

Workshops

Plug-and-Play Macroscopes

Date:

November 3-4, 2014

Meeting Place:

Social Science Research Commons (SSRC), Indiana University
Woodburn Hall, Room 200
1100 East Seventh Street
Bloomington, IN 47405

[Indiana University Campus Map »](#)

Photos:





Organizers:



Katy Börner

Victor H. Yngve Professor of Information Science, Department of Information and Library Science, School of Informatics and Computing, Indiana University, Bloomington; Director, Cyberinfrastructure for Network Science Center & Curator of Mapping Science exhibit, Bloomington, IN
katy@indiana.edu

[PR^A2](#) | [Slides](#)



Daniel Halsey

Senior Software Engineer/Research Analyst, Cyberinfrastructure for Network Science Center, Bloomington, IN
dhalsey@indiana.edu

[PR^A2](#)

Workshop Goals & Agenda:

This 1.5 day, invitation-only workshop will bring together programmers and power users of visual analytics desktop tools and online services. Key goals of the workshop are

- improved integration/collaboration between existing tools/developers,
- identification of currently unmet user needs and/or anticipated novel use cases that future tool/service developments should address, and
- discussion of synergies among efforts and possible joint funding applications.

Format is a combination brief presentations, brainstorming sessions, and hands-on sessions--to be finalized when participants are confirmed.

Participants, please fill out this [PR^A2](#) and send to [Samantha Hale](#) by October 18.

Schedule:

Monday, November 3, 2014

12:00pm	Collaboration Lunch Welcome by Organizers (Katy Börner and Daniel Halsey)
12:30pm	General Introduction by Participants (5 min per person/organization)
2:00pm	<i>Social Networking Break</i>
2:30pm	Overview Talks, Woodburn Hall 200 (Open for public) From Table to Graph: Thomson Reuters Visual Analytics – Julia Laurin, Thomson Reuters Thomson Reuters applications offer a variety of visualizations to enhance understanding and analysis and support informed decision-making. For example, visualization of patent, life sciences, and scholarly research data all contribute to comprehensive understanding of research domains. This talk will review lessons learned, recent developments in

Web of Science-based analytics, and current research underway to develop solutions which support graph data and machine learning at big data scales--especially focused on detecting and understanding changes in research output patterns, enabling explorations of relationships and scholarly collaborations, and visualizing temporal analytics.

NETEAV - Dmitry Korobskiy, NETE

NETEAV is an on-line platform for visualization that can portray the current state of research and developmental funding, scientific knowledge, and the evolution, current trends and emerging areas of science and pathways to research success. This talk will cover the business needs, conceptual architecture and context, overall project status, and future directions of the NETEAV system.

CIShell Tools: The Road Ahead - Daniel Halsey, CNS Center

CIShell is CNS's core macroscope creation framework. It is an open-source, OSGI-compliant, Java codebase that provides a plug-and-play architecture for data reading, analysis and aggregation, and visualization. CNS has created a variety of both targeted and general-use tools based on CIShell (NWB, EPIC, Sci2, etc.), and a number of disconnected tools that integrate output from CIShell-based systems. CNS developers will discuss the history of CIShell, its latest and future interface, plugin, and architectural changes, and the tools and infrastructure that will be used to implement those changes.

Scaling Up Learning Communities: ecology of open technologies for analytics and collective intelligence - Tam Kien Duong, CRI

First, how the CRI is an heterogenous learning community with the students, scientists and extended networks of entrepreneurs and local actors. But if we want to scale, we have to find new networked usages of online/open services that will provide collaborative tools and collective feedbacks. We have found existing software that we are braconizing but we also try to produce our own one (second part). This might be interesting as a conversation starter about ecology of analytic tools and how the tools, platforms and dispositifs fit by complying community standards (with a trending focus on open science, etc) but are also the links between communities.

Second our projects related to online services and analytics : redwire (a code learning platform oriented toward scientific games), movuno (an open hardware platform to create movements data -- related to quantified self) and ideas like john maeda's Powershop (<http://smithery.co/art/maedas-leadership-map/>). We have a project similar (rhizi, the project leader was there during our meeting) to the last one but I do not know what its status.

Improving Data Visualization Literacy - Katy Börner, CNS Center

This talk present the results of a recent study that examined the "data visualization literacy" of over 900 youth and adult visitors across six U.S. science museums. Results show that: a very high proportion of the population, both adult and youth, cannot interpret data visualizations beyond very basic reference systems; construction of complex visualizations led to more accurate interpretation than deconstruction; and individuals are willing to spend time attempting to make meaning in representations depending on their personal interest in the topic. I then discuss a theoretically grounded and practically useful visualization framework that was developed to empower the broadest spectrum of users to read and make data visualizations that are useful and meaningful to them. The visualization framework was used to conduct the aforementioned study and is used to develop plug-and-play macroscope tools that improve the data visualization literacy of researchers, practitioners, IVMOOC students, museum visitors, and others.

