OSTI and Science.gov – not your ordinary web site – Part 2

Last week's column introduced the Office of Scientific and Technical Information and the Science.gov web search tool. This week will present yet more details about OSTI and introduce even more innovative computer-based research tools.

Science Accelerator is another recent innovation from OSTI. Using this web search tool, the researcher can search vast collections of DOE research results, project descriptions, and past accomplishments. Searching these eight key OSTI database collections the Science Accelerator reveals information on ongoing research projects, significant DOE discoveries, science conferences and other related research knowledge.

Additionally, OSTI is currently researching the possibility of collecting DOE laboratory educational materials into a database for online access. Can you imagine the value such a database would hold for school teachers? It would open up an enormous resource of well prepared and time tested educational materials for free access to all schools.

Insights into the innovations and creativity inherent in OSTI's continuing pursuit of increasing the pace of knowledge diffusion can be seen through an examination of some of the major milestones of the OSTI–created Science.gov since its inception nearly five years ago. Science.gov, the premiere web search tool for national scientific and technical knowledge, has grown rapidly.

In December 2002, Science.gov was born! For the first time wide public access and a unified search was provided to the government's vast stores of scientific and technical information. Science.gov is an interagency initiative of 17 U.S. government science organizations within 13 Federal agencies.

The agencies consist of the US Departments of Agriculture, Commerce, Defense, Education, Energy, Health and Human Services and Interior, as well as the Environmental Protection Agency, the Library of Congress, NASA, the National Science Foundation, the US Government Printing Office and the National Archives and Records Administration. These agencies form the voluntary Science.gov Alliance.

In May 2004 citizens were first able to sort through the government's reservoirs of research and return results most likely to meet individual needs. An advanced search capability and other enhancements were added. Science.gov 2.0 introduced relevancy-ranking technology among distributed databases presenting government science search results.

February 2005 saw a free and convenient "Alert" service added to Science.gov, allowing citizens to receive e-mail alerts about the most current science developments in their areas of interest. In the Archive, past activity can be reviewed and Alert profiles edited.

In November 2005, even more refined search queries of federal science databases were added. Science.gov improvements are coming more rapidly and the use of the web search tool continues to increase.

In February 2007, for the first time, patrons could search within their original results. Date of the document was priority-weighted for ranking purposes. A new feature allows patrons to share search results via e-mail with colleagues and friends. Science.gov 4.0 is here now and research is getting to be more flexible and even fun to do!

There is broad-based support for Science.gov. A number of the participating agencies are members of CENDI (Commerce, Energy, NASA, National Defense Information Managers' Group), which provides administrative support and coordination for Science.gov.

The mission of CENDI is, "to help improve the productivity of federal science and technology based programs through effective scientific, technical and related information support systems." Its vision is for, "Federal scientific and technical information agencies to have a cooperative enterprise where capabilities are shared and challenges faced together and the sum of the accomplishments is greater than any agency could achieve on its own." See how this fits right in with OSTI's goals for sharing information and accelerating the diffusion of knowledge.

Guess who is the Executive Director of the CENDI Secretariat? She is none other than Oak Ridge's own Bonnie C. Carroll of Information International Associates, Inc.

CENDI held its 2007 Annual Planning Meeting in Oak Ridge this year. Two representatives from each of the 13 agencies were present and participated in a meeting at OSTI after which they were treated to a tour of the Oak Ridge National Laboratory's high performance computer, the Jaguar, which is the world's second fastest computer and the world's fastest open system computer.

This was done without fanfare and was just a matter of fact event associated with the annual meeting. Yet another example of Oak Ridge's world-impacting science that is all too often just another tour to us, but in its proper perspective is actually the nation's major Federal agencies benefiting from Oak Ridge technology.

These Federal agencies forming the membership of CENDI are committed to serving the information needs of the science-attentive citizen, including science professionals, students and teachers, and the business community. The Alliance and Science.gov web search tool were formed in response to the April 2001 workshop, "Strengthening the Public Information Infrastructure for Science."

Science.gov is hosted by OSTI. The deep web search capability is also supplied by OSTI. This web search tool provides access to databases that are not accessible by Yahoo! and Google but contain the majority of scientific and technical information researcher need.

When asked to describe the future innovations planned at OSTI, the simple yet profound response from Sharon Jordan, Assistant Director, Office of Program Integration for OSTI, was, "We are in the business of accelerating discovery." She continued by explaining, "We are thinking, how do we help people find what they need when they don't know they need it?"

See the innovation and creativity inherent in thinking of new ways to provide useful information? Jordan's insight into the overall process for accessing information on the internet allows her to realize that the selection methods being used to decide what information to place on the internet are biased toward the interests of the person or organization doing the selection. That just may mean that the most valuable or most insightful information could be overlooked and the researcher might never even see the best knowledge.

It is good that we have an organization such as OSTI thinking about these things. We in Oak Ridge are fortunate to have such a world-renowned operation with such a long history of both national and international service among us.

OSTI is truly one of Oak Ridge's world-impacting organizations. Thanks to Linda Ponce, Cathey Daniels, and Patty Simmons for all their help with these articles.