OSTI - Accelerating Science Information

Dr. Walter L. Warnick
Director
U.S. Department of Energy
Office of Scientific and Technical Information

Federal Depository Library Conference
Arlington, Virginia
October 21, 2008

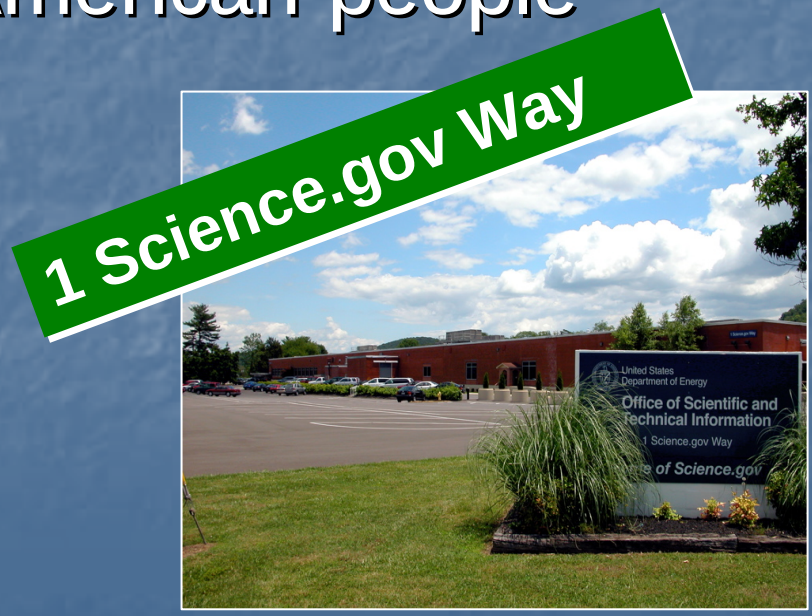
U.S. DEPARTMENT OF ENERGY

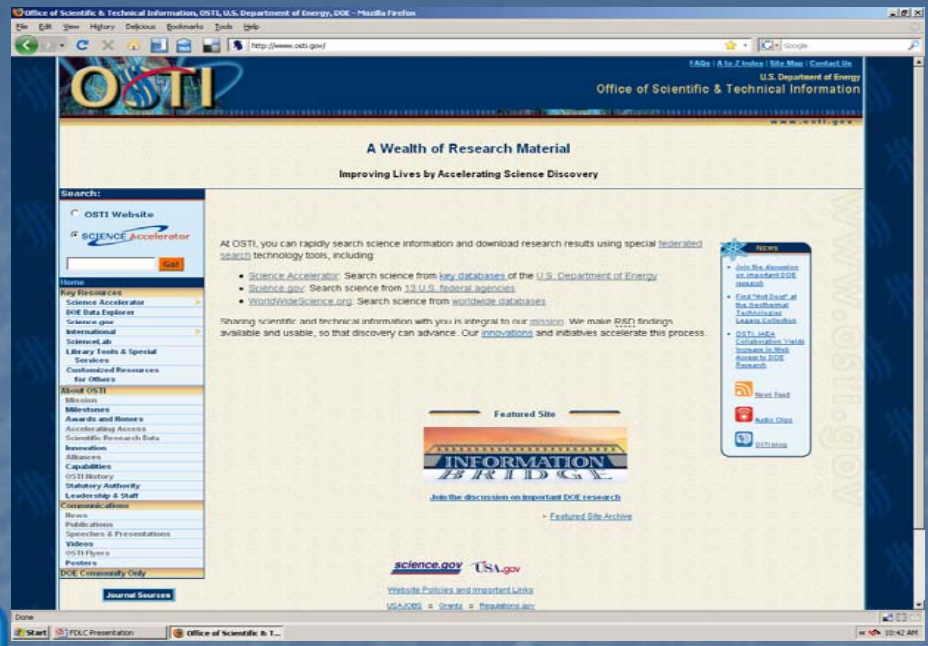
Office of Science

osti.gov

OSTI Mission

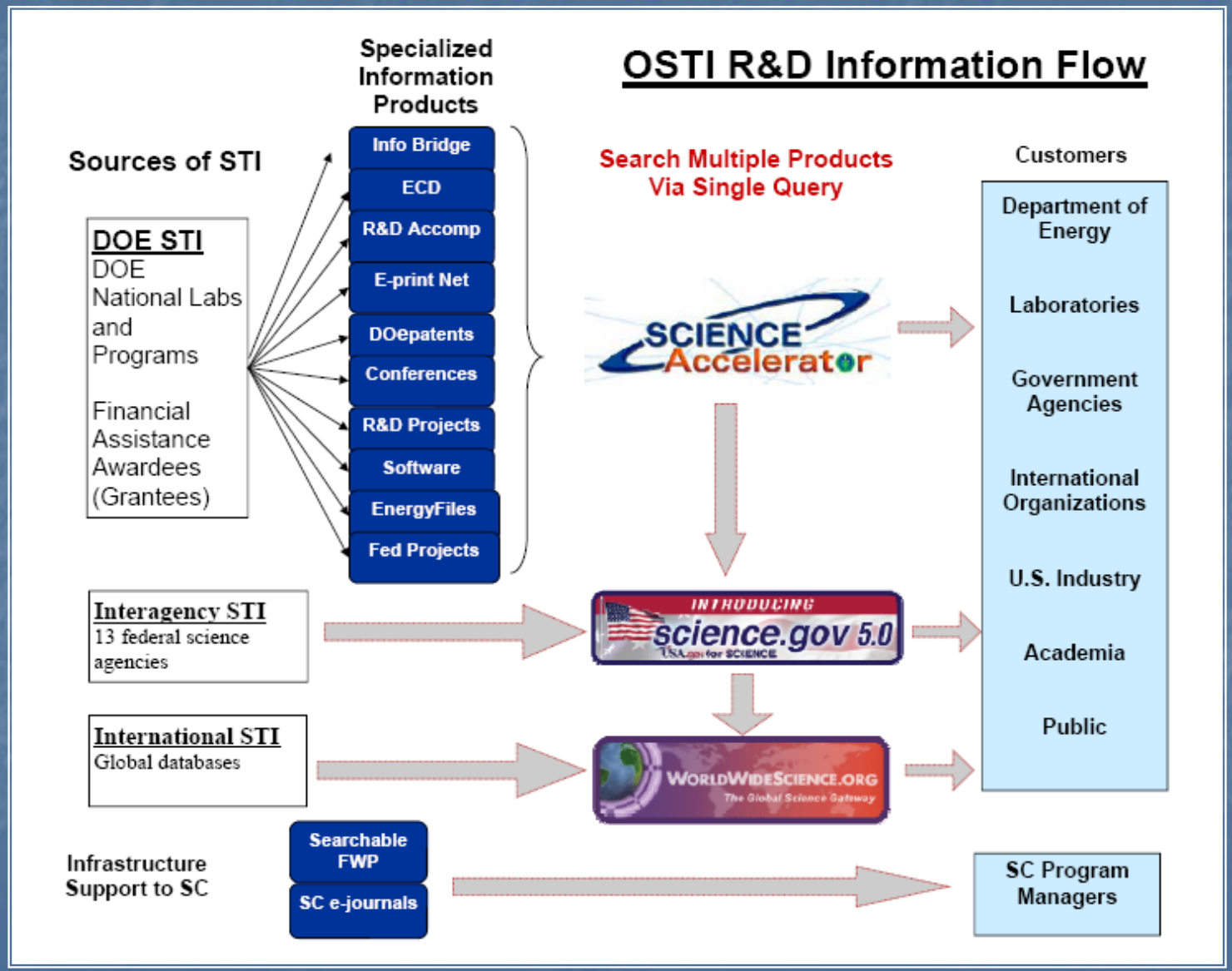
To advance science and sustain technological creativity by making R&D findings available and useful to DOE researchers and the American people





OSTI develops a number of databases and search tools, all accessible through the OSTI Home Page (www.osti.gov).

