

# Lada A. Adamic

School of Information & Center for the Study of Complex Systems  
University of Michigan  
304 West Hall  
1085 S University Ave.

**Office:** (734) 615-2132, **Home:** (734) 913-4917

**E-mail:** ladamic@umich.edu

**URL:** <http://www-personal.umich.edu/~ladamic>

## RESEARCH INTERESTS:

I am interested in information dynamics in networks: how information influences the evolution of networks, how network structure influences the flow of information, and how social networks can be navigated.

## EMPLOYMENT:

09/2005 —	<b>University of Michigan: School of Information &amp; Center for the Study of Complex Systems</b> Assistant Professor	Ann Arbor, MI
07/2001 — 08/2005	<b>HP Labs</b> Research scientist	Palo Alto, CA

## EDUCATION:

07/1997 — 06/2001	<b>Stanford University</b> Ph.D., Applied Physics	Stanford, CA
9/1993 — 06/1997	<b>California Institute of Technology</b> B.S., Physics B.S., Engineering and Applied Science	Pasadena, CA

## REFEREED CONFERENCE, JOURNAL, and WORKSHOP PAPERS:

- Eytan Bakshy, Brian Karrer, Lada Adamic, Social influence and the diffusion of user created content, EC'09, San Jose, CA, 2009.
- Xiaolin Shi, Belle Tseng, Lada Adamic. Information Diffusion in Computer Science Citation Networks. ICWSM2009, San Jose, CA, 2009, Poster.
- K. K. Nam, L. A. Adamic, M.S. Ackerman, "Questions in, Knowledge iN? A Study of Naver's Question Answering Community", CHI'2009, Boston, MA.
- J. Yang, L. A. Adamic, M.S. Ackerman, 'Crowd sourcing and knowledge sharing: Strategic user behavior on Taskcn', EC'08, Chicago, IL, 2008.
- L. A. Adamic, J. Zhang, E. Bakshy, M.S. Ackerman, 'Knowledge Sharing and Yahoo Answers: Everyone knows something', WWW2008, Beijing, China, 2008.
- X. Shi, M. Bonner, L. A. Adamic, A. Gilbert, The very small world of the well-connected , in Hypertext'08, Pittsburgh, PA, 2008. **Doug Engelbart Best Paper Award**
- J. Yang, L. A. Adamic, M.S. Ackerman, 'Competing to Share Expertise: the Taskcn Knowledge Sharing Community', ICWSM 2008, Seattle, WA, 2008.
- L. A. Adamic, S. K. Bhavnani, and X. Shi, 'Scatter Networks: A New Approach for Analyzing Information Scatter on the Web', New Journal of Physics, 9, p.231, 2007.

