

NETWORKS AND NETWORK ANALYSIS FOR THE HUMANITIES

Program Schedule

In recent years, attention has been drawn in both the academic and popular press to the ubiquity of networks in everyday life, from communications networks to investment networks to power transmission networks to social networks. As a result of this increasing awareness, the study of the different types of networks that link us together, and the analysis of the structure of those networks has risen to greater and greater prominence not only in the mathematical and social sciences but also in the Humanities. The topics to be addressed in the Institute are: (a) the science of networks and networks in Humanistic inquiry (b) extracting and preparing Humanities data for network analysis (c) internal networks in Humanistic data: networks of characters, networks of texts, networks of language (d) external networks in Humanistic data: networks of influence, networks of production, networks of reception.

Organizing Committee:

Timothy Tangherlini (UCLA), Russ Cafilisch (IPAM), Tina Eliassi-Rad (LLNL), Peter Jones (Yale), Mark Green (UCLA), Ronald Coifman (Yale), Jonathan Berger (Stanford), Lewis Lancaster (Berkeley), Greg Crane (Tufts), Zoe Borovsky (UCLA)

Confirmed Speakers include:

James Abello (Rutgers), Edoardo Airoldi (Harvard), Eli Ben-Naim (Los Alamos), Jonathan Berger (Stanford), Luis Bettencourt (Los Alamos), David Birnbaum (Pitt), David Blei (Princeton), Katy Börner (Indiana), Greg Crane (Tufts), Ronald Coifman (Yale), James Danowski (Univ. Illinois, Chicago), Inderjit Dhillon (Texas), Fernando Diaz (Yahoo!), Tina Eliassi-Rad (LLNL), Lise Getoor (Maryland), Bernardo Huberman (HP), Yannet Interian (Google), Jon Kleinberg (Cornell), Aaron Koblin (Google), Lew Lancaster (UC Berkeley), Jure Leskovec (Stanford), David Liben-Nowell (Carleton), Sofus A. Macskassy (Fetch Technologies / USC), Lev Manovich (UCSD), Fil Menczer (Indiana), John Mohr (UCSB), Franco Moretti (Stanford), W. Brad Paley (Columbia), Fredrik Palm (HUMLab), Laurie Pearce (UC Berkeley), Vwani Roychowdhury (UCLA), Ray Siemens (Univ. Victoria), David Smith (UMass), Kryztof Urban (UCLA), John Walsh (Indiana), Steven Zucker (Yale)

Sunday, August 15, 2010 Day 0

11 AM - 5 PM • Fowler Museum
Overview and Orientation

11:00AM - 12:00PM

- Check-in

12:00AM - 1:30 PM

- Light Lunch

1:30PM - 2:00 PM

- Overview (Timothy Tangherlini)

2:00PM - 2:30PM

- Ann Fain - reimbursements, rules, locations

2:30PM - 3:00PM

- Coffee Break

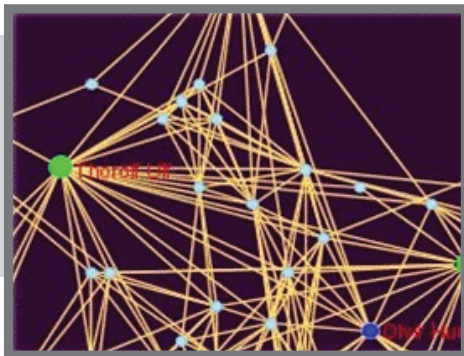
3:00PM - 3:30PM

- Introductions (TFs)

3:30PM - 5PM

- Introductions/Goals/Challenges
(Participants)





NETWORKS AND NETWORK ANALYSIS FOR THE HUMANITIES

Program Schedule

Monday, August 16, 2010 Day 1

8 AM - 9 PM

Introduction to Networks and
Network Analysis

8:00AM - 9:00AM

- Breakfast in **Royce 314**

9AM - 12PM Morning Session • Royce 314

9:00AM - 9:10AM

- Russ Cafilisch (Director, IPAM)

9:10AM - 9:15AM

- James Economou (Vice Chancellor for Research)

9:15AM - 9:25AM

- Tim Stowell (Dean of Humanities)

9:25AM - 9:35AM

- Brett Bobley (NEH)

9:45AM - 10:30AM

- Timothy Tangherlini (UCLA)

“Maps and Networks in

the Study of Folklore”

10:30AM - 11:00AM

- Coffee Break

11:00AM - 12:00PM

- Yannet Interian (Google)

“Introduction to Network Analysis”

1:30PM - 5PM Afternoon Session • Royce 314

1:30PM - 2:30PM

- Tina Eliassi-Rad (Rutgers)

“Introduction to Mining and Learning on Graphs”

2:30PM - 3:30PM

- John Mohr (UCSB)

“Network Methods, Texts, and the Formal Analysis
of Social Institutions”

3:30PM - 4:00PM

- Coffee Break

4:00PM - 5:00PM

- Katy Börner (Indiana)

“Designing Insightful Network Visualizations”

Monday, August 16, 2010 Day 1 (cont.)

