



Office of Scientific and Technical Information As It Moves into the 21st Century

U.S. Department of Energy

National Library Initiative
for
Energy, Science and Technology

Strength Through Science

PREPRINT SCIENCE

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Virtu
Energy

PREPRINT Network

EnergyFiles
Virtual Library Collection of
Energy Science and Technology



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PREPRINT SCIENCE

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PrePRINT Network





Supporting the Science

Mission



- The public invests \$7 billion annually in DOE R&D
- Principal output from department s R&D is scientific and technical information (STI)
- Ensures overall stewardship and accessibility for unclassified STI
- Oversees the Department s Technical Information Management Program
- Manages the world s most comprehensive collection of classified and sensitive energy-related information
- Operating Agent and the U.S. representative to the ETDE and INIS

Result–information delivered to the desktop, reaching thousands more people–at lower cost per person served





U.S. Secretary of Energy Bill Richardson Fermi Awards Presentation



“For science to rapidly advance at the frontiers, it must be open. And shared knowledge is the enabler of scientific progress.”





Science Resources

OSTI provides a comprehensive information approach that incorporates the three information sources that researchers use:

- Grey literature - **DOE Information Bridge**
- Journal literature - **PubSCIENCE**
- Preprints - the **PrePRINT Network**
- Digital gateway to energy sciences - **EnergyFiles**
- OSTI's vision





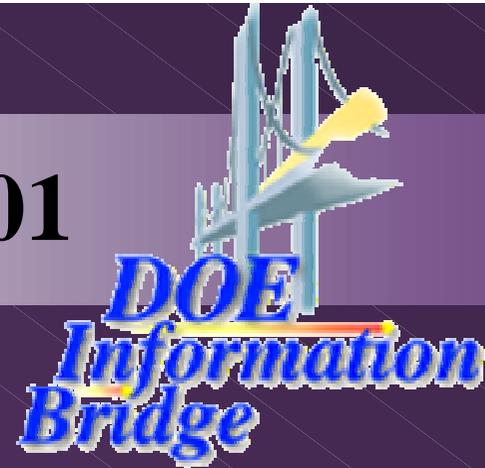
Overview

<http://www.osti.gov/bridge/>

- Released April 1998
- Includes over 55,000 full-text DOE research reports and their bibliographic records and abstracts from 1995 forward
- Provides over 4.3 million full-text pages to users in an organized, searchable format
- Enables users to access, locate, search, retrieve, and download full-text and/or bibliographic information from their desktops
- Free access provided to the public via partnership with GPO
- 14,000 full-text downloads per month



Enhancements – 2000/2001



<http://www.osti.gov/bridge/>

- Content projected to double
- Access to full-text documents via Persistent URL's (PURL)
- Capability to search full-text documents located at remote sites where research is performed
- Multiple downloading capabilities, date-range searching, statistical reporting enhancements, search results in user defined order





<http://www.osti.gov/pubscience/>

- Released October 1, 1999
- Provides users the capability to search a large compendium of peer-reviewed journal literature with a focus on the physical sciences and other disciplines of concern to the Department of Energy's R&D community
- 26 publisher partners participating with 1048 journal titles
- 1.8 million records accessible for search and retrieval
- 1 million accesses projected annually

Enhancements - 2000/2001

<http://www.osti.gov/pubscience/>



- Customizable user interface
- E-mail alert service for new journal data based on user preferences
- Query a search engine or index a site with integrated results
- Bi-directional linking with selected publishers





Overview

<http://www.osti.gov/preprint/>

- Released January 31, 2000
- A searchable gateway to preprint servers that deal with scientific and technical disciplines of concern to DOE
- Provides access to over 1000 preprint sites and more than 330,000 preprints
- Allows users to search across 24 large preprint databases via a single search interface
- 200,000 accesses projected annually



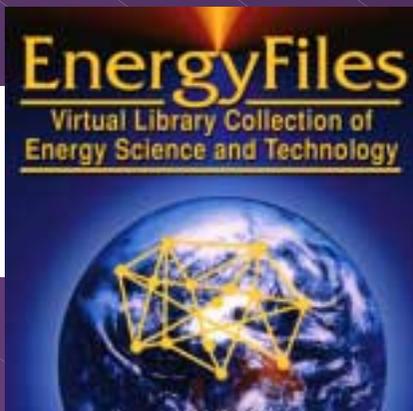
Enhancements — 2000/2001

<http://www.osti.gov/preprint/>



- Implementation of Web crawler technologies and options to improve the searching capabilities
- Enhanced searching capabilities, possibilities include additional fields, increased ability to modify searches, clustering, and reference linking
- Continued growth within each Subject Pathways section