From STI Sources to Customers ...



OSTI Ensures Access to Non-Googleable Science

Volume of Content Made Searchable by OSTI

WorldwideScience.org:
375,000,000 pages of Global Scientific and Technical Information (STI)

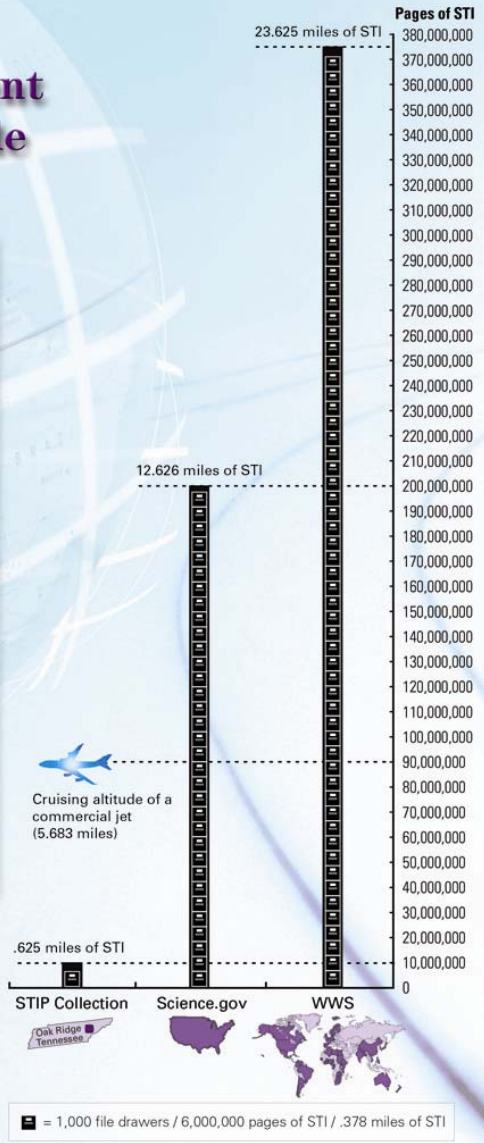
These web-available pages would fill 62,500 traditional 2-feet deep file drawers.

Science.gov:
200,000,000 pages of U.S. Government STI

These web-available pages would fill 33,333 traditional 2-feet deep file drawers.

STIP Collection:
9,900,000 pages of U.S. Department of Energy STI

These web-available pages would fill 1,650 traditional 2-feet deep file drawers.



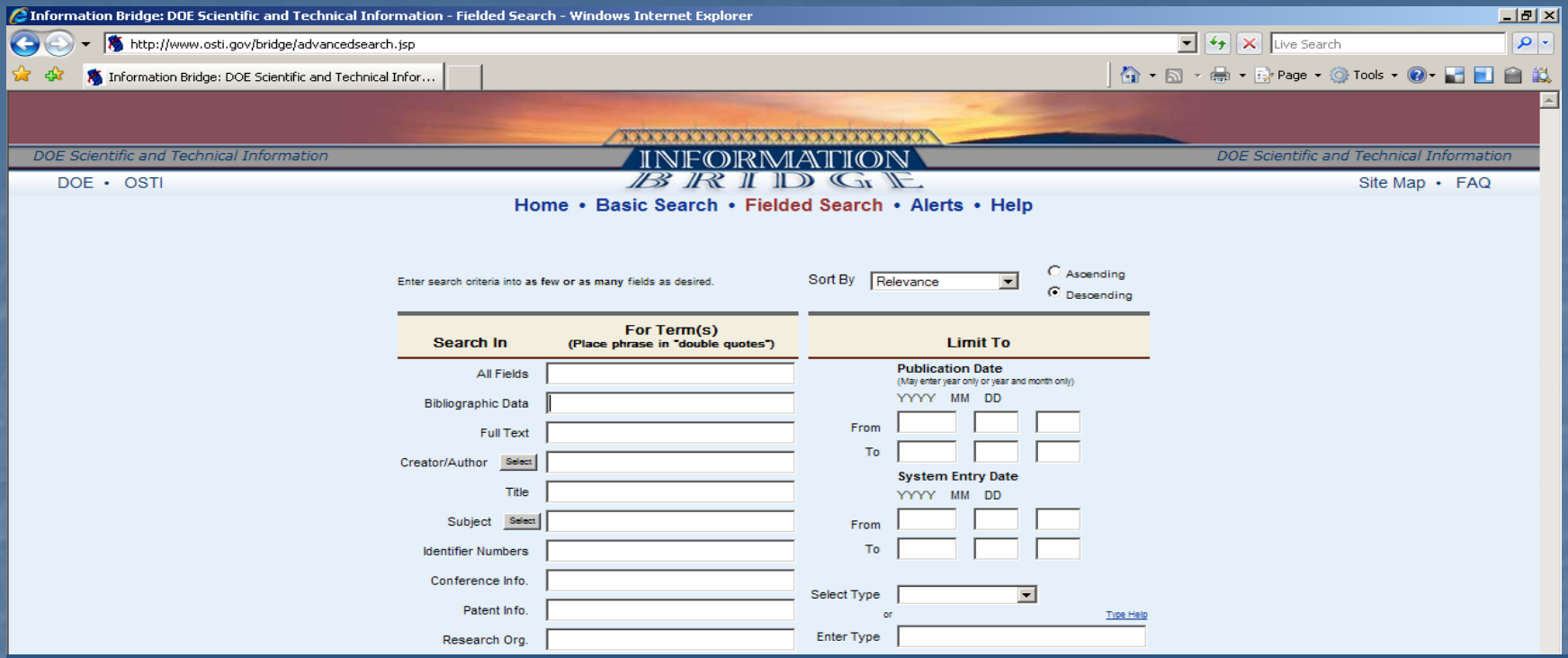
Science progresses as knowledge is shared

OSTI Corollary:
Accelerating the sharing of knowledge accelerates the advancement of science

Through OSTI products, researchers and the public can access a science page count comparable to, but not duplicative of, Google's entire science content.

The OSTI resource that is probably the best known to depository librarians is the **Information Bridge**.

