SDSC to Host Two Workshops Bridging Humanities and High Performance Computing

Two-Day Sessions Fosters Innovative, Interdisciplinary Partnerships

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The San Diego Supercomputer Center (SDSC) at the University of California, San Diego, will host two 2-day workshops designed to promote ongoing collaboration between humanities scholars and high performance computing centers to capitalize on recent, significant advancements in digitally based information technologies.

The mini-residences and workshops, called *Data Challenges in the Humanities,* will be held March 18-20 and May 14-15 at SDSC. Each two-day workshop focuses on a different group of digital humanities scholars. They are being conducted under a collaboration called the Humanities High Performance Computing Collaboratory (HpC), led by the Institute for Computing in Humanities, Arts, and Social Science (I-CHASS) at the University of Illinois at Urbana-Champaign. The partnership includes the National Center for Supercomputing Applications (NCSA) at that university, the Pittsburgh Supercomputer Center (PSC), and the San Diego Supercomputer Center (SDSC). All supercomputer centers are members of the TeraGrid, the nation's largest open scientific discovery infrastructure.

"The focus of this workshop is to engage humanists in sustained collaboration with colleagues in high performance computing," said Diane Baxter, SDSC's director of education. "We have a wealth of tools, methods, and services for working with vast amounts of digital data. These have tremendous potential to enhance and accelerate humanities research and education across all universities and institutions."

The SDSC workshops will in part address the issue of establishing a robust digital portfolio system designed to enhance online learning and house large, media-rich projects. To date, no such system is available other than text-based portfolios, while those who are currently deploying multimedia in their research and teaching are looking for the ability to conduct and house digitally based information without having to become an expert in computer programming.

In addition to exploring a digitally based prototype system, the workshops will feature case studies in humanities that highlight data curation and preservation challenges amenable to technology solutions, as well as community-led technology initiatives that have addressed similar challenges. The SDSC team also will introduce an innovative data grid technology that equips users to handle a full range of distributed data management needs, including extracting descriptive metadata, moving data efficiently and sharing data securely with collaborators, publishing it in digital libraries, and archiving data for long-term preservation.

One featured technology to be demonstrated and taught during the workshops will be the Integrated Rule-Oriented Data System (iRods), an innovative "rule engine" that lets data collection users more easily accomplish complex data management tasks. IRods rules are being developed that will validate the trustworthiness of digital repositories. Users can apply the growing set of existing rules or write new ones. Rules can also be developed as community-wide policies to manage data.

"This initiative contributes to our national research cyberinfrastructure, the globally accessible and digitally based information infrastructure that supports research in diverse fields of human exploration," said Baxter. "Cyberinfrastructure is more than just the internet or a supercomputer. It encompasses computers, networks, sensors, observatories data, and experimental facilities that, along with the human expertise, have tremendous potential to benefit research and education in all areas."

For more information on the SDSC workshops, contact Diane Baxter at (858) 822-5482 or dbaxter@sdsc.edu.

Directions to SDSC can be found at http://www.sdsc.edu/about/Visitorinfo.html.

About SDSC As an organized research unit of UC San Diego, the San Diego Supercomputer Center is a national leader in creating and providing cyberinfrastructure for data-intensive research. Cyberinfrastructure refers to an accessible and integrated network of computer-based resources and expertise, focused on accelerating scientific inquiry and discovery. SDSC is a founding member of TeraGrid, the nation's largest open scientific discovery infrastructure.

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