- J. Zhang, M. S. Ackerman, and L. A. Adamic, 'QuME: A Mechanism to Support Expertise Finding In Online Help-seeking Communities', *UIST2007*, Newport, RI, 2007.
- J. Zhang, M. S. Ackerman, and L. A. Adamic, 'CommunityNetSimulator: Using simulations to study online community networks', *C&T2007*, Lansing, MI, 2007.
- J. Zhang, M. S. Ackerman, and L. A. Adamic, 'Expertise networks in online communities: structure and algorithms', *WWW2007*, Banff, Canada, 2007.
- N. F. Ali-Hasan and L. A. Adamic, 'Expressing social relationships on the blog through links and comments', *ICWSM2007*, Boulder, CO, 2007.
- X. Shi, B. Tseng, and L. A. Adamic, 'Looking at the blogosphere through different lenses', *ICWSM2007*, Boulder, CO, 2007.
- X. Shi, L. A. Adamic, M. J. Strauss, "Networks of Strong Ties", *Physica A*, 378(1): 33-47, 2007.
- J. Leskovec, L.A. Adamic, and B.A. Huberman, 'The Dynamics of Viral Marketing' (journal version), *ACM TWeb* 1(1), 2007.
- J. Leskovec, L.A. Adamic, and B.A. Huberman, 'The Dynamics of Viral Marketing', *ACM Conference on Electronic Commerce*, Ann Arbor, MI, June 11-15, 2006.
- L. A. Adamic and E. Adar, "How to search a social network", *Social Networks*, 27(3):187-203, July 2005.
- E. Adar and L. A. Adamic, 'Tracking Information Epidemics in Blogspace', *Web Intelligence 2005*, Compiègne, France, Sept. 19-22, 2005.
- L. A. Adamic and N. Glance, 'The Political Blogosphere and the 2004 U.S. Election: Divided They Blog', *Annual Workshop on the Weblogging Ecosystem*, *WWW2005*, Japan, 2005.
- T. Hogg and L. A. Adamic, 'Enhancing reputation mechanisms via online social networks', *ACM EC'06*, New York, NY, 236-237, 2004. (short paper)
- E. Adar, L. Zhang, L. A. Adamic, R. M. Lukose, 'Implicit Structure and the Dynamics of Blogspace', *WWW 2004 Workshop on the Weblogging Ecosystem*, New York, NY May 2004.
- F. Wu, B. A. Huberman, L.A. Adamic and J.R. Tyler, 'Information flow in social groups', *Physica A*, 337:327-335, 2004.
- L. A. Adamic and E. Adar, 'Friends and neighbors on the Web', *Social Networks*, 25(3):211-230, 2003.
- L. A. Adamic, O. Buyukkokten and E. Adar, 'A social network caught in the Web', *First Monday*, June 2003.
- L. A. Adamic, D. M. Wilkinson, B. A. Huberman and Eytan Adar, 'A Literature Based Method for Identifying Gene-Disease Connections', *CSB2002*, Stanford, CA, August 2002.
- L. A. Adamic and E. Adar, 'You are what you link', *10th International World Wide Web Conference*, Hong Kong, China, May 2001 (in online proceedings).
- L. A. Adamic, R. M. Lukose, A. R. Puniyani, and B. A. Huberman, 'Search in power-law networks', *Phys. Rev. E* 64:046135, 2001.
- L. A. Adamic and B. A. Huberman, 'The nature of markets in the World Wide Web', *Quarterly Journal of Electronic Commerce*, 1:5-12, 2000.
- L. A. Adamic, 'The Small World Web', *Proceedings of the 3<sup>rd</sup> European Conf. on Digital Libraries*, Springer, 443-452, 1999.
- B. A. Huberman and L. A. Adamic, 'Growth Dynamics of the World Wide Web', *Nature* 410:131, 1999.

#### REFEREED BOOK CHAPTERS:

- L. A. Adamic and B. A. Huberman, "Information dynamics in a networked world", In *Complex Networks*, Eli Ben-Naim et al., editors. Lecture Notes in Physics, Springer, 2003.

- L. A. Adamic, R. M. Lukose and B. A. Huberman, "Local Search in Unstructured Networks", in *Handbook of Graphs and Networks: From the Genome to the Internet*, S. Bornholdt, and H.G. Schuster (eds.), Wiley-VCH, Berlin, 2002.

#### **TECHNICAL REPORTS AND MISCELLANEOUS NON-REFEREED PUBLICATIONS:**

- M. Hindman and L. A. Adamic, 'Lawmaking and Law Unmaking: A Survival Model of the Federal Law in the United States', presented at MPSA, Chicago, IL, April 2009.
- L. A. Adamic, 'The Web Graph', in *Encyclopedia of Complex Systems*, Springer, 2009.
- D. Lazer, A. Pentland, L. Adamic, S. Aral, A. L. Barabasi, D. Brewer, N. Christakis, N. Contractor, J. Fowler, M. Gutman, T. Jebara, G. King, M. Macy, D. Roy, M. Van Alstyne, 'Computational Social Science', *Science* 323 (5915), p. 721, 2009.
- L. A. Adamic, 'The Social Hyperlink', chapter in *The Hyperlinked Society*, J. Turow (Ed), UofM press, 2009.
- L. A. Adamic, E. Adar, and J. O'Madadhain, 'PeopleFinder<sup>2</sup>', HP Labs technical report, 2004.
- L. A. Adamic and B. A. Huberman, 'A tool for discovering knowledge communities', *HP TechCon '04*.
- L. A. Adamic and R. M. Lukose, 'Random Networks Growing Under a Diameter Constraint. HP Labs technical report, 2003. <http://xyz.lanl.gov/abs/cond-mat/0301034>
- L. A. Adamic and B. A. Huberman, 'Zipf's law and the internet', *Glottometrics* 3:143-150, 2002.
- L. A. Adamic and B. A. Huberman, 'The Web's Hidden Order', *Communications of the ACM*, 44 (9):55-60, 2001.

#### **WORKING PAPERS:**

- X. Shi, L. Adamic, B. Tseng, and G. Clarkson, 'The impact of boundary spanning scholarly publications and patents', submitted to *PLoS*.
- L. Adamic, X. Wei, J. Yang, K. Nam, and G. Clarkson, 'Individual Focus and Knowledge Contribution', draft.
- L. Adamic, C. Brunetti, J. Harris, and A. Kirilenko, 'On the Informational Properties of Trading Networks', draft.