- **Initially developed as a joint product of OSTI and GPO to provide depository libraries access to full text DOE scientific and technical reports.**
- **Especially popular with depository librarians as it replaced the microfiche reports that had been distributed for many years.**



- **Fielded Search provides a very sophisticated search experience.**
- **Reports fall into the disciplines of physics, chemistry, materials, biology, environmental sciences, energy technologies, engineering, computer and information science, renewable energy, and other topics of interest related to the DOE mission.**

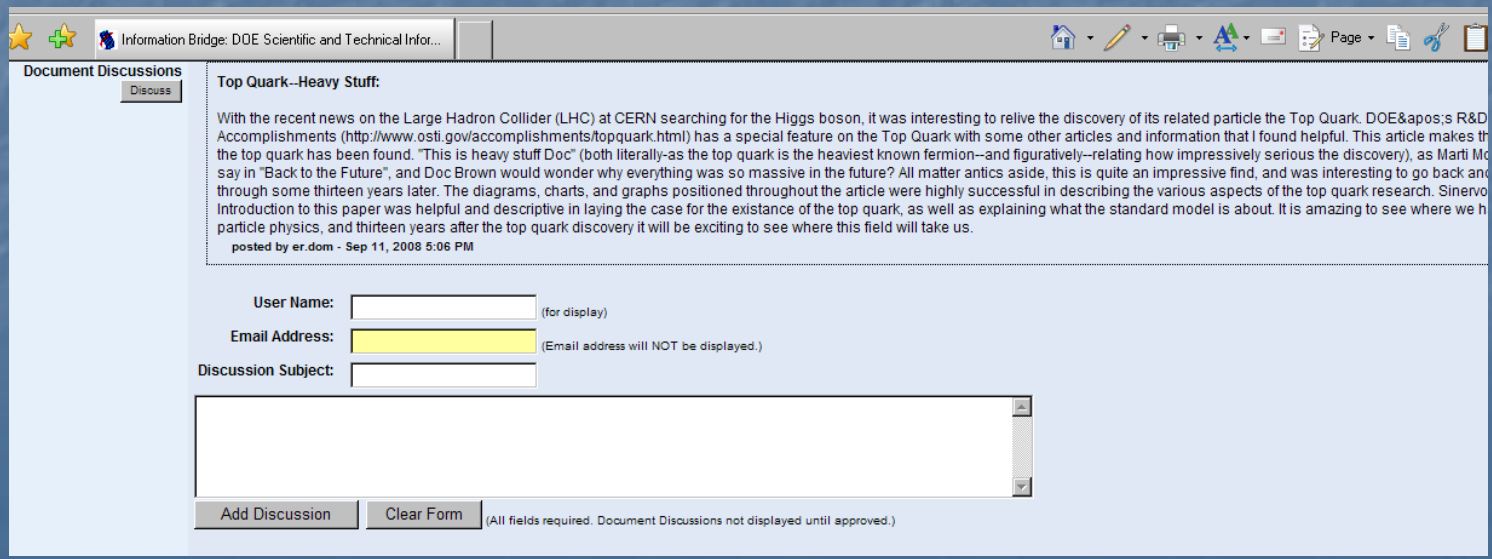
Results return links to full text

Content: DOE STI from 1991 forward

Older reports are being digitized and added as funds permit

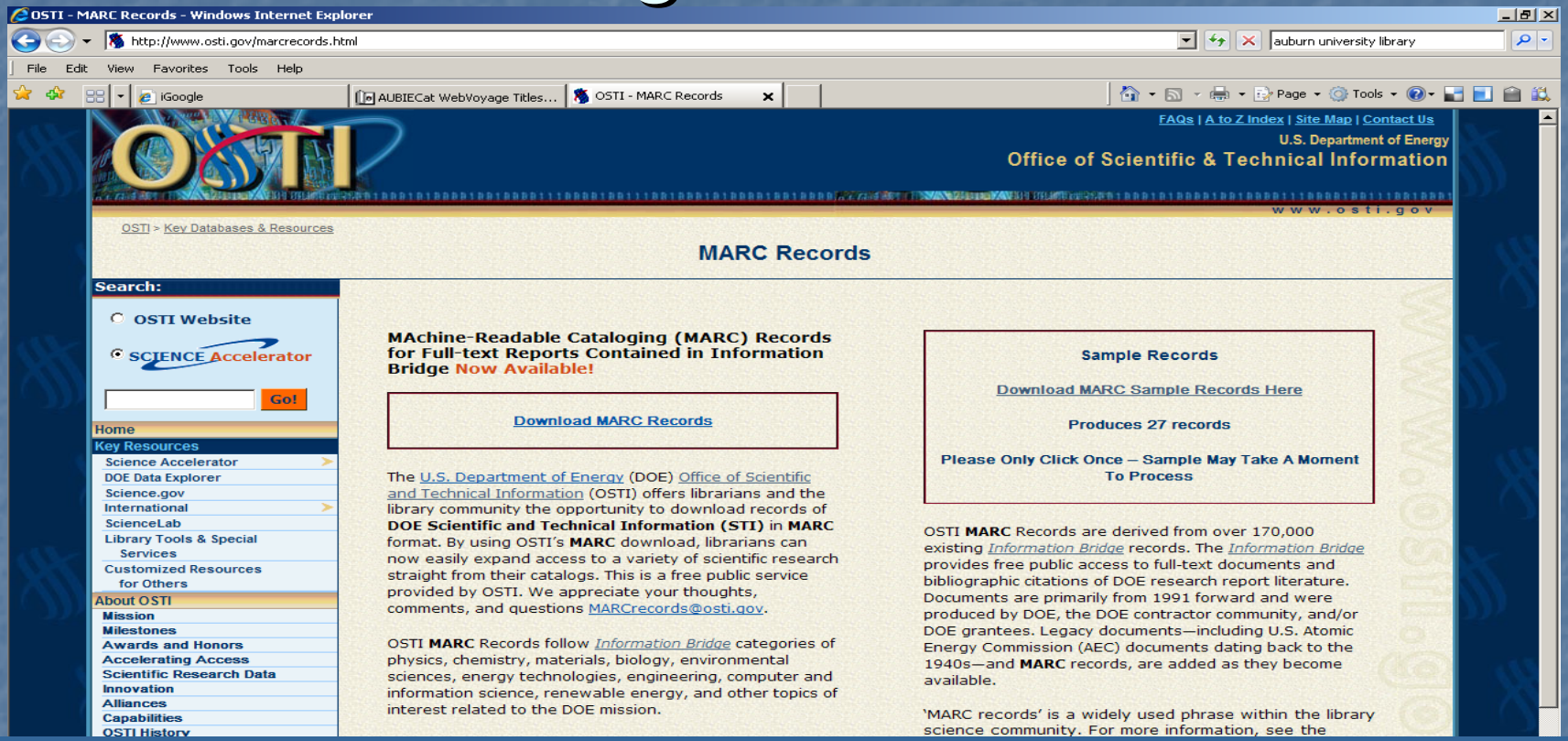
New feature: Document Discussion

- Users now may comment on or engage in discussions on reports.
- The user name will display, but not the email address.
- Comments or discussion will display along with the bibliographic citation.



