LAK2012
参加報告

安武公一
広島大学社会科学研究科

2012-10-24
SS研2012年度教育環境分科会@神戸

What's LAK ?

SoLAR

an inter-disciplinary network of leading international ***researchers who are exploring the role and impact of analytics*** on teaching, learning, training and development.

http://www.solaresearch.org/

- SoLAR (Society for Learning Analytics Research)
  - Learning Analytics and Knowledge - annual conference
  - FLARE - a series of regional practitioner-focused to facilitate of information, case studies, ideas, and early stage research.
  - STORM - a distributed research lab

PEOPLE

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John Campbell, Purdue University, USA
Shane Dawson, University of British Columbia, Canada
Erik Duval, Katholieke Universiteit Leuven, Belgium
Dragan Gašević, Athabasca University, Canada
Caroline Haythornthwaite, University of British Columbia, Canada
Ulrich Hoppe, University of Duisburg-Essen, Germany
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Grace Lynch, Open Universities Australia
Xavier Ochoa, Escuela Superior Politécnica del Litoral, Ecuador
Hiroaki Ogata, Tokushima University, Japan
George Siemens, Athabasca University, Canada
Daniel Suthers, University of Hawaii, USA
Stephanie Teasley, University of Michigan, USA
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Leah Macfadyen, University of British Columbia, Canada
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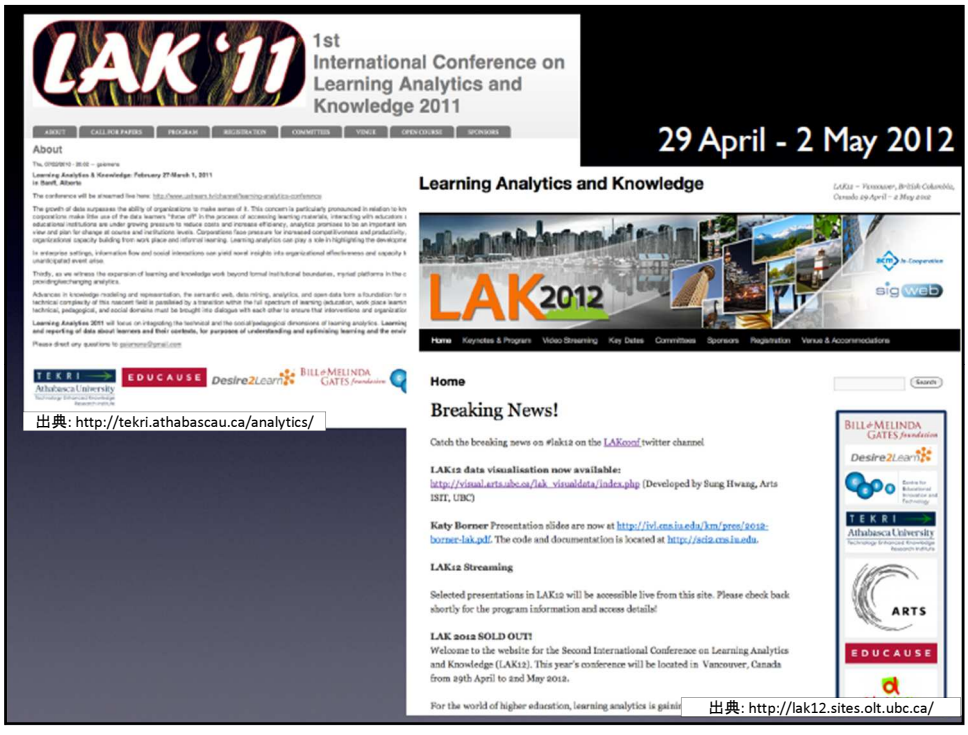
David Wiley, Brigham Young University, USA
Martin Wolpers, Fraunhofer Institute for Applied Information Technology, Germany