#### **PH. D. THESIS:**

- L. A. Adamic, 'Network Dynamics: The World Wide Web', Applied Physics PhD thesis, Stanford University, 2001. Thesis advisor: Prof. Bernardo A. Huberman

#### **U.S. PATENTS:**

- Eytan Adar and Lada A. Adamic, U.S. Patent 7136876: Method and system for building an abbreviation dictionary.
- Eytan Adar, Lada A. Adamic and Francine Chen, U.S. Patent 07162522: User profile classification by web usage analysis.
- Natalie S. Glance, Bernardo A. Huberman, Lada A. Adamic, and Jim Pitkow. U.S. Patent 6631451 & 6415368: System and method for caching

#### **SYSTEMS BUILT:**

**PeopleFinder<sup>2</sup>** – a search engine for finding expertise within the enterprise  
**Knowledge Brief Navigator** – recommender system of technical documents  
**GeneLit** – A system for identifying gene-disease connections from Medline  
**Stanford Social Web** – navigation interface to networks of personal homepages

#### GRANTS:

- T. Finin A Framework for Managing the Assured Information Sharing Lifecycle, Multi-disciplinary University Research Initiative (MURI), AFOSR, 2008-11. (co-PI)
- L. A. Adamic, 'Information Dynamics in Virtual Spaces', \$413,000 NSF CAREER IIS.
- L. A. Adamic, 'Diversity and impact in collective endeavors', Rackham Faculty Research Grant, 0.25 GSRA fall'08-winter'09.
- L. A. Adamic and M. S. Ackerman, 'Identifying and harnessing expertise in online forums', Army Research Institute, \$87,000 Sept 2007 – Sept 2008
- L. A. Adamic, 'Information diffusion and evolution in online communities', IC postdoctoral fellowship, \$200,000 2 years starting Jan. 2008
- L. A. Adamic, 'Information diffusion across community boundaries', NEC Laboratories, \$18,000 Sept. – Dec. 2007
- L. A. Adamic and C. P. Simon, 'Networks Across Disciplines', a Rackham Interdisciplinary Workshop. \$9,000 3 semesters, Jan 2006 – Jun 2007
- L. A. Adamic and S. Bhavnani, 'VISP – Visualizing Information Search Processes', Microsoft Live Labs, \$49,250 1 year, Jun 2006 – Sept 2007

#### INVITED TALKS:

- (Jun 29<sup>th</sup>, 2009) Keynote speaker, Hypertext 2009
- (April 24<sup>h</sup>, 2009) Studying Society in a Digital World Conference, Princeton
- (April 17<sup>th</sup>, 2009) Rutgers LIS Research Talk
- (Feb 27<sup>th</sup>, 2009) Princeton Center for IT Policy seminar
- (Feb 19<sup>th</sup>, 2009) UIUC HCI Seminar
- (Feb 16<sup>th</sup>, 2009) University of Minnesota Computer Science Seminar
- Nov 13<sup>th</sup>, 2008 Georgia Tech Web Science Seminar
- Nov 6<sup>th</sup>, 2008 NIH workshop on "Modeling Social Behavior"
- May 27<sup>th</sup> 2008 Yahoo, NY Research Seminar
- May 5<sup>th</sup> 2008 Google/CMU machine learning seminar, Pittsburgh, PA
- April 11<sup>th</sup> 2008 workshop on economic networks @ Stanford
- March 20<sup>th</sup> 2008 Notre Dame Network Science Seminar
- March 14<sup>th</sup> 2008 UMD Computer Science Seminar
- Feb. 26<sup>th</sup> 2008 KDD conference, Oakridge, TN
- Feb. 1<sup>st</sup> 2008 Peer production meeting @ Yahoo, NY.
- Jan. 15<sup>th</sup> 2008 Communication dept. seminar, Northwestern, IL
- Dec. 7<sup>th</sup>, 2007 Computational Social Science Conference, Harvard, MA,
- Oct. 18<sup>th</sup>, 2007 NYU Stern School of Business IOMS Lecture.
- June 2007 'Data dump: a closer look at online social activity', *Supernova 2007*, San Francisco, CA.
- May 2007 'Expertise networks in online communities: structure and algorithms', *NetSci 2007*, New York, NY
- April 20<sup>th</sup>, 2007, The USMA-ARI Network Science Workshop, West Point, NY
- March 31, 2007, Cornell Microsoft International Symposium on Self-Organizing Online Communities, Ithaca, NY.
- November 28<sup>th</sup>, 2006, AI Seminar, University of Michigan, Ann Arbor, MI
- November 10<sup>th</sup>, 2006, Cornell ISS Networks Workshop: Search and Diffusion on Social Networks, Ithaca, NY