You requested it! MARC Records from Information Bridge

Launched June 08



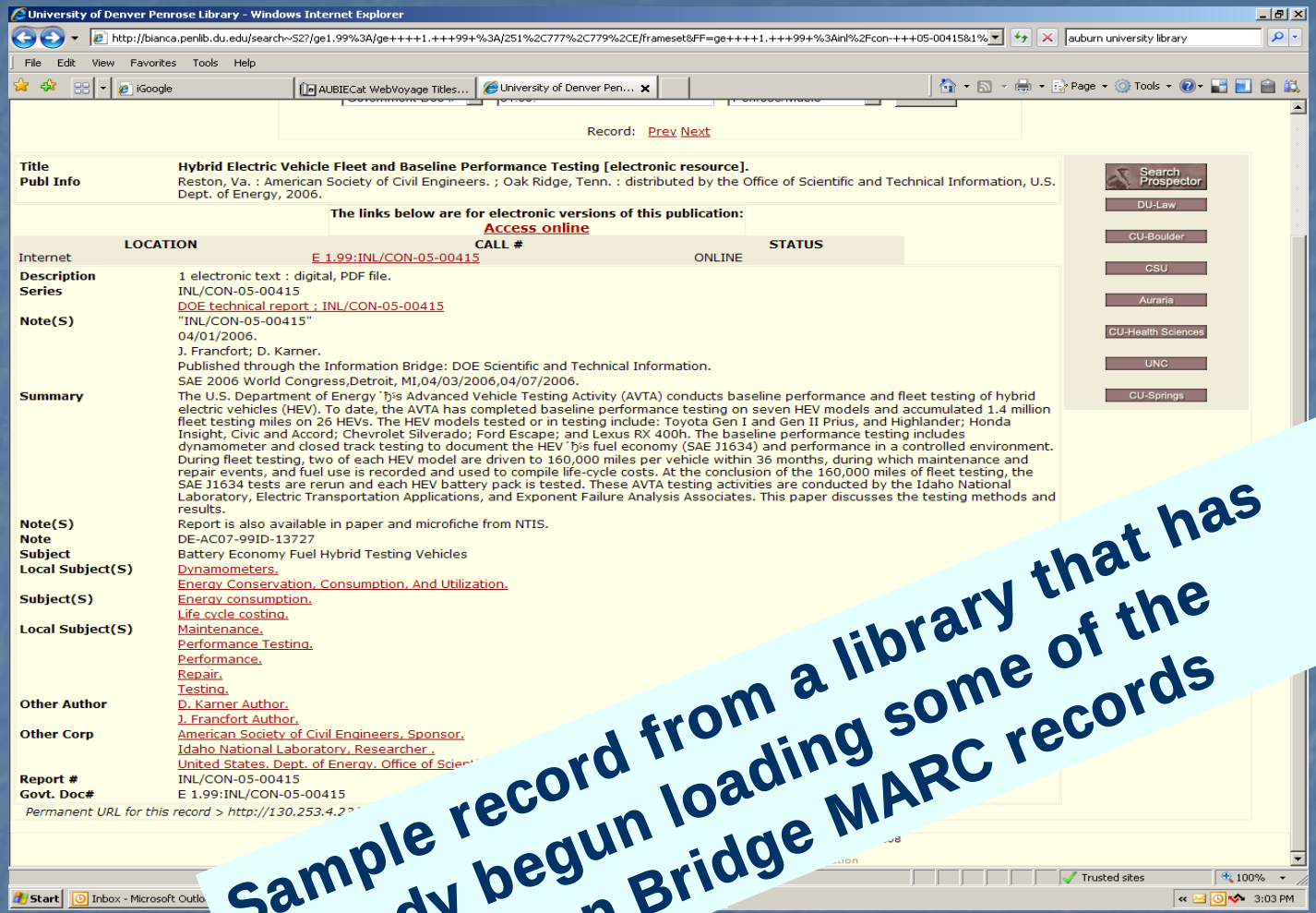
OSTI now provides free MARC records for the reports in Information Bridge. These can be loaded into library catalogs.

This means your patrons will not be required to search a separate database to find energy-related STI

You requested it! MARC Records

- **Libraries have the option of loading over 180,000 records.**
- **Each record has an 856 field with a URL for the full text.**
- **Libraries can select specific subject categories for which to download records and also choose the years desired.**
- **The MARC records are derived from the existing OSTI records. By that, we mean that OSTI did not have catalogers creating each individual MARC record. We created a program to take the information from the existing records used by the Information Bridge and place it in the appropriate MARC field.**

You requested it! MARC Records

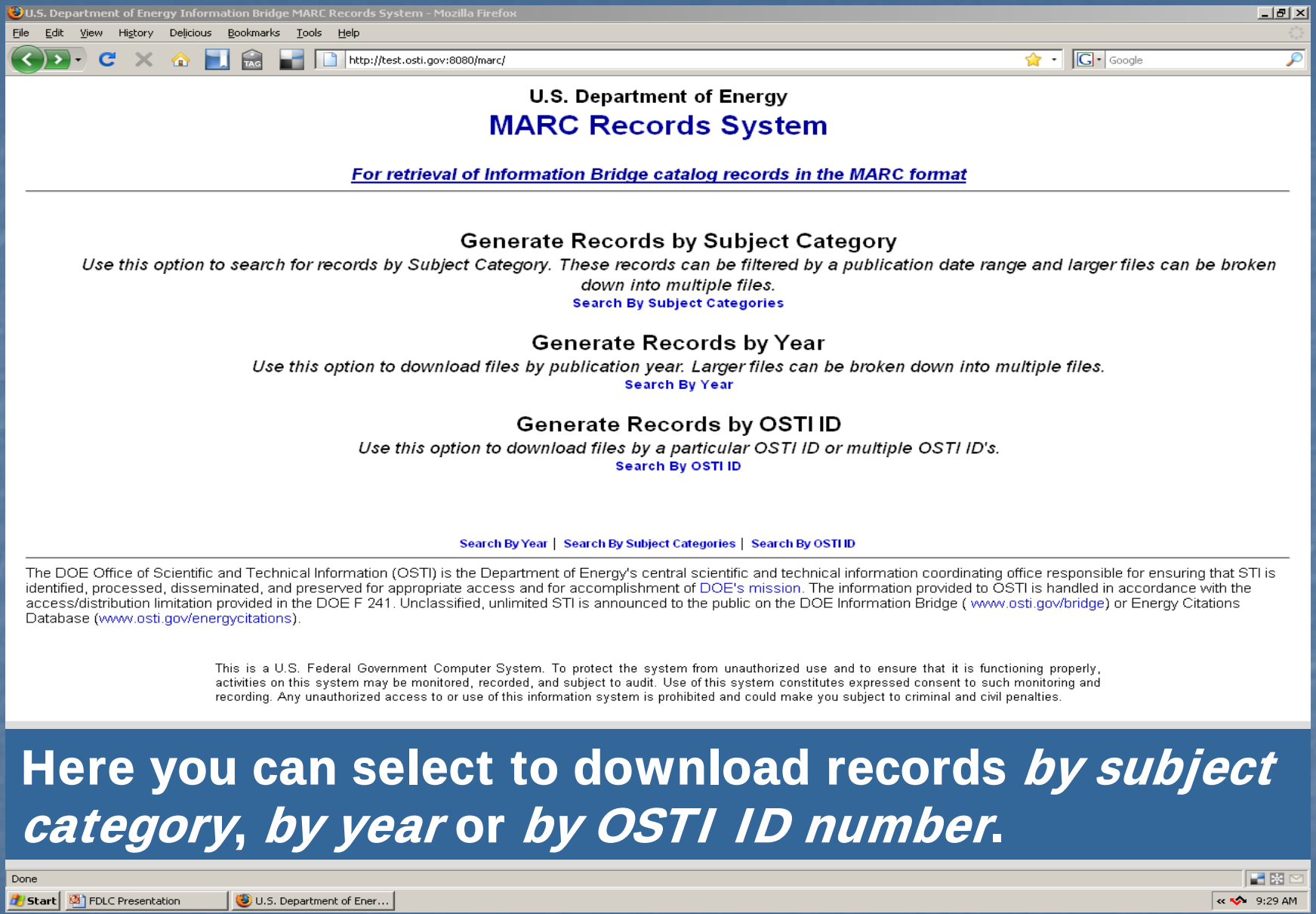


Sample record from a library that has already begun loading some of the Information Bridge MARC records

Get to MARC records from our “Library Tools and Special Services” page

- MARC records and OAI links
- Alert Services
- News
- Flyers
- Widgets

Click on "Download MARC Records" to go to a page with the various download options.