7:30PM - 9:30PM Evening Lecture • Royce 314

7:30PM - 8:30PM

- Jon Kleinberg (Cornell)

“Tracing the Flow of Information through
Complex Networks”

8:30PM - 9:30PM

- Reception in **Royce 306**

Tuesday, August 17, 2010 Day 2

8 AM - 9 PM

Essential Tools

8:00AM - 9:00AM

- Breakfast in **Rice Room**

9AM - 12PM Morning Session • Rice Room

9:00AM - 12:00PM

- Katy Börner (Indiana) &

Scott Weingart (Indiana)

“Network Workbench hands-on workshop”

1PM - 2PM Afternoon Session • Royce 314

1:00PM - 2:00PM

- Success Story 1: Jonathan Berger (Stanford)

“Auditory display of multivariate data”

2PM - 5PM Workshop • Rice Room

2:00PM - 5:00PM

- James Danowski (UChicago) &

Zoe Borovsky (UCLA)

“Wordij hands-on workshop”

7:30PM - 9:30PM Evening Lecture • Royce 314

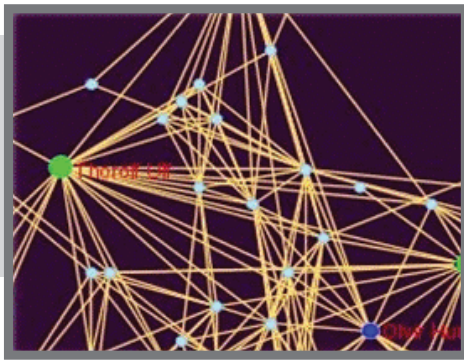
7:30PM - 8:30PM

- Franco Moretti (Stanford)

“Network theory and plot analysis”

8:30PM - 9:30PM

- Reception in **Royce 306**



NETWORKS AND NETWORK ANALYSIS FOR THE HUMANITIES

Program Schedule

Wednesday, August 18, 2010 Day 3

8 AM - 5:30 PM

Network Analysis and Visualization

8:00AM - 9:00AM

- Breakfast in **Royce 314**

9AM - 12PM Morning Session • Royce 314

9:00AM - 10:00AM

- **Vwani Roychowdhury (UCLA)**
“Mining and Modeling Human-Activity Networks:
Lessons, Revelations, and Applications”

10:00AM - 11:00AM

- **Luis Bettencourt (Los Alamos)**
“Scientific Discovery and Topological Transitions in
Collaboration Networks”

11:00AM - 12:00PM

- **James Abello (Rutgers)**
“From Data Bases to Link Analysis”

1PM - 2PM Afternoon Session • Royce 314

1:00PM - 2:00PM

- **Success Story 2: Lew Lancaster (UC Berkeley)**
“From Text to Image to Analysis: Visualization of
Chinese Buddhist Canon”

2:30PM - 5:30PM Workshop • Rice Room

2:30PM - 5:30PM

- **James Abello (Rutgers) &
Nischal Devanur (Rutgers)**
Hands-on workshop

Thursday, August 19, 2010 Day 4

8 AM - 5 PM

More Essential Tools

8:00AM - 8:30AM

- Breakfast in **Rice Room**

8:30AM - 12:30PM Morning Session • Rice Room

8:30AM - 12:30AM

- **David Smith (U Mass) & David Mimno (U Mass)**
“Workshop: Network extraction with MALLET”

1:30PM - 2:30PM Afternoon Session • Royce 314

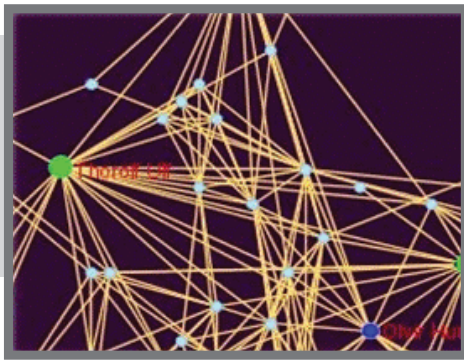
1:30PM - 2:30PM

- **Success Story 3: Greg Crane (Tufts)**
“Digital Incunabula and the Perseus Project”