出典:http://www.solaresearch.org/people/



出典: http://tekri.athabascau.ca/analytics/

出典: http://lak12.sites.olt.ubc.ca/

SOLAR
SOCIETY for LEARNING ANALYTICS RESEARCH

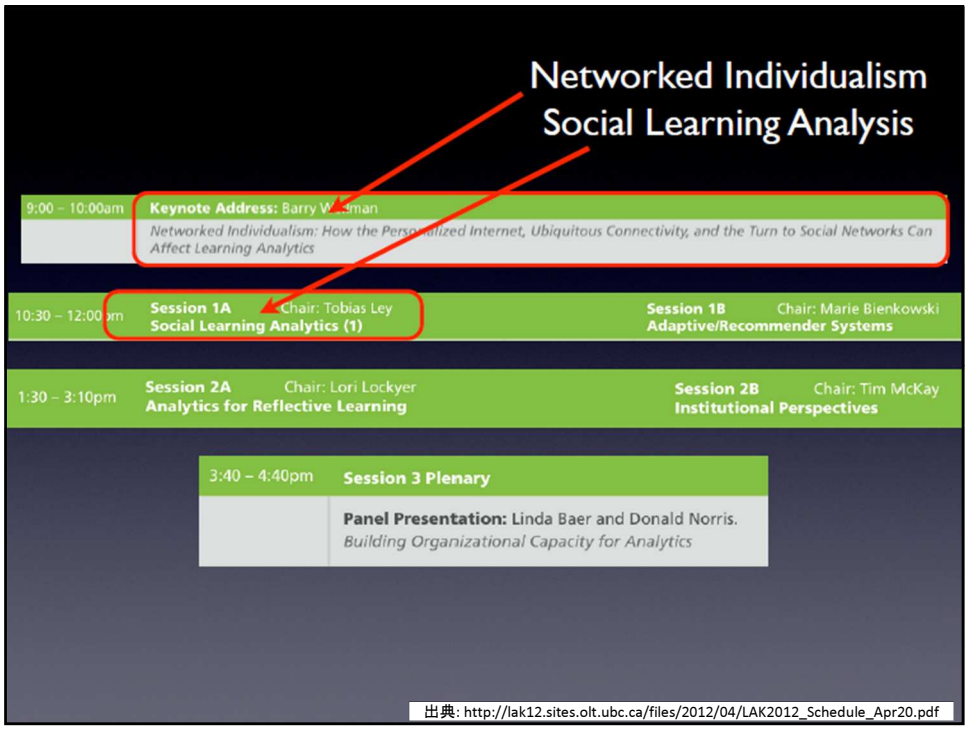
HOME EVENTS FLARE JOURNAL MISSION PEOPLE RESOURCES STORM STAY IN TOUCH

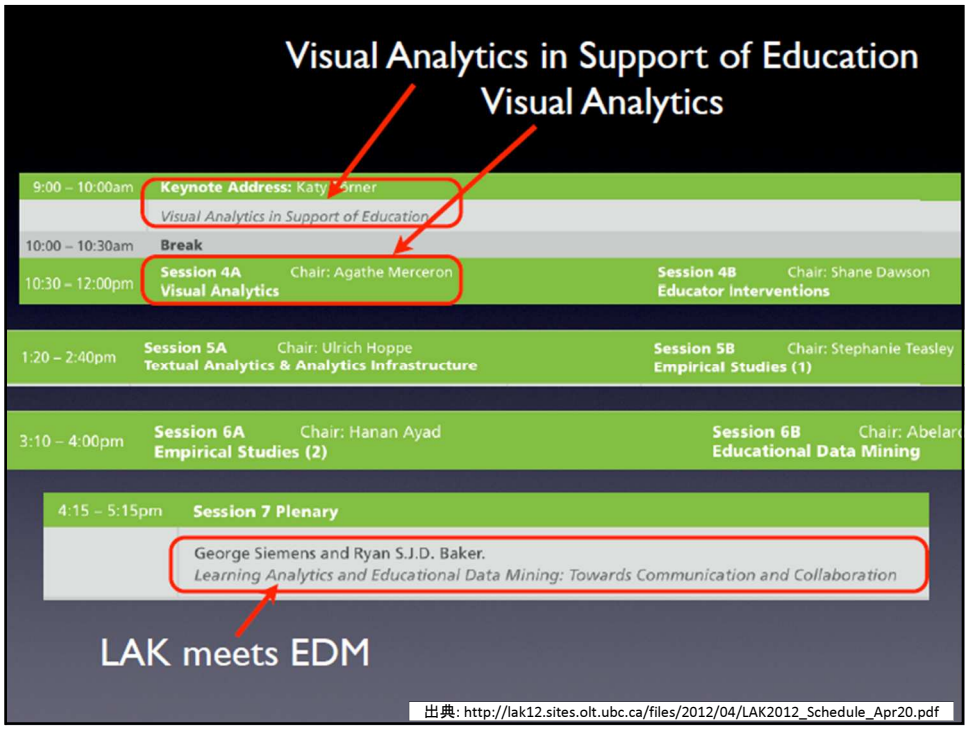
VIDEOS OF PRESENTATIONS

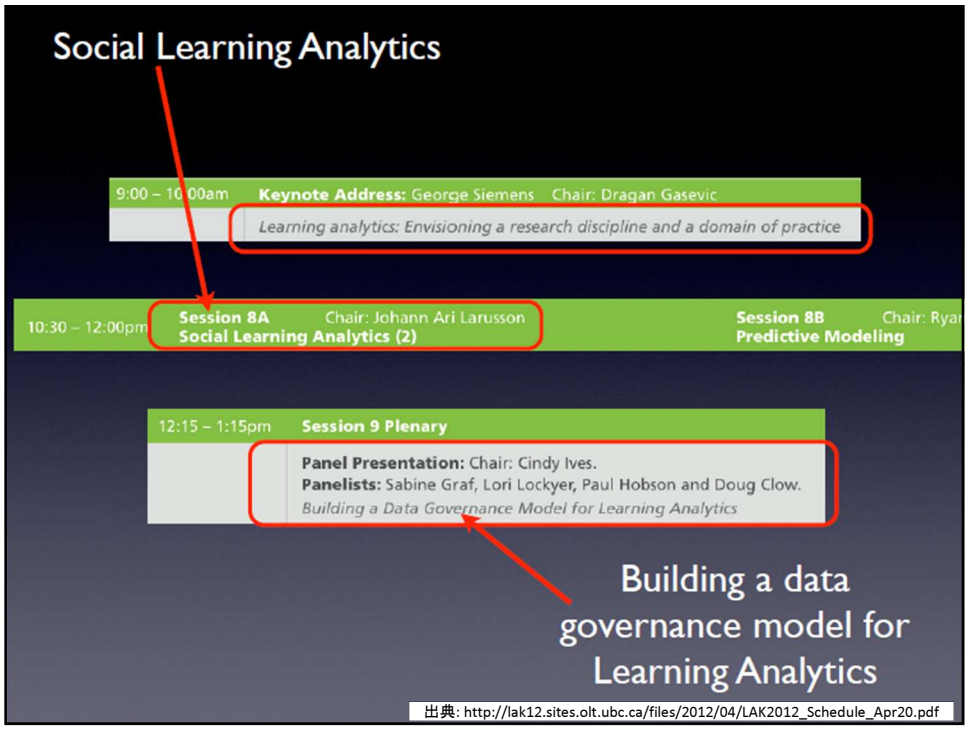
Please click on the presentation titles to view video.

April 30, 2012	
▪ Keynote	*Barry Wellman* Networked Individualism: How the Personalized Internet, Ubiquitous Connectivity, and the Turn to Social Networks
▪ Full ▪ session 1A	*Dan Suthers Kar-Hai Chu* Multi-mediated Community Structure in a Socio-Technical Network
▪ Short ▪ session 1A	*De Laat Maarten Schreurs Bieke* Network Awareness Tool _ Learning Analytics in the workplace: Detecting and Analyzing Informal Workplace Learning
▪ Short ▪ session 1A	*Leyla Zhuhadar Rong Yang* Cyberlearners and Learning Resources