Here you can select to download records *by subject category*, *by year* or *by OSTI ID number*.

Questions or comments on MARC Records?

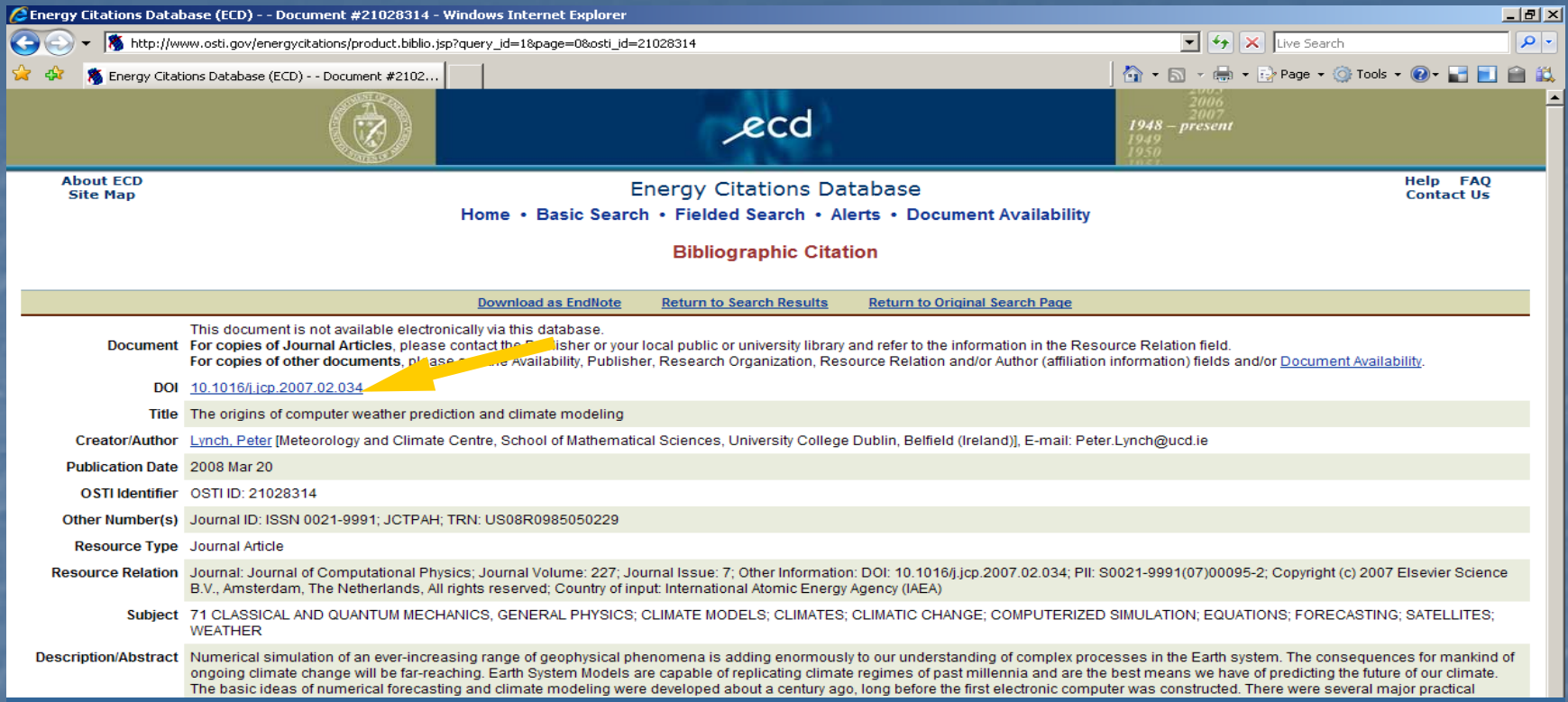
- MARCrecords@osti.gov
- osti.gov/tools
- **Demos of MARC records and more info available at the OSTI booth.**

Retrospective database of energy related STI, including depository microfiche in many libraries.

Energy Citations Database

Contains over 2.3 million citations

- Nuclear Science Abstracts, 1948-1976
- Energy Research Abstracts, 1976-1995
- Entire Information Bridge



Notice above the title there is a DOI

The Digital Object Identifier (DOI®) System is for identifying content objects in the digital environment.

Many library databases provide access to the full-text of journal articles using DOIs.