3:00PM - 5:30PM Workshop • Rice Room

3:00PM - 5:30PM

- **Alex Yahja (UIUC)**
Hands-on workshop on Casos/ORa software



NETWORKS AND NETWORK ANALYSIS FOR THE HUMANITIES

Program Schedule

Friday, August 20, 2010
Day 5

8 AM - 10 PM

Social Networks

8:00AM - 9:00AM

- Breakfast in **Royce 314**

9AM - 12PM Morning Session • Royce 314

9:00AM - 10:00AM

- **W. Brad Paley** (Columbia)
"Visual Network Rendering Techniques for (and From) the Humanities"

10:00AM - 11:00AM

- **Daniel McFarland** (Stanford)
"Role-Structures in Letter Writing Cliques"

11:00AM - 12:00PM

- **David Liben-Nowell** (Carleton)
"Petitions, Protests, and Propagation"

1PM - 2PM Afternoon Session • Royce 314

1:00PM - 2:00PM

- **Jonathan Chang** (Facebook)
"Facebook: The Modern Story-Telling Medium"

2PM - 5PM Workshop • Rice Room

2:00PM - 5:00PM

- **Dan McFarland** (Stanford)
Hands-on workshop - SoNIA

7:30PM - 10:30PM Evening Session • Royce 314

7:30PM - 9:30PM

- **Aaron Koblin** (Google)
W. Brad Paley (Columbia) &
Jonathan Berger (Stanford)
"The Aesthetics of Data"

9:30PM - 10:30PM

- Reception in **Royce 306**

Monday, August 23, 2010
Day 6

8 AM - 9 PM

Language and Networks

8:00AM - 9:00AM

- Breakfast in **IPAM**

9AM - 12PM Morning Session • IPAM

9:00AM - 10:00AM

- **Kryztof Urban** (UCLA)
"Using a word space model to find meaningful relations between keywords"

10:00AM - 11:00AM

- **David Blei** (Princeton)
"Network analysis and document collections:
Finding the graph in the text and the
text in the graph"

11:00AM - 12:00PM

- **Tina Eliassi-Rad** (LLNL/Rutgers)
"A Hybrid Community Discovery Framework for
Complex Networks"

1PM - 2PM Afternoon Session • IPAM

1:00PM - 2:00PM

- **Success Story 4: John Walsh** (Indiana)
"Threads in the unseen woof thy music weaves":
Some Visualized Networks in
Nineteenth-Century Poetry

2PM - 5PM Workshop • Rice Room

2:00PM - 5:00PM

- **Eliassi-Rad with Keith Henderson** (LLNL)
Hands-on workshop

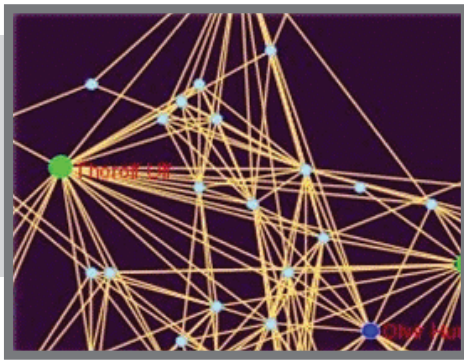
7:30PM - 9:30PM Evening Session • IPAM

7:30PM - 8:30PM

- **Ronald Coifman** (Yale)
"Mathematical Self Organization of Concept/
Context Dualities in Digital Databases, with
Applications to the Analysis of Questionnaires,
Music, Text"

8:30PM - 9:30PM

- Reception in **IPAM**



NETWORKS AND NETWORK ANALYSIS FOR THE HUMANITIES

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Tuesday, August 24, 2010 Day 7

8 AM - 10 PM

Supervised and Semi-Supervised Learning

8:00AM - 9:00AM

- Breakfast in **IPAM**

9AM - 12PM Morning Session • IPAM

9:00AM - 10:00AM

- Lise Getoor (Maryland)
"Identifying Networks from Noisy and Incomplete Data"

10:00AM - 11:00AM

- Steve Zucker (Yale)
"Diffusion Maps in Social Data Analysis: Two Experiments"