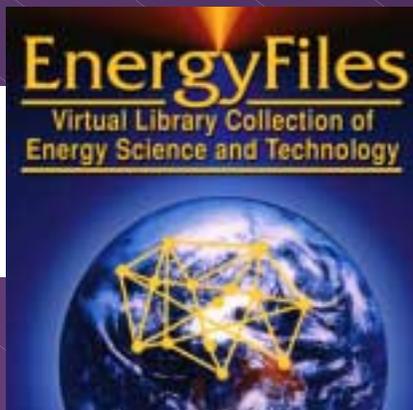




Overview

- Released May 1997
- One-stop shopping for integrated energy, science, and technology information resources (over 500 sites)
 - High quality, driven by a collection development policy
 - Geographically-dispersed, resulting from collaborations and resource sharing
- Resources include bibliographic databases, full-text, journals, and preprints
- Maximizes worldwide access at no cost to users, including researchers, educators, students, public
- Utilization of modern technology, including a cutting-edge search mechanism - provides distributed searching across decentralized, heterogeneous resources maintained by various agencies and organizations





Building on Success

<http://www.osti.gov/energyfiles/>

- EnergyFiles is highly comparable to the National Libraries at other institutions
- DOE National Library focusing on energy, science, and technology is being proposed to address Physical Sciences
- OSTI uniquely positioned to take the lead
 - 50 years experience
 - Core collection of 6.5 million items, journals, technical reports, preprints, books, and full-text images
 - Collaborations with 120 countries, other government agencies, journal publishers, and research organizations
 - Over 1.5 million users served annually



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How Federal Agencies are Sharing Their Information

U.S. Department of Energy

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Strength Through Science

- National Institutes of Health – National Library of Medicine
- U.S. Department of Agriculture – National Agricultural Library
- U.S. Department of Education – National Library of Education
- U.S. Department of Transportation – National Transportation Library
- National Science Foundation – National Science, Mathematics, Engineering, and Technology Education Digital Library (NSDL)
- Environmental Protection Agency – EPA National Library Network



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Components

U.S. Department of Energy

National Library Initiative
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Strength Through Science

- Infrastructure - using Esnet
- Content - valid recorded information regardless of its source, platform or format
- Technology - exploit and develop state-of-the-art and sophisticated new tools for organizing and retrieving information
- Science for Consumers - regionally and individually to desktops of U.S. citizens
- Science Education - highlight and build on existing science education programs
- Business Information Services - profiled alert service to inform U.S. business of recent information development and trends



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Elements

U.S. Department of Energy

National Library Initiative
for
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Strength Through Science

- Advanced Information Technology Research and Development (R&D) programs at labs
- University Grants Program
- Acquisition of electronic journals
- Digitizing the DOE collection
- Science Education
- Business Information Services - alert service
- Science for Consumers - increased local presence



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Outcomes That Will Benefit the Users

U.S. Department of Energy

National Library Initiative
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Strength Through Science

The DOE National Library Initiative will provide:

- Well organized, comprehensive resource not limited by traditional boundaries
- Relevant information, regardless of source
- Access to both historic and current information
- Practical information about energy use
- Education for future scientists and engineers
- Easy, fast, accurate navigation through collections and resources
- Remote access to scientific hardware and software
- Provisions to accommodate users with disabilities



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Benefits to the Nation

U.S. Department of Energy

National Library Initiative
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Strength Through Science

- Access to a permanent and comprehensive resource for accessing and using historic STI and current R&D
- Practical information for the consumer
- Science education resources for educators and students
- Information alert mechanism to serve industry and commerce and help them to remain competitive
- Information which helps secure a healthy and comprehensive science and technology future for scientists, engineers and the nation into the 21st century
- Better knowledge and understanding of DOE's contribution to the U.S. taxpayer