4:30pm *Social Networking Break*

5:00pm Brainstorm of Opportunities and Challenges

6:00 pm *Adjourn*

6:30pm Joint Dinner Brainstorm

The Uptown Cafe

102 E Kirkwood Ave

Bloomington, IN 47408

Tuesday, November 4, 2014

8:30am *Breakfast*

9:00am Breakout Sessions:
MacroScope Needs and Desires
MacroScope Technologies
MacroScope Futures

10:00am Breakout Session Reports

11:00am Second Best Ideas

12:00pm *Joint Lunch*

1:00pm Breakout Sessions:
MacroScope Desktop Tools
MacroScope Online Services
MacroScope Standards

2:00pm Breakout Session Reports

3:00pm Discussion of Collaboration Opportunities

4:00pm **CNS Annual Open House**

Participants Attending:



Steve Corenflos

Software Developer, CNS Center, IU Bloomington



PR^2



Tam Kien Duong

Research Engineer, CRI
PR^2



Brian Haugen

Health Science Policy Analyst, National Institutes of Health
PR^2



Vivek Karihaloo

Software Engineer, CNS Center, IU Bloomington
PR^2



Dmitriy "DK" Korobskiy

Director, Technology Solutions, NETE
PR^2



Julia Laurin

Director of Product Strategy, Research Management & Analytics, Thomson Reuters
PR^2



Allen Lee

Research Professional, Arizona State University
PR^2 | Slides



Penghui Lyu

School of Information Management, Wuhan University
PR^2 | Slides



Bahador Saket

PhD candidate in Computer Science, University of Arizona
PR^2



Savita Sethi

Director, Technical Solutions, NETE
PR^2



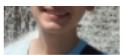
Adam Simpson

Software Developer, CNS Center, IU Bloomington
PR^2



Kate Webbink

Science Media Producer
PR^2 | Slides



• 11 | PRESENTATION

Interested But Cannot Attend:



John Bruer

President, James S. McDonnell Foundation



James Carlson

Executive Director, School Factory, Inc. 501c3; Founder, Bucketworks; Founding Member, Bucket Brigade Inc.



David Chavalarias

CNRS permanent researcher, Centre d'Analyses de de Mathématiques Sociales (CAMS), Ecole des Hautes Etudes en Sciences Sociales (EHESS)



Chaomei Chen

Professor, College of Information Science and Technology, Drexel University



Fernando Galindo-Rueda

Senior Economist, OECD



Marco A. Janssen

Associate Professor, School of Human Evolution and Social Change; Director of the Center for the Study of Institutional Diversity, Arizona State University



Stephen Kobourov

Professor, Department of Computer Science, University of Arizona



Diana Lucio

Observatorio Colombiano de Ciencia y Tecnología



Paul Martin

Senior Vice President, Science Learning, Science Museum of Minnesota



Michael McLennan

Senior Research Scientist, Purdue University

PR^2



Anders Munk

Visiting Research Fellow, médialab; Associate Professor, University of Aalborg



James Onken

Senior Advisor to the Deputy Director for Extramural Research, NIH Director, Office of Data Analysis Tools and Systems



Abel Packer

Director of SciELO / FAPESP Program



Monica Salazar

Observatorio Colombiano de Ciencia y Tecnología



Martin Schaaper

Programme specialist STI statistics and Communication and Information statistics



Sandeep Somaiya

Managing Director, NETE



Mike Thelwall

Professor of Information Science, University of Wolverhampton



Beverley Thomas

Biotechnology and Biological Sciences Research Council (BBSRC)



Jinneth Tique

Information Scientist Specialist, Observatorio Colombiano de Ciencia y Tecnología
PR^A2

Background Information:

This is the fifth workshop of its kind, see:

- [Workshop on Information Visualization Software Infrastructures](#)
- [Towards an All-in-One Tool for Network Scientists Interested in Large Scale Network Analysis, Modeling, and Visualization](#)
- [JSMF Workshop on Plug-and-Play Macrosopes](#)
- [Plug-and-Play Macrosopes](#)

The "Plug-and-Play Macrosopes" paper.

[Information Visualization MOOC](#) that teaches how to use the tools.

Travel/Housing:

Please contact [Francesca Ulloa Gibbons](mailto:Francesca.Ulloa.Gibbons@indiana.edu) for travel arrangements.

PLEASE CONTACT SAMANTHA HALE (sjhale@indiana.edu) FOR TRAVEL ARRANGEMENTS.

Directions:

See the contact page for the Cyberinfrastructure for Network Science Center, <http://cns.iu.edu/contact.html> or contact Samantha Hale (sjhale@indiana.edu).

Acknowledgments:

This effort is supported by the **Cyberinfrastructure for Network Science Center** at Indiana University. A special thanks to the **Social Science Research Commons (SSRC)** for providing a location for the workshop.

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