges presented by this era of accelerated human impact.

Open science for public good

INAUGURAL INSTITUTIONS:

Dartmouth
Georgia Institute of Technology
University of Colorado Boulder
University of Michigan
University of Washington

The Dartmouth College Library (DCL) is a technology and production partner in the distributed editorial, peer review, and publishing platform work that supports this enterprise. As an innovative publishing program, *Elementa* provides the infrastructure on which to build a collaborative interdisciplinary scholarly publication to help meet sustainability challenges by integrating systems thinking, actionable research, and multiple forms of expression.

SUSTAINABILITY PROGRAM SUPPORT

Elementa supports Dartmouth's sustainability initiatives in teaching and research: "We need to develop and promote highly respected journals that encourage interdisciplinary, innovative, and rigorous contributions to the new knowledge that can drive sustainability transitions in the "real world" of economic realities, human motivation, cultural context, power, and politics" (Kapuscinski & Peart, AAAS Annual Meeting 2013).

JATS XML-DARTMOUTH

Developed XML specifications; updates, i.e. to identify cross domain articles; XML for article metadata that comes from the Aries article management system

Who: In Library expert on XML

- Mulberry Technologies, Inc. later in the project
- Production Manager for XML for transfer of information about the article
- Content available in : HTML, PDF, EPUB3, Mobipocket, XML, and JSON

CONCEPT AND TIMELINE

BioOne proposal fall 2011 included:

New business model

Knowledge domains addressing climate change and sustainability

Subject areas not well covered in OA journals

Library partners for campus based publishing; collaborators from the start

BioOne provides capital, project management, budget, marketing

Library leadership helps recruit EICs, provides connection to campus, contributes scholarly publishing expertise, embraces opportunity

Policies – publishing, editorial, access and more

Dartmouth College Library becomes publishing partner 1/2012

Launch of public project site 2/2013

First articles 12/2013

EICs AND DOMAINS

- EICs recruited by library leaders and liaisons working with faculty
- Domains evolved through editors discussion into the focus on the Anthropocene, further refined i.e. Sustainability Transitions
- Face to face meetings built effective working relationships, refined domains and deepened understanding of OA

EDITORIAL AND PRODUCTION DARTMOUTH & BIOONE

- Aries Editorial and ProduXion Managers
- Workflows and configuration
- Requirements of 6 knowledge domains
- Training and support for EICs; in person meetings with EICs and editorial board members
- Iterative process- feedback from authors, editors, reviewers etc. results in changes to the configuration

Who: • 1 FTE Production Manager hired April 2013 in DCL

- Close consultancy with an expert in the system
- INNODATA for Production

PUBLISHING PLATFORM, WEB SITE, AND DESIGN - DARTMOUTH & BIOONE

Publishing Platform uses Ambra software(Java) suite:

- HTML: Spring, Struts, and FreeMarker templating system; Tomcat server
- Storage and retrieval of Java objects- Hibernate and MySQL
- Apache Solr and Apache Lucene ; indexing set-up in Ambra
 - Changes : NLM 2.3 to JATS 1.0 ; UI elements for article and author
 - HTML5 user interface to enable responsive design
 - Offers download of a wide range of formats and images
 - Altmetrics.com for posting metrics
- Hosting all figures, tables, graphs, and videos locally on DCL servers
- Hosting a copy of Ambra in Amazon Web Services
 - Locally hosted copy as test platform and back-up

Site Content:

- WordPress to present policies , marketing materials, Special Features soon
- Carefully curated with content being provided from the WordPress site
- Page design integrates content from both Ambra and WordPress

Who: 1 FTE Senior Programmer hired Feb. 2013 in DCL

Working with PLoS program team
Responsive web design by ripe

Background image: NASA Earth Observatory Image of the Day:
2009 Ends Warmest Decade on Record

<http://earthobservatory.nasa.gov/IOTD/view.php?id=42392>

OUTCOMES FOR THE DCL PUBLISHING PROGRAM

- Potential to use the publishing and editorial infrastructure for other journals
- Deep learning about the requirements for an effective editorial board
- Best practices and policies in the evolving world of library based publishing
- Meet needs of stakeholders in sustainability community

www.elementascience.org

Barbara DeFelice
Dartmouth College Library
LPC Forum March 2014

Acknowledgements:
Elementa Team
Dartmouth College Library

Elementa: Science of the Anthropocene

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