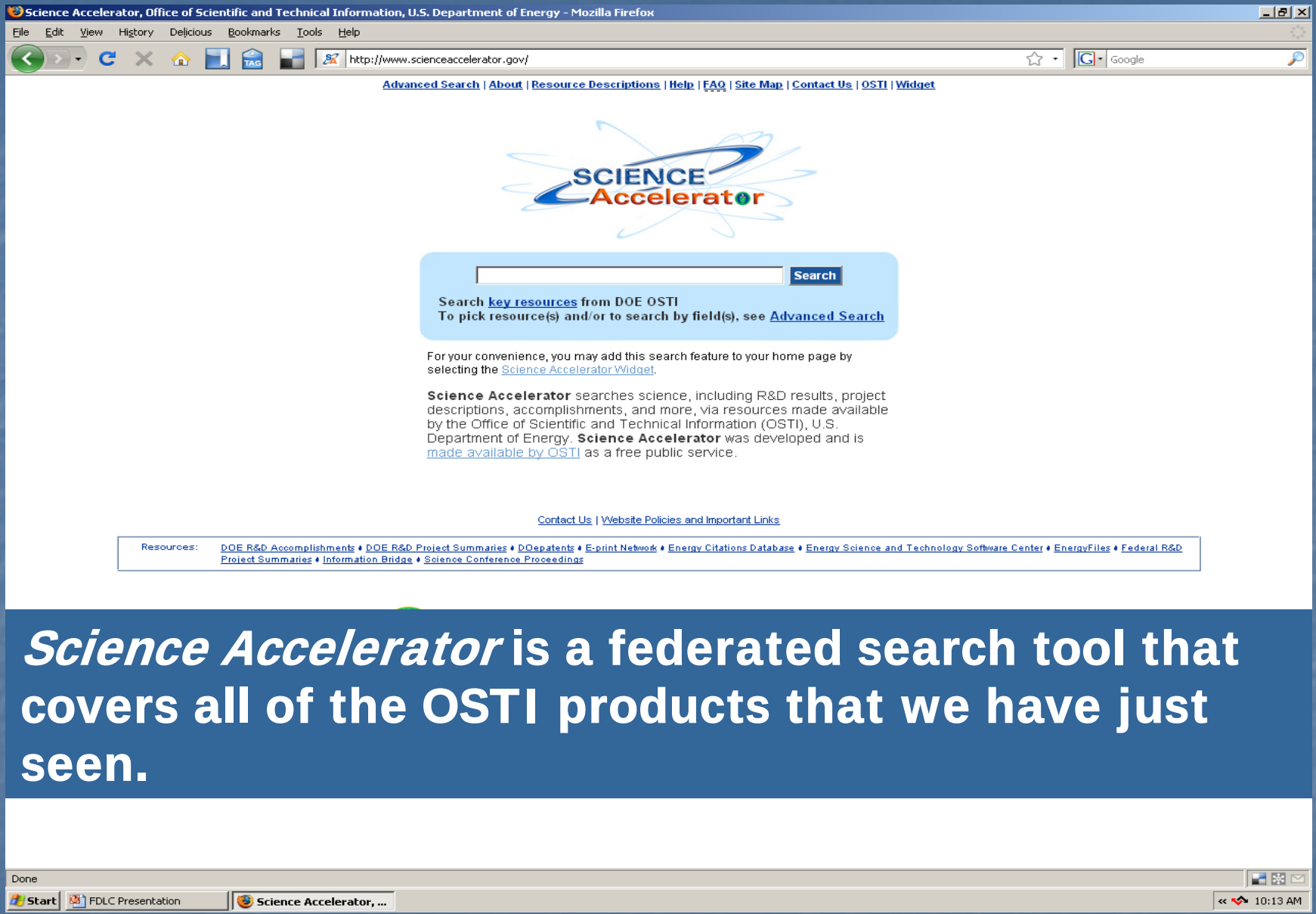
Other OSTI Collections

OSTI Federated Search Products

Wow!

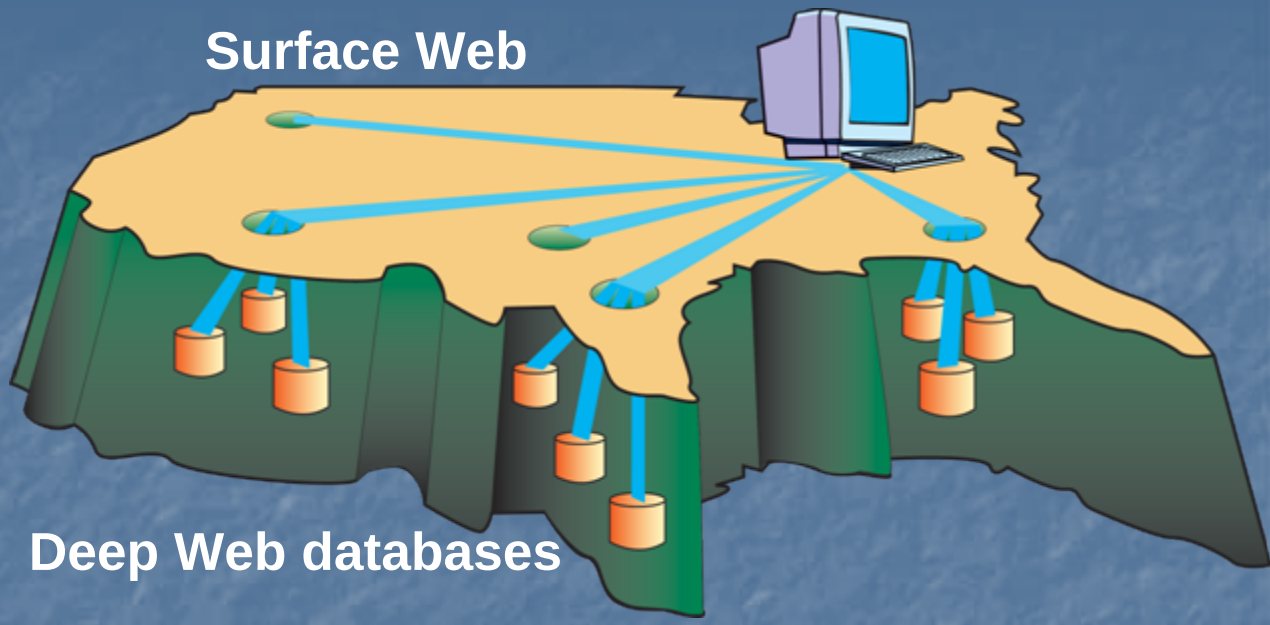
OSTI has a lot of databases and search tools!

How will I ever remember all of them or know which ones to search?

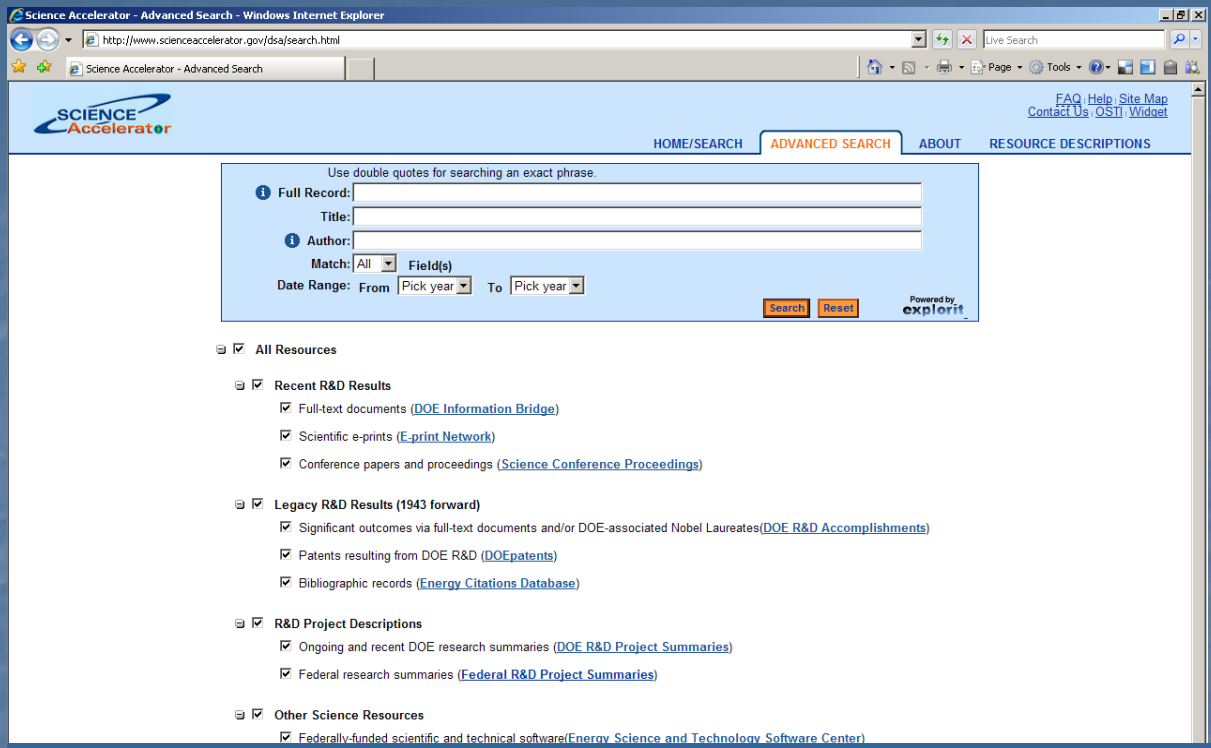


Science Accelerator **is a federated search tool that covers all of the OSTI products that we have just seen.**