出典: http://www.solaresearch.org/events/lak/2012videos/


Networked Individualism
Social Learning Analysis
9:00 – 10:00am
Keynote Address: Barry W[illegible]man
Networked Individualism: How the Personalized Internet, Ubiquitous Connectivity, and the Turn to Social Networks Can Affect Learning Analytics
10:30 – 12:00pm
Session 1A Chair: Tobias Ley
Social Learning Analytics (1)
Session 1B Chair: Marie Bienkowski
Adaptive/Recommender Systems
1:30 – 3:10pm
Session 2A Chair: Lori Lockyer
Analytics for Reflective Learning
Session 2B Chair: Tim McKay
Institutional Perspectives
3:40 – 4:40pm
Session 3 Plenary
Panel Presentation: Linda Baer and Donald Norris.
Building Organizational Capacity for Analytics
出典: http://lak12.sites.olt.ubc.ca/files/2012/04/LAK2012_Schedule_Apr20.pdf


Visual Analytics in Support of Education
Visual Analytics
9:00 – 10:00am
Keynote Address: Katy [illegible]rner
Visual Analytics in Support of Education
10:00 – 10:30am
Break
10:30 – 12:00pm
Session 4A Chair: Agathe Merceron
Visual Analytics
Session 4B Chair: Shane Dawson
Educator Interventions
1:20 – 2:40pm
Session 5A Chair: Ulrich Hoppe
Textual Analytics & Analytics Infrastructure
Session 5B Chair: Stephanie Teasley
Empirical Studies (1)
3:10 – 4:00pm
Session 6A Chair: Hanan Ayad
Empirical Studies (2)
Session 6B Chair: Abelar[illegible]
Educational Data Mining
4:15 – 5:15pm
Session 7 Plenary
George Siemens and Ryan S.J.D. Baker.
Learning Analytics and Educational Data Mining: Towards Communication and Collaboration
LAK meets EDM
出典: http://lak12.sites.olt.ubc.ca/files/2012/04/LAK2012_Schedule_Apr20.pdf



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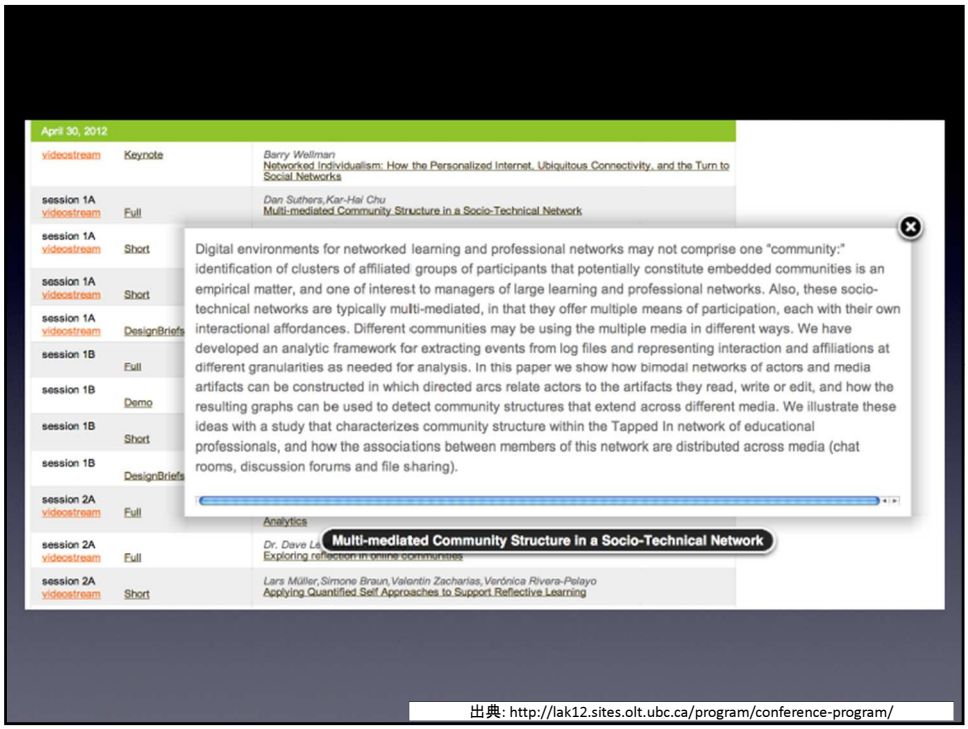

