

Web-at-Risk Project

A Distributed Approach to Preserving our Nation's Political Cultural Heritage

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Web-at-Risk Goal

Web Archiving Service (WAS):

Develop web archiving tools that will be used by libraries to capture, curate, and preserve collections of web-based government and political information



San Diego Supercomputer Center Computer Science Dept. Stanford University

Sun Microsystems

The Library of Congress

Martha Anderson, Agreement Officer Technical Representative

California Digital Library

(Lead Partner)

Dan Greenstein, P.I.
Peter Brantley, Director of Technology
Lynne Cameron, Manager, Ingest Group
Patricia Cruse, Director
John Kunze, Technical Lead
Shifra Raffel, Web Archive Programmer
Tracy Seneca, Web Archive Coordinator
Stu Sugarman, Arch. and Insfrast. Manager

University of North Texas

Cathy Hartman, Fellow, Texas Center for Digital Knowledge Kathleen Murray, Assessment Analyst

New York University

David Ackerman, Executive Director of eServices Rasan Rasch, Web Archive Programmer

Selection and Curator Agents

Arizona State Library New York University Stanford University

University of California: UC Berkeley, UC Davis, UC Irvine, UCLA, UC Riverside, UC Santa Barbara, UC Santa Cruz, UC San Diego
University of North Texas





Four overlapping paths of activity:

- Content Identification and Selection CISA)
- Content Ingest, Retention and Transfer (CIRT)
- Content Harvest and Analysis (CHA)
- Partnership Building (PB)







Content Identification, Selection, & Acquisition

- Needs assessment: surveys, focus groups and interviews
 - Curator (librarian) needs
 - End user needs
- Analysis of test crawls based on curators' content
- Case studies, best practices, and collection development guidelines







Content Ingest, Retention, and Transfer

- Modify CDL's Digital Preservation Repository
- Data model for Web Archive Digital Objects (WADO)
- Development and testing of remote replication strategies







Content Harvest and Analysis

- Tools to conduct and support curators' web crawling: Curator User Interface
 - Crawler
 - Collection Management
 - Reports
 - Export/Import Handler
- File formats for web crawling: WARC







Partnership Building

Develop model agreements (partner MOUs)

Assess costs of sustaining a distributed approach to web archiving





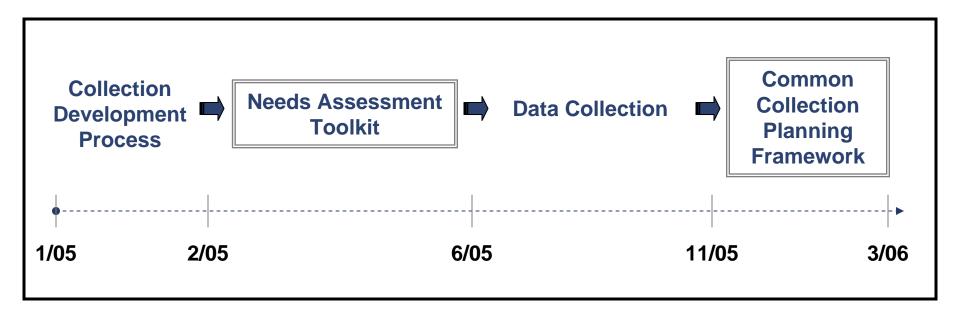
CISA Path: Needs Assessment

- Activities
- Status
- III. Future Activities





Needs Assessment Activities







Collection Development

Policy Setting	Political mandates, organizational mission, financial parameters, & technical capabilities.			
	Selection	Factors: Focus of the collection, unit of selection, web boundaries, copyright obligations, and authenticity of materials.		
	Acquisition	Requirements for crawling tools: Global or selective capture.		
	Description	Baseline metadata: Machine-generated		
		Enriched metadata: Specific to an organization; both human-generated & machine-generated metadata.		
	Organization	Considerations: Retain or modify the organizational structure of the materials as they existed on the web.		
	Presentation	Considerations: Mirror the web at the time of their capture or selectively present (searching & browsing).		
	Maintenance	Functions: Training, hardware and software maintenance, performance optimization, backups, upgrades, & duplicate detection.		
	Deselection	Reasons: Duplication, errors, legal or social considerations.		
	Preservation	Challenges: Persistent naming, format migration and/or emulation, inventory management, volatility, replication, re-validation, & storage.		







