



The Earth Institute at Columbia University

Mobilizing the Sciences and Public Policy to Build a Prosperous and Sustainable Future



*World Data Center for Human
Interactions in the Environment*

Geospatial Electronic Records Website Development

Robert R. Downs

Center for International Earth Science Information Network

Columbia University

www.ciesin.columbia.edu

Presentation at the Meeting of the
Metropolitan New York Library Council

Special Interest Group on Digitization

November 14, 2005

Geospatial Electronic Records Website Development

- Project Overview
- Website Purpose
- Website Development
- User Feedback and Management
- Current Content and Organization

The project:

Managing and Preserving Geospatial Electronic Records

- Investigated requirements for state, county, and municipal agencies to manage and preserve geospatial data and related electronic records, especially those generated by GIS software.
- Funded by the National Historical Publications and Records Commission (NHPRC) of the National Archives and Records Administration (NARA).

Goals for Project, Managing and Preserving Geospatial Electronic Records

- Identify and recommend practical and appropriate policies, techniques, standards, and practices to manage geospatial electronic records (GERs) to support their long-term retention and dissemination and to facilitate their usability and utility as important information resources of significant historical interest

CIESIN Project Team

- **Robert S. Chen**, Deputy Director of CIESIN and Senior Research Scientist at Columbia University
- **Robert R. Downs**, Senior Digital Archivist and Columbia University Senior Staff Associate Officer of Research
- **Mark Becker**, Geospatial Section Manager and Senior Staff Associate
- **Branko Djapic**, Database Management Systems Analyst
- **Annie Gerard**, CIESIN Web Designer
- **John Mickelson**, GIS Specialist and Staff Associate
- **John Scialdone**, Senior Metadata Specialist

Project Advisory Board and Workshop Program Committee

- **Cheryl Benjamin**, Standards/Data Coordination NY State Cyber Security & Critical Infrastructure Coordination
- **Kevin Glick**, Electronic Records Archivist, Yale Univ. Sterling Memorial Library
- **Bill Guthe**, Educational Tech Center GIS Analyst, Princeton University
- **Geoffrey Huth**, Mgr, Records Services Development NY State Education Dept, Archives
- **Sally Johnson**, Policy Analyst for Statewide Planning Program, State of Rhode Island
- **Patrick McGlamery**, Library Liaison to Geography, University of Connecticut
- **Jennifer O'Neill**, E-Government & GIS Specialist, NY State Education Dept, Archives
- **Theresa Pardo**, Deputy Director, Center for Technology in Government, University of Albany
- **Robert Sandev**, GIS Officer, Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs, United Nations
- **Doug Schuetz**, GIS Director, Rockland County Planning
- **Bridget Sisk**, Chief, Archives & Records Mgt Section, United Nations Secretariat
- **Terri Spies**, GIS Specialist, NYC Dept of Environmental Protection
- **Larry Thornton**, Bureau Chief, Geographic Information and Analysis, NJ Dept. of Environmental Protection
- **Sam Wear**, GIS Director, Westchester County

Major Project Deliverables

- Data Model for Managing and Preserving GERs
- Workshop on Managing GERs and Report
- Guide to Managing GERs
- Research paper on Managing GERs
- Website to Disseminate Resources on Managing GERs

Purpose of Geospatial Electronic Records Website

- Disseminate Resources on Managing GERs
 - Including data model, workshop report, guide, and links to relevant instructional and technical resources.
- Distribute Contents without Charge
- Website Audience: Communities Interested in Managing and Preserving GERs
 - (e.g., geospatial data librarians, geographical data product developers, archivists, electronic records managers and other institutional recordkeepers)

Development of Geospatial Electronic Records Website

- Community Participation
- Iterative Development Process

Community Participation

- Review of Current Practices, Community Initiatives, and Literature
- Relevant Literature and Standards Review
- Advisory Board Recommendations
- Workshop Recommendations
- Needs Assessment Study Recommendations
- Comments from Participants at Project Presentations
- Project Team Review and Suggestions
- Anonymous Website Reviewer Comments
- Email Messages from Website Users

Iterative Website Development

- Staged implementation of GER Website
- During each stage, reviews, comments, and suggestions provided guidance for subsequent development stages

Systematic Procedure for Web Site Development within Each Stage

- Alpha development, review, and approval
- Beta development, review, and approval
- Copy Beta web site to Production for Public Dissemination

Web Design and Composition Tools

- Used text editors, HTML, Javascript, and DreamWeaver® for design, layout, and content editing during each stage of implementation
- Used text editors and Contribute® for subsequent content composition and incremental editing