出典: http://lak12.sites.olt.ubc.ca/program/conference-program/

http://mediasite.mediagroup.ubc.ca/MediaGroup/SilverlightPlayer/Default.aspx?peid=a8fdea08119e47e29ea0468caaa1545b1d

Visual Analytics in Support of Education

Katy Börner
Royal Netherlands Academy of Arts and Sciences (KNAW),
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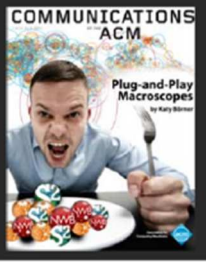
With special thanks to the members at the Cyberinfrastructure for Network Science Center and the Sci2, NWB, and EpiC teams

Learning Analytics and Knowledge
Vancouver, Canada
http://projects.arts.ubc.ca/lak12/

May 1, 2012

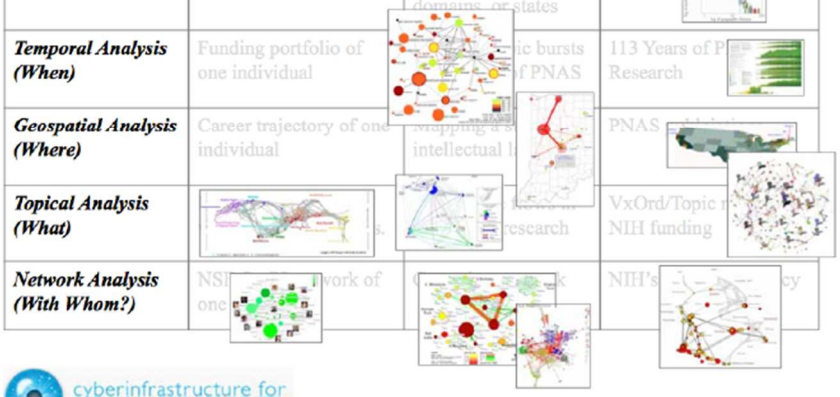
LAK2012



http://ivl.cns.iu.edu/km/pres/2012-borner-lak.pdf

Type of Analysis vs. Level of Analysis

	Micro/Individual (1-100 records)	*Meso/Local (101–10,000 records)*	*Macro/Global (10,000 < records)*
Statistical Analysis/Profiling	Individual person and their expertise profiles	Larger labs, centers, universities, research domains, or states	All of NS SA, all of sci
Temporal Analysis (When)	Funding portfolio of one individual	ic bursts f PNAS	113 Years of P Research
Geospatial Analysis (Where)	Career trajectory of one individual	intellectual l	PNAS
Topical Analysis (What)	s.	esearch	VxOrd/Topic m NIH funding
Network Analysis (With Whom?)	NSI work of one		NIH's cy



cyberinfrastructure for NETWORK SCIENCE CENTER

School of Library and Information Science | Indiana University Bloomington

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http://ivl.cns.iu.edu/km/pres/2012-borner-lak.pdf

Designing "Dream Tools"

Many of the best micro-, tele-, and macroscopes are designed by **scientists keen to observe and comprehend what no one has seen or understood before.** Galileo Galilei (1564–1642) recognized the potential of a spyglass for the study of the heavens, ground and polished his own lenses, and used the improved optical instruments to make discoveries like the moons of Jupiter, providing quantitative evidence for the Copernican theory.

Today, scientists **repurpose, extend, and invent new hardware and software** to create **"macroscopes"** that may solve both local and global challenges.

Plug-and-play macroscopes **empower** me, my students, colleagues, and 100,000 others that downloaded them.

http://ivl.cns.iu.edu/km/pres/2012-borner-lak.pdf

Macroscopes

Decision making in science, industry, and politics, as well as in daily life, requires that we make sense of data sets representing the structure and dynamics of complex systems. Analysis, navigation, and management of these continuously evolving data sets require a new kind of data-analysis and visualization tool we call a macroscope (from the Greek macros, or "great," and skopein, or "to observe") inspired by de Rosnay's futurist science writings.