Needs Assessment Toolkit

- Responsibilities
- **Timeframes**
- **Participants**
- Guidelines
- Consent Forms
- Instruments
 - Survey Instrument
 - Focus Group Guide
 - End User Interview Guide
 - Content Provider Interview Guide



http://web2.unt.edu/webatrisk







Data Collection Activities: 2005

		Jun	Jul	Aug	Sep	Oct
1	Survey	X	X			
2	Focus Group: National	X				Х
3	Focus Group: Local			X	Х	
4	Interviews: End Users				X	X
5	Interviews: Content Providers				X	Х





Survey Status

- Purpose
 - End Users' Needs
 - Curators' Needs
 - Functional Requirements
 - Web Crawler Tool
- Online Survey
 - 5 Sections
 - 59 Questions

- Respondents (N = 16)
 - Curatorial Partners
 - University of CA
 - New York University
 - University of North TX
 - Stanford University
 - AZ State Library









Focus Group Status

PARTICIPANTS	LOCATION	N = 44
Special & Academic Libraries	Chicago, IL	8
University of North Texas Libraries	Denton, TX	7
University of California & Stanford University Libraries	Oakland, CA	10
New York University Libraries	New York, NY	8
Public, State, & Academic Libraries	Washington, DC	11





Interview Status



INTERVIEWS	PARTICIPANTS	PURPOSE	
Face-to-Face	Researchers (N = 9–15) – Faculty – Students	End User Access Needs	
Telephone	Web Publishers (N = 6-9) - Government Agencies • State, Regional, & Local - Political & Labor Organizations	NeedsConcerns	





CISA: Future Activities

Collection Development Overview





- Survey
- **Focus Groups**
- Interviews

6/05





Data Analysis and Demographic Analysis



2. Common Collection Planning Framework

- Guidelines
- **Tools**

3/06

3. Collection Plans

- User needs
- **Policies**
- Goals
- Practices, etc. 7/06

Case Study Methodology and Template



5. Case Studies

- **Processes**
- **Practices**
- Goals 6/07



6. Final Report

Assessment:

- Goal achievement
- Tools
- Costs & benefits Identification:
- Best practices 9/07



- Cost & benefits
- Needs assessment tools
- Technical tools
- Best practices

6/07



Survey Data Collection I









Project Status

- Test crawls being conducted
 - Government sites provided by curators
 - Hurricane Katrina

- Rights management
 - Web-at-Risk rights management protocol





Rights Management

- 3 rights management schemes
 - A: consent assumed
 - B: consent sought
 - C: consent required
- Tools for recording rights contact activity





24 Sample Sites for Test Crawling

- 10 are .gov
 - 3 federal
 - 3 local govt
 - 4 state agencies
- 3 are .com
 - 1 of these is for a county agency
- 11 are .org
 - One .org site contains warning that material may not be reproduced in any format without permission.







Rights Oddities

- 3 different curators selected sites that are associations of local governments. Two of those (San Diego and Sacramento) are .org sites, and one (Southern California) is a .gov site.
- http://www.ocsd.com City agency with a .com address that states that all of its material is in the public domain.
- http://www.city.davis.ca.us: A city site that aggressively asserts copyright and demands permission for any reproduction.





Rights Classification

- In 5 cases, I changed the original classification of the site after I read the copyright warnings/info on the site itself.
- I determined that if I were curating these sites, I would classify their rights as follows:
 - Scheme A: Consent implied: 6 sites
 - Scheme B: Consent sought: 14 sites
 - Scheme C: Consent required: 4 sites





Crawling Tools

- Heritrix
 - Contributing code back
- WERA for display





More info:

http://wiki.cdlib.org/WebAtRisk