Social Factors, Humanities, Arts and Social Sciences: Old Challenges and New Disciplines for Grid Computing

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June 10, 2004

Room: South Pacific 1

GGF11, Honolulu Hawai'i

This workshop will examine the social aspects of grid computing as well as the newly emerging grid applications in the area of the arts, humanities and social sciences. The purpose of this workshop is two-fold 1.illustrate the use of grid technology into the arts, social sciences and humanities communities. To accomplish this, we will present exemplars of early adopters of grid computing in the areas humanities, arts and social sciences, as well as other disciplines that can be modeled by the HASS grid community. And 2. address one of the most complex and fundamental issues in the success of grid deployment – social issues. Surveys around the globe seem to indicate there are many social issues that hinder the successful deployment and adoption of grid technology. This workshop will address:

•Success Stories around the globe in arts, humanities and social sciences and how various organizations have managed to deploy grid.
•Examine various organizational issues faced during Grid deployment.
•Address the need and possible solutions for a Grid-Friendly-Software-Licensing-Model (Inter-organization, cross-country issues etc)
•Educate GGF participants about the social dynamics and issues involved in grid computing.
•Demonstrate how HASS researchers' creative processes can be expanded by the use of grid technologies.
•Educate current and new GGF technologists about these newly emerging/nontraditional areas in grid computing.
•Cost savings (time and resources) benchmarks due to Grid deployment.

Speakers:
8.30am - Introduction & Background
8.45am - David De Roure
9.15am - Ashley Lloyd
9.45am - Reagan Moore
10.15am - Break
10.45am - Rajesh Chhabra
11.15am - James Boyle
11.45am - Stephen David Beck
12.15pm - Peter Wittenburg
12.45pm –Final Comments/Lunch

Why the Semantic Grid is Important to the Arts and Humanities Communities

David C De Roure, Ph.D.
Head, Grid and Pervasive Computing Group
School of Electronics and Computer Science
University of Southampton, UK

Informing Business & Regional Policy: Grid-enabled Fusion of Global Data and "Local" Knowledge

Ashley D. Lloyd, Ph.D. MBA CPhys
Optus Chair of Electronic Business
University of Edinburgh Management School
University of Edinburgh, UK

(Adam Carter, Ally Hume, Ashley Lloyd, Terry Sloan, Thomas Seed)

The Grid promises much to organizations that seek growth through expansion as 'virtual' organizations. Secure communications will underpin this growth, but it is the concurrent delivery of computing power 'on-demand' that is the Grid's distinctive competence. This paper reports a UK Economic and Social Research Council funded project that explores the use of the Grid between the UK and Australia as a means of combining the data, expertise and computing power required to analyze commercial operational data about market behavior. The participants include three universities, two commercial organizations operating within global markets, and two agencies holding government data. The required grid infrastructure between the UK and Australia was commissioned in December 2003 and has been developed around a wide range of core grid technologies. The performance of current 'open source' Grid technologies in supporting this, relatively simple, form of 'virtual' organization should contribute to the debate about whether and how Grid technologies can be adapted for use by social scientists across a much wider range of interaction types.

Data Collections and Data Storage

Reagan W. Moore, Ph.D.
Distinguished Scientist
Program Co-Director
Data and Knowledge Systems
San Diego Supercomputer Center, USA

The management of data becomes easier when digital entities are assembled into collections. The collection supports a context for each digital entity, consisting of descriptive and administrative metadata. Descriptive metadata is used to record provenance information about the creation process, as well as attributes that describe the meaning and relevance of each item. Administrative metadata describes the location and access controls for each digital entity. Data grids are used to manage the storage of digital entities across multiple storage repositories. Data grids make certain the administrative metadata is consistently updated whenever the digital entities are moved.

Examples of data collection creation, management, and access will be demonstrated for projects including the NSF National Science Digital Library, the NSF National Partnership for Advanced Computational Infrastructure, and the NSF National Virtual Observatory.

Social Issues and the Grid
Rajesh Chhabra
Grid Manager
Queensland University of Technology, Australia

This presentation will address some of the social problems in adopting Grid Computing. It will cover two major aspects that impede the adaptation of Grid technology.

People Issues

- Internal Issues (How to get internal staff to participate)
- External Issues (What are the social issues in external participation)
- Users Issues (What's stopping users to get on and start using the Grid Technologies)

Grid Friendly Software Licensing Model (GFSLM)

- SUN's CAUDIT Licensing model.

Learning from Creative Commons: Legal Status, Metadata and the Semantic Web
James Boyle
William Neal Reynolds Professor of Law Duke University
Co-Director of the Center for the Study of the Public Domain at Duke Law School
Duke University, Durham, NC, USA
http://james-boyle.com

Creative Commons (www.creativecommons.org) is a non-profit corporation designed to ensure greater access to cultural materials and educational resources through the use of innovative licenses that can be read by humans and machines as well as merely by lawyers. CC was formed to deal with a problem of access to materials caused by the conjunction of technological developments – computers' increasing capability to store and process data vastly enhanced in effect by interconnection via the World Wide Web — and a set of legal changes. To help solve this problem, CC has developed a Web application that helps people dedicate their creative works to the public domain — or retain their copyright while licensing them as free for certain uses, on certain conditions. Our aim is not only to increase the sum of raw source material online, but also to make access to that material cheaper and easier. To this end, we have also developed metadata that can be used by creators to describe the legal status and acceptable uses of their creative works in a machine-readable way, whether the work is to be dedicated to the public domain, made available for non commercial use, with attribution, or any of the other possible choices our licenses allow.

Unlike the GNU GPL, CC licenses are not designed for software, but rather for other kinds of creative works: websites, scholarship, music, film, photography, literature,

courseware, etc. Though it was only launched in December 2002, Creative Commons licenses are now used on well over 1 million digital objects. Numerous institutions and organizations have adopted CC licenses to make their content available online to the public.

Because the licenses are machine readable, we hope one day to reach the point where one will be able to make the legal accessibility of a digital object part of one's search terms: one could search for all calculus lessons that could be legally incorporated into a math primer for a developing country, or for all digital movies of the Egyptian Pyramids that are available for excerpting in another work. The semantic web could be extended to *the uses to which work could be put*, rather than merely the identification of the work in the first place. We believe that this would help to foster access to, and creative building on, a wealth of cultural and educational materials – would help, in other words, to make good on the promise of the Net.

Creativity, Technology and Human Expression: HPC and Grid Applications in the Arts

Stephen David Beck, Ph.D.
Interim Director
CCT Laboratory for Creative Arts & Technologies
Center for Computation and Technology
Louisiana State University

The Laboratory for Creative Arts & Technologies (LCAT), a research group at the LSU Center for Computation & Technology, is dedicated to exploring the convergence of creativity, technology and human expression. This presentation will discuss efforts by LCAT to leverage new and existing HPC and Grid technologies available at LSU for use in arts disciplines, including animation, design, creative writing, video and music.

Grid Applications for Linguistics and Language Technologies

Peter Wittenburg, Ph.D.
Technical Director
Max Planck Institute for Psycholinguistics
The Netherlands

This talk will focus on our research group's efforts to create an interoperable metadata domain for language resources as well as integrating these archives at the European level by the establishment of a Data grid.