Macroscopes provide a "vision of the whole," helping us "synthesize" the related elements and enabling us to detect patterns, trends, and outliers while granting access to myriad details. Rather than make things larger or smaller, **macroscopes let us observe what is at once too great, slow, or complex for the human eye and mind to notice and comprehend.**

Microscopes

Telescopes

Macroscopes

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CIShell Developer Guide

(*http://cishell.wiki.cns.iu.edu*)

CIShell Home

Edit Add

1 Added by Micah Linnemeier, last edited by Micah Linnemeier on Mar 16, 2011 (view change)

About the Cyberinfrastructure Shell

The Cyberinfrastructure Shell (CIShell) is an open source, community-driven platform for the integration and utilization of datasets, algorithms, tools, and computing resources. Algorithm integration support is built in for Java and most other programming languages. Being Java based, it will run on almost all platforms. The software and specification is released under an Apache 2.0 License.

CIShell is the basis of Network Workbench, TexTrend, Sci² and the upcoming EpiC tool.

CIShell supports remote execution of algorithms. A standard web service definition is in development that will allow pools of algorithms to transparently be used in a peer-to-peer, client-server, or web front-end fashion.

CIShell Features

A framework for easy integration of new and existing algorithms written in any programming language

Using CIShell, an algorithm writer can fully concentrate on creating their own algorithm in whatever language they are comfortable with. Simple tools are provided to then take their algorithm and

Learn More...

- CIShell Papers
- CIShell Powered Tools
- Algorithms
- Plugins (coming soon)
- Misc. Tool Documentation
- CIShell Web Services (coming soon)
- Screenshots

Getting Started...

- Documentation & Developer Resources
- Download

Getting Involved...

- Contact Us

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Network Workbench Tool
http://nwb.cns.iu.edu/

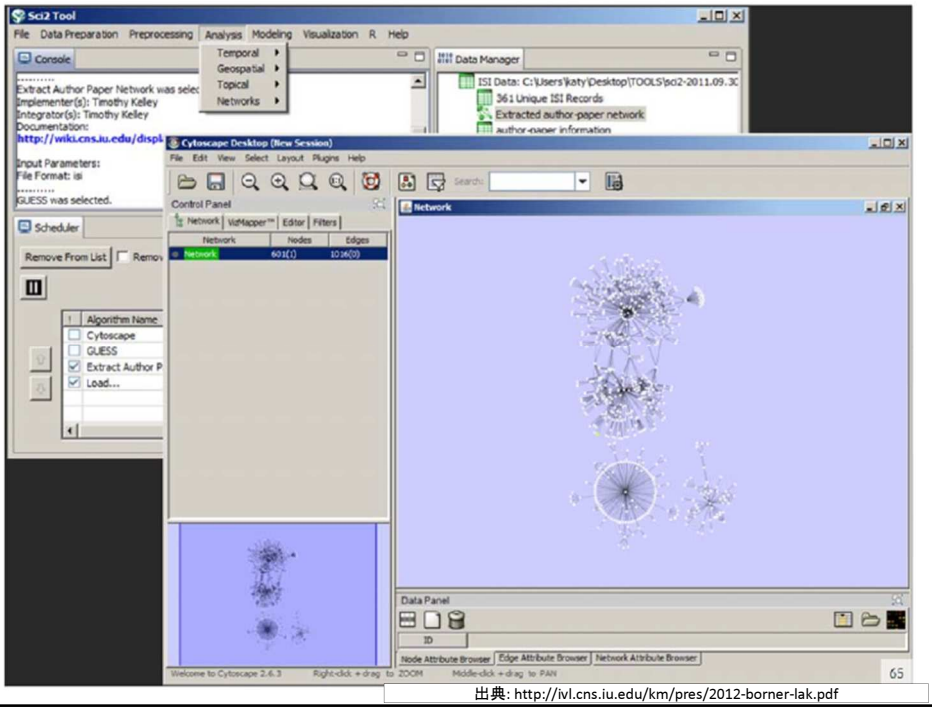
The Network Workbench (NWB) tool supports researchers, educators, and practitioners interested in the study of biomedical, social and behavioral science, physics, and other networks.