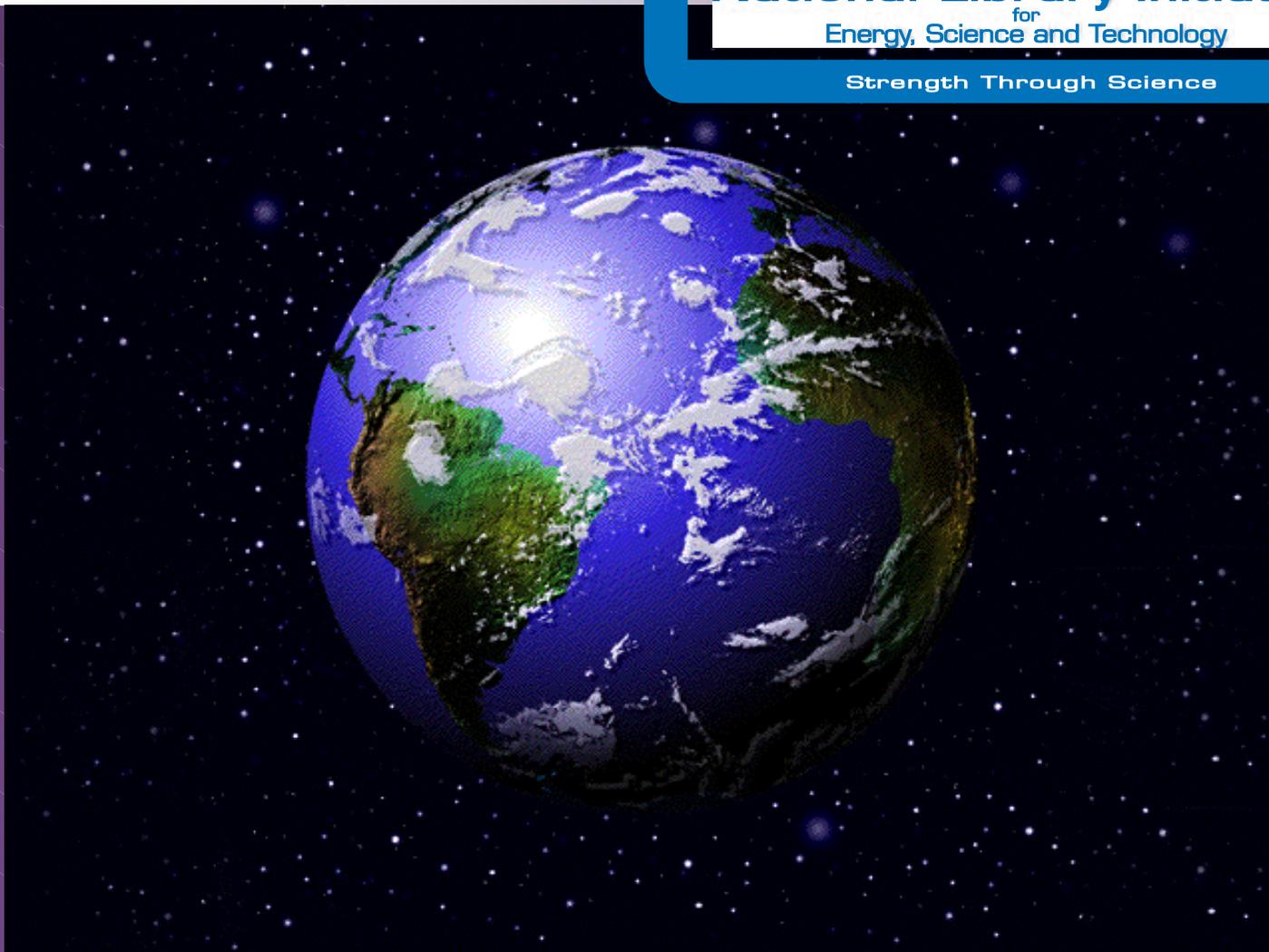
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Next Steps

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Federal R&D Project Summaries

Descriptions, Awards, and Summaries of Federally Funded Research

Find out how
your research dollars
are being spent

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Search R&D

DOE Home

OSTI Home

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Office of Scientific
and Technical
Information



The U.S. Government is accountable to the public for its annual multi-billion dollar R&D investment:

This system is a consortium of federal agencies providing R&D summaries.



Department of Energy



National Institutes of Health



National Science Foundation

Search R&D

Search across databases of all contributing agencies with a single query for quick and comprehensive results.

<http://www.osti.gov/fedrnd/>