11:00AM - 12:00PM

- Fernando Diaz (Yahoo!)
"Inferring Romantic Links from Data"

1PM - 2PM Afternoon Session • IPAM

1:00PM - 2:00PM

- Success Story 5: David Birnbaum (Pitt)
"The Possibilities and Limitations of Network Analysis Tools in Philological Research"

2PM - 5PM Workshop • Rice Room

2:00PM - 3:00PM

- Sofus A. Macskassy (Fetch Technologies / USC)
"Efficient Machine Learning on Large Networks by Leveraging Homophily"

3:00PM - 5:00PM

- Sofus A. Macskassy (Fetch Technologies / USC)
Hands-on workshop

7:30PM - 9:30PM Evening Session • IPAM

7:30PM - 8:30PM

- Ray Siemens (University of Victoria)
"Networks and the History of the Book"

8:30PM - 9:30PM

- Reception in **IPAM**

Wednesday, August 25, 2010 Day 8

8 AM - 5:30 PM

Unsupervised Learning

8:00AM - 9:00AM

- Breakfast in **IPAM**

9AM - 12PM Morning Session • IPAM

9:00AM - 10:00AM

- Edoardo Airoldi (Harvard)
"Modeling approaches for analyzing complex networks"

10:00AM - 11:00AM

- Jure Leskovec (Stanford)
"Exploring the Structure of Online Social Networks: The Role of Positive and Negative Links"

11:00AM - 12:00PM

- Inderjit Dhillon (U Texas Austin)
"Fast and accurate low rank approximation of massive graphs"

1PM - 3PM Afternoon Session • IPAM

1:00PM - 2:00PM

- Success Story 6: Laurie Pearce (UC Berkeley)
"(Re-)constructing Cuneiform Communities: ancient and modern"

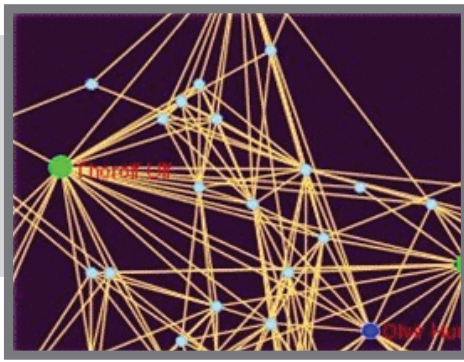
2:00PM - 3:00PM

- Eli Ben Naim (Los Alamos)
"TBA"

3:15PM - 5:30PM Workshop • Rice Room

3:15PM - 5:30PM

- Hossein Azari Soufiani (Harvard) & Nikola Andric (Edo Airoldi Lab)
Hands-on workshop



NETWORKS AND NETWORK ANALYSIS FOR THE HUMANITIES

Program Schedule

Thursday, August 26, 2010
Day 9

8 AM - 8 PM

Text and Databases

8:00AM - 9:00AM

- Breakfast in **IPAM**

9AM - 12PM Morning Session • IPAM

9:00AM - 10:00AM

- Fil Menczer (Indiana)

“Modeling statistical properties of written text”

10:00AM - 11:00AM

- Fredrik Palm (UMEÅ HumLab)

“Abstracting Query Building for
Multi-Entity Faceted Browsing”

11:00AM - 12:00PM

- Lev Manovich (UCSD)

“How to read 1,000,000 Manga pages? Computer
Image Analysis and Visualization of patterns in
large visual data sets”

2PM - 3:30PM Afternoon Session • IPAM

2:00PM - 3:30PM

- Concluding Keynote Address:
Bernardo Huberman (HP)
“Social Media and Attention”

3:45PM - 8PM Evening Session • IPAM

3:45PM - 6:15PM

- Lightning presentations of preliminary
ideas (15 presenters / 5+3 min each)

6:15PM - 8:00PM

- Concluding Reception in **IPAM**

Friday, August 27, 2010
Day 10

8 AM - 5:30 PM

Presentations and Conclusion

8:00AM - 9:00AM

- Breakfast in **IPAM**

9AM - 12PM Morning Session • IPAM

9:00AM - 12:00PM

- Lightning presentations
(20 presenters / 5+3 min each)

12:00pM - 1:00PM

- Lunch in **IPAM**

1PM - 2:30PM Afternoon Session • IPAM

1:00PM - 1:10PM

- Evaluation return

1:10PM - 1:30PM

- Explain the format for the
2011 Symposium

1:30PM - 2:00PM

- Chart possibilities for future collaborations

2:00PM - 2:30PM

- Graduation