DreamWeaver and Contribute are trademarks for Macromedia® products

Pre-Workshop GER Web Site Implementation

- Decided to initially develop site to facilitate participants of “Extending the Boundaries: A Workshop on Managing and Preserving Geospatial Electronic Records”
 - (Convened May 13, 2004, Palisades, NY) .
- Purpose: Inform Invitees about Workshop
- Initial page drafts and content developed by project team and presented to project Board for review.
- Composed content for each page of initial site and gave it to Web Designer to produce mockups for subsequent review and revision.
- Resulting Content: Workshop Announcement, Directions, & Project Overview

Revisions for Post-Workshop Implementation

- Purpose: Disseminate Workshop Agenda, Participants' List & Presentations
- Method: Enhanced initial design to include documents
- Resulting Content: Workshop Presentations & Project Description

Implementation and Formal Launch for Project Completion

- Purpose: To Support Community in Managing and Preserving Geospatial Data and Related Electronic Records
- Method: Revised Web Site Design to Include Aspects of Initial Design as Sections
- Result: Featured resources and Categorized Lists of Resource References with Links

User Feedback & Management

- Survey Users and Provide Capabilities for Feedback from Community of Users
- Continuous Monitoring of Community Developments and User Comments Received
- Enhance Website to Reflect Community Development and User Feedback

Requesting Feedback From Website Users

- Online Anonymous Evaluation Survey
- Contact Link to Receive W-mail Comments

Continuous Monitoring of Community Developments and Feedback

- Purpose: Continuous improvement to reflect feedback
- Method: Monitor survey and e-mail from site for potential improvements
- Result: Ongoing – primarily received suggestions for content improvements

Enhancements Reflecting Community Feedback

- Purpose: Improve site based on feedback received to date
- Method: Analyze feedback, obtain new content, apply incremental modifications to alpha site using Contribute, review changes, move to beta and production sites
- Result: Article and link contributions, editorial corrections

Types of Feedback on Website

- Received and accepted submission to disseminate paper
- Received and accepted recommendations to reference and link to existing resources
- Received recommendations to reference and link to future resources
- Received survey responses (few responses to date)
- Received general comments

Citations to Website

- PADI website (Preserving Access to Digital Information) described and linked to the project
 - On the GIS webpage, accessible at <http://www.nla.gov.au/padi/topics/432.html>
 - On the Projects and Cases webpage, accessible at <http://www.nla.gov.au/padi/format/case.html>
 - On the National Strategies webpage, accessible at <http://www.nla.gov.au/padi/topics/68.html>
- Guide Summarized on What's New in Digital Preservation (Issue 11, June-September 2005) published online by the Digital Preservation Coalition and the Preserving Access to Digital Information (PADI) gateway, accessible at <http://www.dpconline.org/graphics/whatsnew/issue11.html>
- Data Model Cited and Discussed on GeoPreservation Listserver

GER Website Hits & Visits: Mid-2004 to Mid-2005

Domain Type	Hits	Percent of Hits	Visits
Commercial	6388	32.72%	4170
Education	8569	43.89%	433
Network	2932	15.01%	429
Government	1044	5.34%	63
Organization	541	2.77%	31
Military	45	0.23%	6
International	2	0.01%	1
Total	19521	100%	5133

Current Content and Categories

- Website Sections
- Featured Content
- Resource Categories

Website Sections

- GER Home
- Bibliographic References
- About this Project
- Feedback
- Contact Us

Featured Content

- Guide to Managing Geospatial Electronic Records
- Documents
 - Data Model for Managing and Preserving Geospatial Electronic Records
 - Management and Preservation of Geospatial Data
 - Project Presentations and Publications
- Workshop Materials
- Website Evaluation Survey

Resource Categories

- Relevant Standards
 - Digital Preservation and Electronic Records Management
 - Geospatial Metadata
 - Metadata
- Relevant Guidelines
 - Geospatial Metadata
 - Preservation Metadata
 - General Metadata
 - File Format Registries
 - Intellectual Property
 - Example Geospatial Data Management
- Other Topics
 - Geospatial Data Confidentiality
 - Federal Programs and Committees
 - Professional Societies
 - Relevant Projects
 - Proceedings and Reports
 - Training Opportunities
 - Open Source Digital Preservation Software
 - Listserv Groups

Future Enhancements

- Improve website with additional content as it is recommended
- Analyze survey responses when sufficient number of responses have been received
- Develop a database of references and links



The Earth Institute at Columbia University

Mobilizing the Sciences and Public Policy to Build a Prosperous and Sustainable Future



*World Data Center for Human
Interactions in the Environment*

Geospatial Electronic Records Website

www.ciesin.columbia.edu/ger



The Earth Institute at Columbia University

Mobilizing the Sciences and Public Policy to Build a Prosperous and Sustainable Future



*World Data Center for Human
Interactions in the Environment*

Thank you!

rdowns@ciesin.columbia.edu