

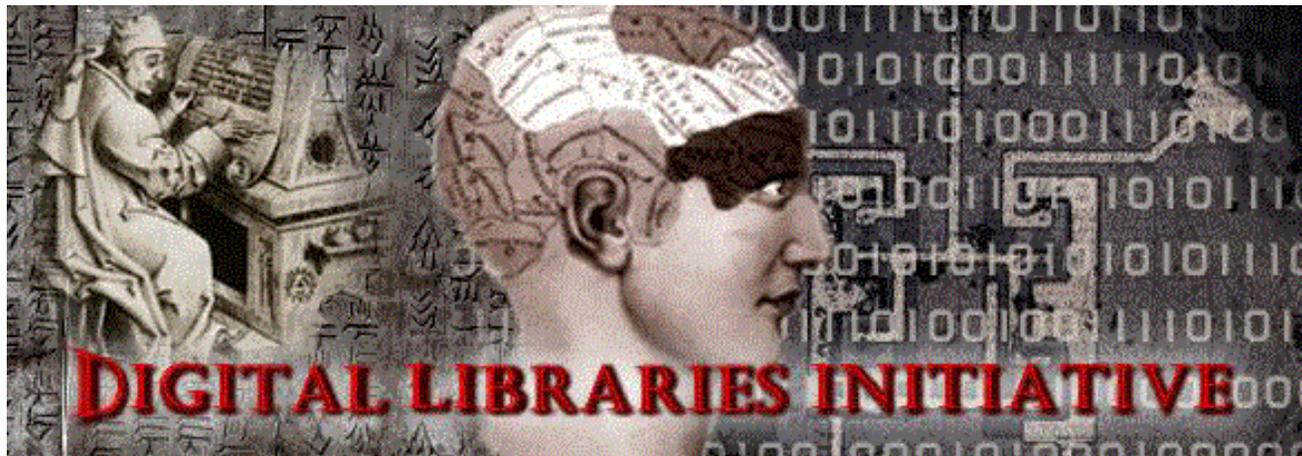
DIGITAL LIBRARIES INITIATIVE

Funded through a joint initiative of:

National Science Foundation

Defense Advanced Research Projects Agency

National Aeronautics and Space Administration



National Synchronization Home Page:

<http://dli.granger.uiuc.edu/national.htm>

Digital Libraries Initiative (DLI): Program Profile

- Six university-led projects; similar model for each
- \$24M total over four years, ending fall 1998.
(~\$1M/year per project)
- Each project required to:
 - Carry out fundamental research
 - Create a large testbed
 - Work with partners
 - Acquire substantial cost sharing (1:1 is norm)
 - Demonstrate leadership for larger community
- Cooperative agreements, not grants
- All-Project meetings every six months
- D-Lib Magazine

Digital Libraries Initiative (DLI) : Research Foci

CMU: Digital Video Libraries

- component technologies integration
 - speech recognition
 - image understanding
 - natural language processing



full-content search and retrieval of video segments

U Mich: Intelligent Agents

- software agent architectures
- DL federation
- artificial service market economies
- educational impact



new DL cross-disciplinary capabilities, perspectives and linkages

Stanford: Uniform Access

- interoperability across systems and services
- protocols & standards
- distributed object architectures
- interface design for distributed IR



uniform access, extensibility for distributed resources

Digital Libraries Initiative (DLI) : Research Foci

UCSB: GIS & Maps

- geospatially-referenced data
- content-based retrieval
- image-compression
- metadata



valuable domain resource
for geosciences research
and education communities

U ILL: Search and the Net

- large-scale information retrieval
across knowledge domains
- semantic search
- SGML
- user/usage studies



generation of topical concept spaces
based on vocabularies; new
alternatives for publishers of scientific
journals

UCB: Media Integration & Access

- new forms of “documents”
- natural language processing
- content-based image retrieval
- DBMS approaches



new models and services for multi-media
information management in the
networked world

Digital Libraries Initiative 2: Santa Fe Planning Workshop

a full spectrum of activities

promote fundamental research, content and collections development, domain applications, testbeds, operational environments, education

over a broad topical scope

address the entire DL life cycle of information and knowledge creation, dissemination, access, preservation and use in various domain, organizational and social contexts

using multi-modal efforts

allow for numerous project models, scales and durations

implemented via a modular program structure

allow Federal, public and private sector sponsors to contribute a variety of resources in different and creative ways at any point in time

... bring in new disciplines and new perspectives ; allow for different project modalities and funding mechanisms to encourage new research and educational communities to form and prosper

Comparison of DLI with DLI 2

DLI

research

broad, technology-centered

testbeds

for technology research

content/collections

donated to projects

infrastructure

limited testbed development

context

primarily user evaluation

Information:

<http://dli.grainger.uiuc.edu/dli/national.htm>

DLI 2

research

refined technical scope; extend to new areas and dimensions in the DL information lifecycle

testbeds

for DL research with added emphasis on interoperability & technology integration

content/collections

increased emphasis on content, collections development and management

infrastructure

operational DLs with collections of value to domain and other “communities” of users

context

understanding DLs in domain, economic, social, international contexts; DLs as HuCS