In February 2009, the tool provides more 169 plugins that support the preprocessing, analysis, modeling, and visualization of networks.

It has been downloaded more than 110,000 times since December 2006.

Herr II, Bruce W., Huang, Weixia (Bonnie), Penumarthy, Shashikant & Börner, Katy. (2007). Designing Highly Flexible and Usable Cyberinfrastructures for Convergence. In Bainbridge, William S. & Roco, Mihail C. (Eds.), Progress in Convergence - Technologies for Human Wellbeing (Vol. 1093, pp. 161-179), Annals of the New York Academy of Sciences, Boston, MA.

出典: http://ivl.cns.iu.edu/km/pres/2012-borner-lak.pdf



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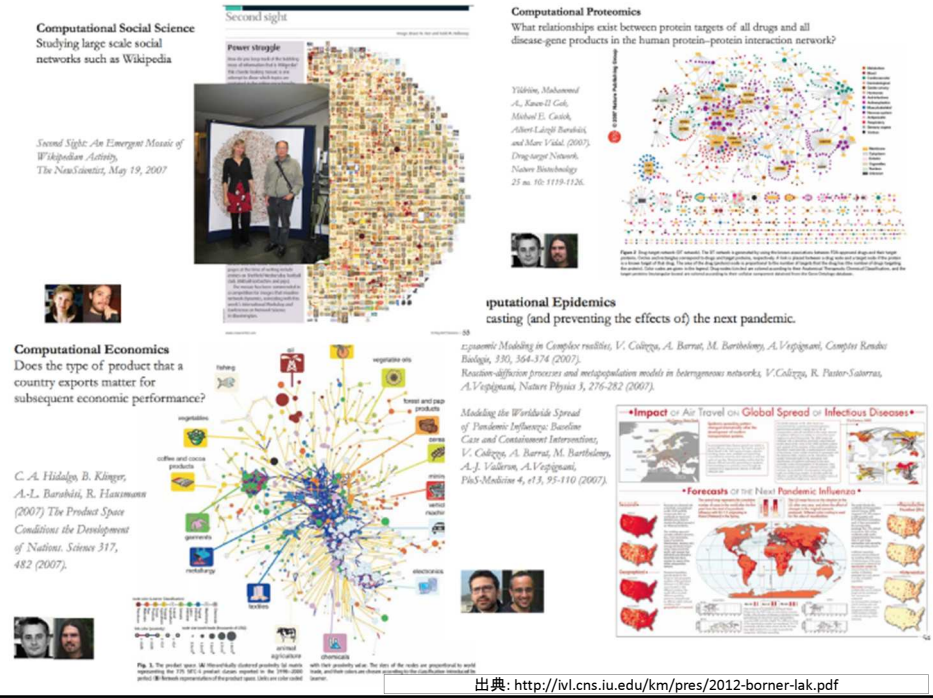