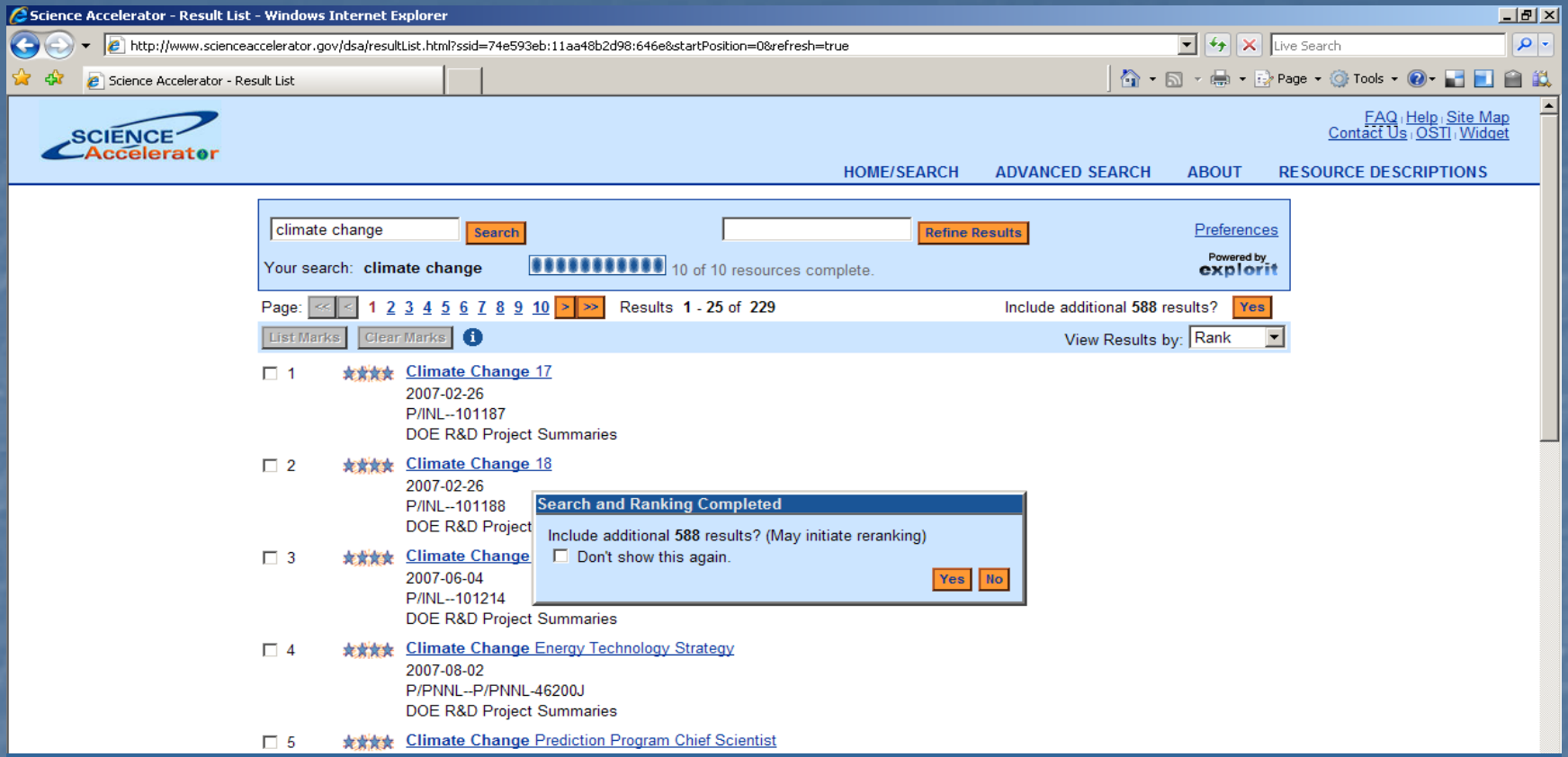
Federated search drills down to the deep Web where scientific databases reside



Federated search systems probe the deep web



- **Search all of the databases or select individual databases.**
- **Search recent R&D results or search legacy R&D dating back to the 1940s.**
- **Search R&D product descriptions or other science resources.**



- Get results ranked by relevance
- Get immediate results, and an option to view more results as databases complete searching
- View results or opt to go directly to most relevant databases for further exploration