1994

1998

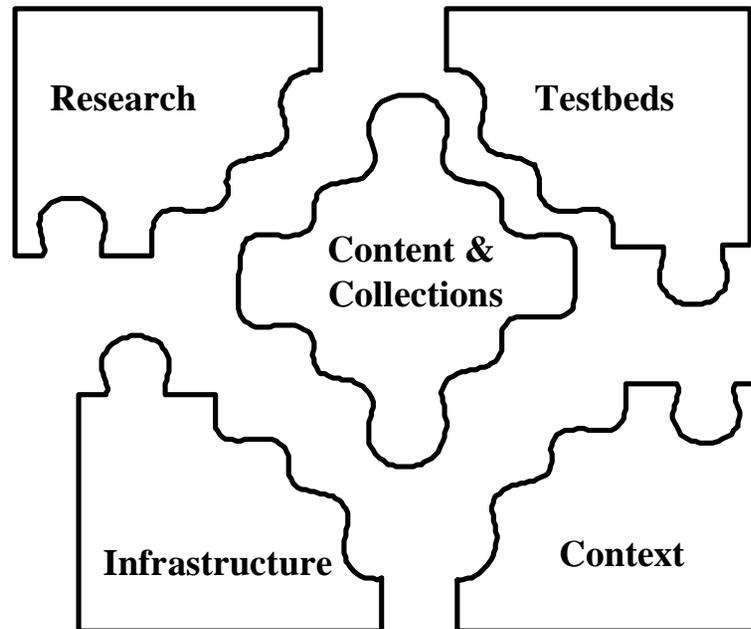
DLI 2 Sponsorship Puzzle

Challenge:

No single sponsor can fund or manage all the pieces....

Solution:

Attract sponsors with complementary goals, strengths and resources....



*Joint Sponsorship
and Collaboration*

**NSF, DARPA, NASA, NIH, LoC, Other
Federal, Public and Private Sector partners**

DLI 2 Sponsorship: Status

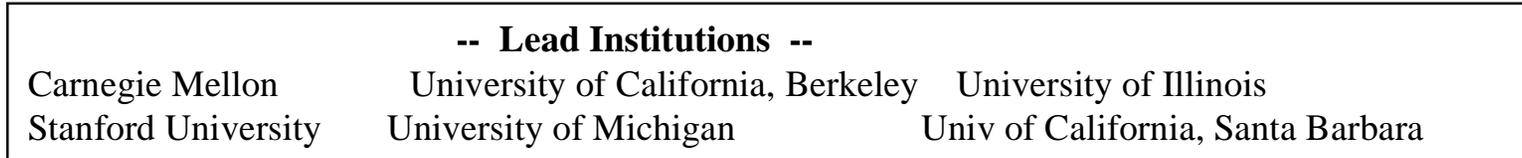
Agency/Org	expression of Interest	exploratory discussions	agreement in principle	nature of investment
NSF (CISE,SBE, EHR)	■	■	■	core funding, program management,access to collections
DARPA	■	■	■	
NASA	■	■	■	
NIH/NLM	■	■	■	
LoC	■	■	■	
NIH/NCI	■	■	■	funding, content, expertise
NA/NHPRC	■	■		
CIA	■			
NEH	■	■	■	
Mellon	■	■		targeted support, coordination, expertise
Getty	■	■		
Kellogg	■			
(others)	■			
EU/ERCIM	■	■		support for international collaboration
UK/eLIB, BBC	■			
Japan	■			
Korea	■	■		

DLI 2 Implementation Schedule

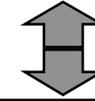
March 1997	Santa Fe Planning Workshop
April-June	Workshops to refine technical agendas (HCIS, KNI, ...)
Summer	Finalize sponsorship Draft agency memos of understanding & program announcement Obtain agency approvals
Fall	Program Announcement
Winter/Spring 1998	Review Proposals
Summer 1998	Announce Awards

Partnering Will Continue to be Key to Success in DLI 2

DLI Partners



Flow of Resources, Technologies, Knowledge, Intellectual Products



<p>Computer & Communications Companies</p> <ul style="list-style-type: none"> Digital Equipment Corp Xerox Corp Xerox PARC Intel Corp Apple Corporation Bellcore Eastman Kodak Co IBM Lockheed Interconnect Tech Corp Enterprise Integration (EIT) Bellcore Interval Microsoft Corp Bell Atlantic Network Services AT&T Hewlett Packard United Technologies Softquad BRS/Dataware Spyglass Hitachi 	<p>Publishers/Content Providers</p> <ul style="list-style-type: none"> Elsevier Science Group Encyclopedia Britannica McGraw-Hill Publishers Dialog Information Services O'Reilly WAIS Inc QED Communications John Wiley & Sons U.S. News & World Report M&T Publishing Tribune Company UMI <p>Professional Societies</p> <ul style="list-style-type: none"> American Math Society (AMA) ACM IEEE American Institute of Aeronautics and Astronautics (AIAA) American Physical Society American Institute of Physics NCGIA Association of Research Libraries 	<p>Other Universities</p> <ul style="list-style-type: none"> SUNY Buffalo Univ of Maine Univ of Arizona Open University, U.K. Univ of Wisconsin Univ of Colorado MIT Cornell Univ <p>Libraries</p> <ul style="list-style-type: none"> Project Site Univ Libs USGS Library Library of Congress California State Library Sonoma County Library St. Louis Public Library New York Public Libs <p>International Orgs</p> <ul style="list-style-type: none"> ERCIM 	<p>Primary & Secondary Schools</p> <ul style="list-style-type: none"> Project-local comm schools Fairfax County Public Schools Winchester-Thurston School Ann Arbor Public Schools Stuyvesant High School, NYC Shasta County Ofc of Edu <p>Government Agencies and Labs</p> <ul style="list-style-type: none"> DMA/CIO U S Navy USGS NASA/ARC Res Agcy of California San Diego Assn of Govts <p>Other/Non-Profits</p> <ul style="list-style-type: none"> CNRI Environmental Systems Res Inst Mellon Foundation Kellogg Foundation Getty Foundation
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