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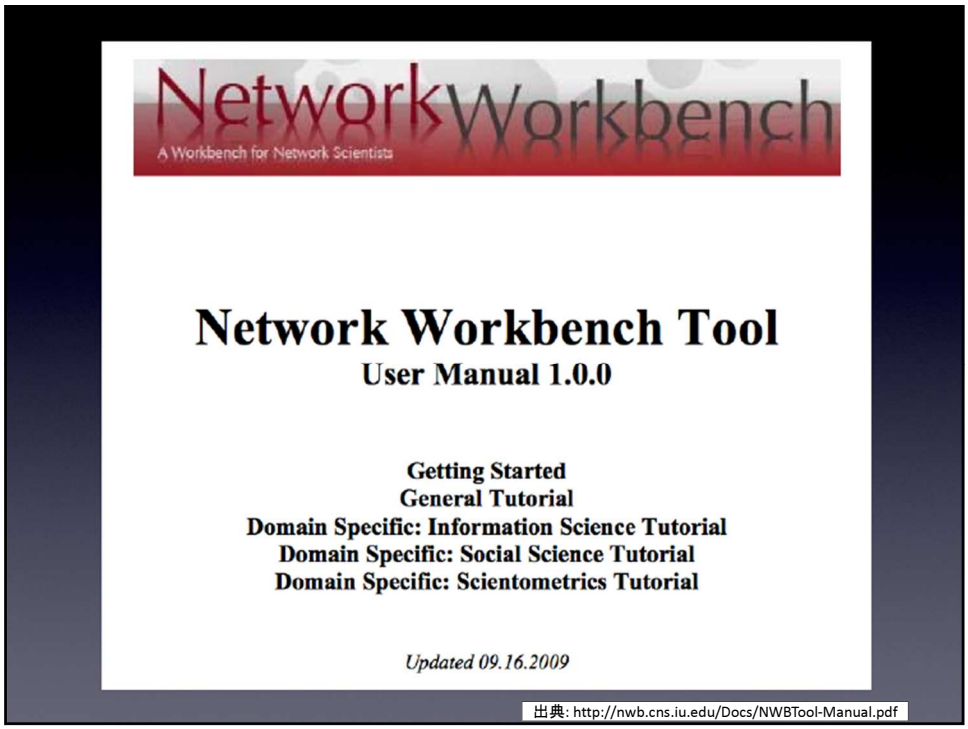

Learning Analytics: Envisioning a Research Discipline and a Domain of Practice

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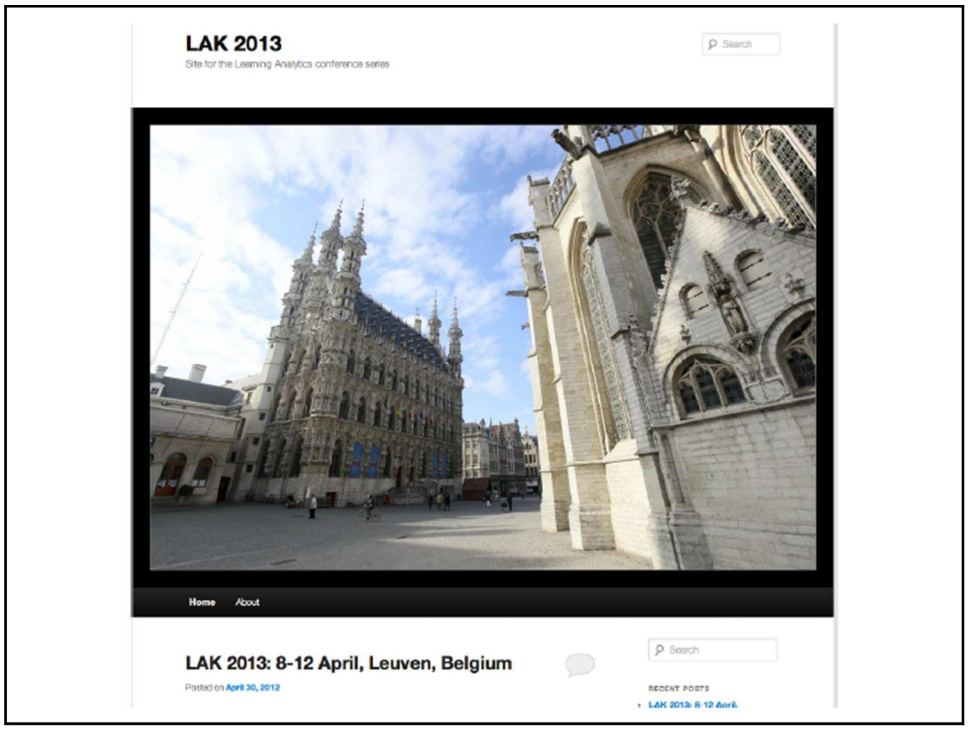
- Researcher
- Practitioner
- Vendor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