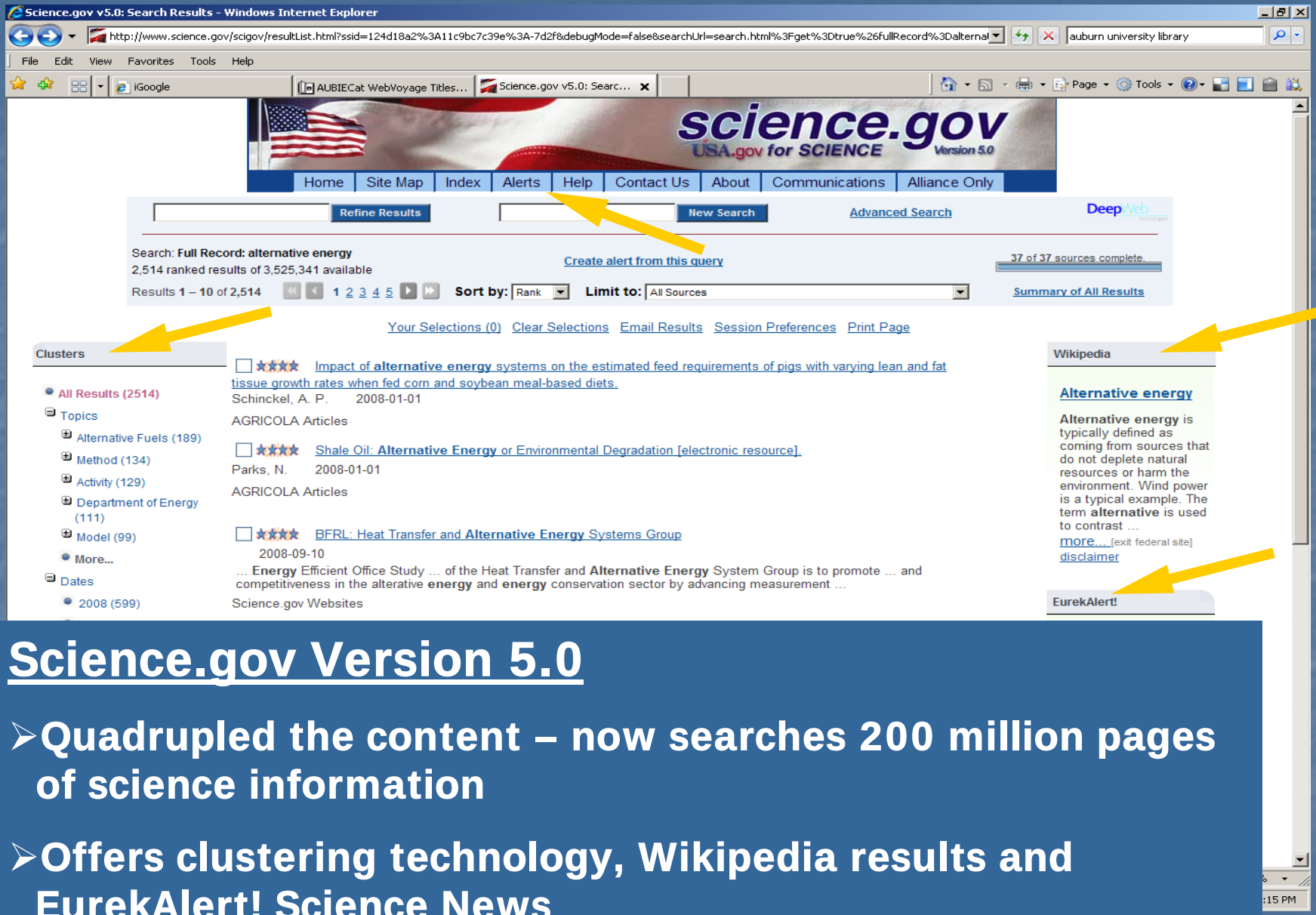
Interface similar to Google

Under the hood, NOT like Google

- USA.gov's portal for science
- Resources represent 97 percent of the federal R&D budget!

Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services, the Interior, Environmental Protection Agency, Library of Congress, National Aeronautics and Space Administration, National Science Foundation, United States Government Printing Office, and the National Archives and Records Administration

14



Science.gov Version 5.0

- Quadrupled the content – now searches 200 million pages of science information
- Offers clustering technology, Wikipedia results and EurekAlert! Science News
- Updated Alerts feature

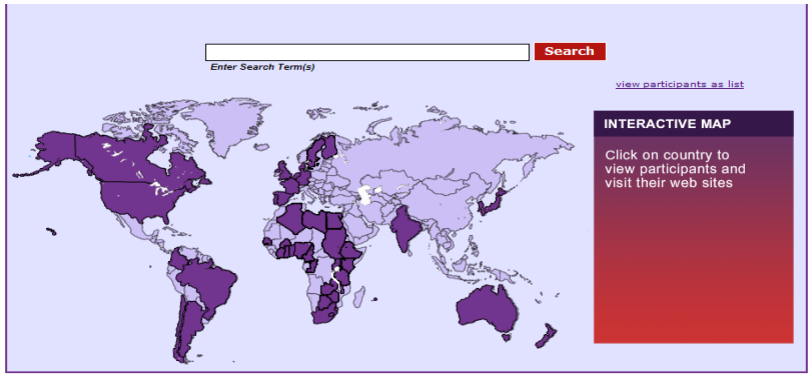
Science Accelerator covers
DOE science.

Science.gov covers
U.S. government science

the next logical step ... the world!

WorldWideScience.org

The Global Science Gateway

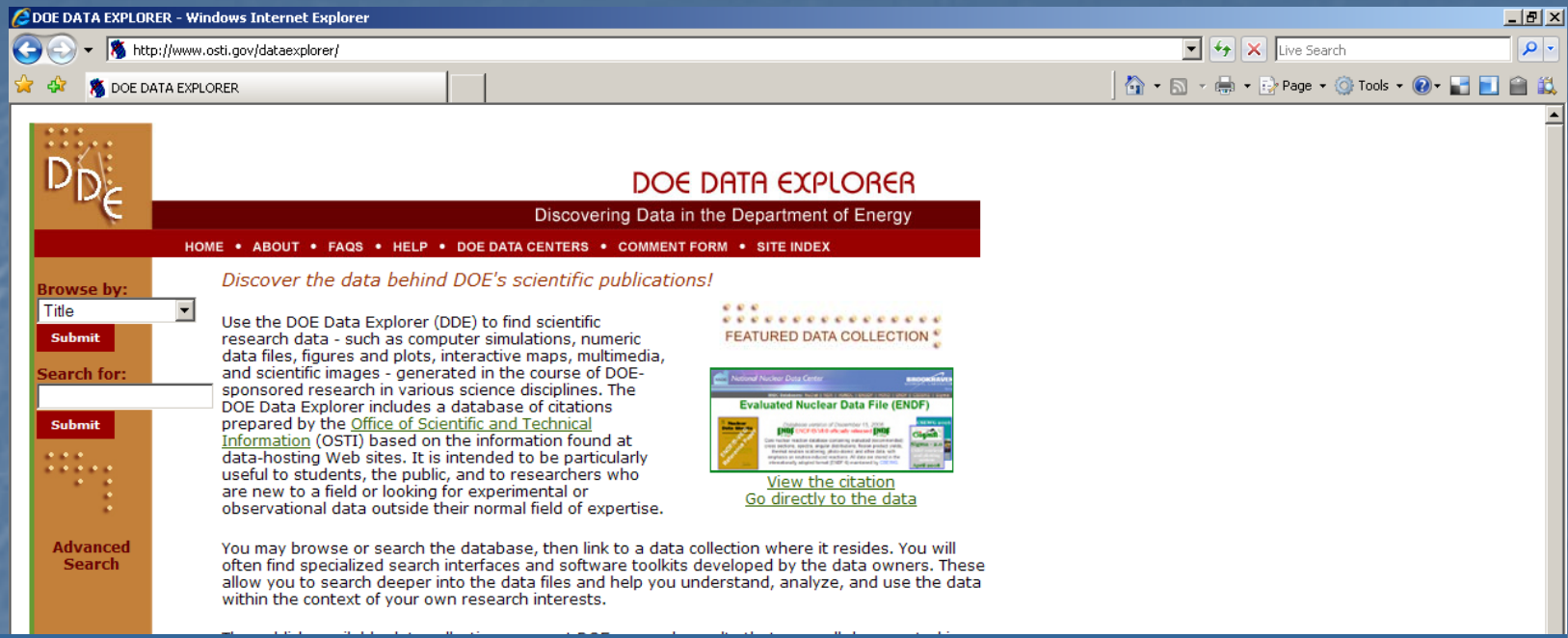


- A federation of the leading science portals sponsored by the governments and national institutions of over 50 countries
- A quantity of science (more than 375 million pages from every inhabited continent) comparable to, but not duplicative of, Google's entire science content.
- A breakthrough in content enabled by breakthrough technology

Officials from organizations representing 38 countries gathered in Seoul, Korea to formalize their commitment to sustain and build upon the online gateway to the world's science information.

The Alliance membership covers six continents and nearly half of the world's population. China just joined!

What's New at OSTI?



Types of content included in the DOE Data Explorer:

- Computer Models/Simulations
- Figures/Plots
- Interactive data maps
- Multimedia
- Numeric Files/Datasets
- Scientific images
- Specialized Mix

Questions?

Don’t forget to visit the OSTI booth!

Dr. Walter L. Warnick
Director
DOE Office of Scientific and Technical Information