October 20<sup>th</sup>, 2006 Radcliffe Exploratory Seminar: Dynamic Networks: Behavior, Optimization and Design, Cambridge, MA  
 June 9<sup>th</sup>, 2006 Annenberg Hyperlinked Society Conference, Philadelphia, PA  
 May 16<sup>th</sup>, 2006 NetSci Workshop, Bloomington Indiana  
 May 23<sup>rd</sup>, 2006 NetSci Conference, Bloomington Indiana  
 May 4<sup>th</sup> and 9<sup>th</sup>, 2006 Google Tech Talks, Mountain View, CA  
 January 27<sup>th</sup>, 2006, Futurtech, Virtual links panel, U Michigan  
 January 12<sup>th</sup>, 2006, STIET seminar, U Michigan  
 December 13<sup>th</sup>, 2005, lecturer, International School on Semiotic Dynamics, Language and Complexity, Erice, Italy  
 November 9<sup>th</sup>, 2005, MOCHI seminar, U Michigan  
 October 8<sup>th</sup>, 2005, Reflections | Projections 2005, UIUC  
 August 3<sup>rd</sup>, NEC Labs, Cupertino, CA  
 June 13<sup>th</sup>, 2005, Agent Network Dynamics and Intelligence '05, Kitakyushu city, Japan  
 May, 20<sup>th</sup> 2005, Solomon seminar, Josef Stefan Institute, Ljubljana, Slovenia.  
 May 16-28<sup>th</sup>, 2005, lecturer, School and Workshop on Structure and Function of Complex Networks, Trieste, Italy  
 January 28, 2005, "Information Dynamics in a Networked World", Indiana University  
 November 2004. 'Implicit structure and the dynamics of blogspace', *Accelerating Change 2004*, Stanford, CA,  
 May 2004 'Information Flow in Social Groups', *CNLS Conference on Networks*, Santa Fe, NM.,  
 March 3, 2004 "How to search in a small world", Lawrence Livermore National Lab  
 October 23, 2003, "A social network caught in the Web", Mills College  
 June 2002. 'Local search in unstructured networks', *XVIII Sitges Conference on Statistical Mechanics*, Sitges, Spain,  
 November 2001 'P2PSearch that scales', *O'Reilly Peer-to-Peer & Web Services Conference*, Washington, D.C..  
 May 5, 2000, "Hidden order in the Web", Stanford University

## CONFERENCE AND WORKSHOP COMMITTEES:

Program Committee, Social Mobile Web workshop at SocialCom'09  
 Program Committee, IEEE Social Computing 2009  
 Program Committee, EC 2009  
 Program Committee, ICWSM 2009  
 Program Committee, Web Search Click Data Workshop at WSDM  
 Co-chair, WWW2009 Social Networks and Web 2.0 track  
 Program Committee, SSM 2008, CIKM workshop on Search in Social Media  
 Program Committee, WOSN 2008 – The First ACM SIGCOMM Workshop on Online Social Networks  
 Program Committee, HT'08, ACM Hypertext 2008 Social Linking track  
 Program Committee, ICWSM 2008, International Conference on Weblogs and Social Media  
 Deputy-chair, WWW2008 Social Networks and Web 2.0 track  
 Organizing committee, 2007 German-American Frontiers of Science meeting  
 Program Committee, ICDM 07 workshop on Data Mining in Web 2.0 Environments  
 Program Committee, WEBKDD/SNAKDD07,  
 Program Committee, AAAI-07, Artificial intelligence and the Web  
 Program Committee, WWW2007 Search Track  
 Program Committee, AAAI-06, Artificial intelligence and the Web  
 Program Committee, AIRWeb 2006  
 Program Committee, TextGraph 2006  
 Program Committee, 2006 ACM Conference on Electronic Commerce  
 Organizing committee, 2006 German-American Frontiers of Science meeting  
 Program committee, ISWC-2005 Workshop on: Semantic Network Analysis, Galway Ireland, November 9<sup>th</sup>, 2004.  
 Program committee, Link-KDD 2005  
 Program committee, WWW 2005 2<sup>nd</sup> Annual Workshop on the Weblogging Ecosystem  
 Program committee, 2004 Workshop on Algorithms and Models for the Web-Graph (WAW2004)

Program committee, FOAF Workshop on Friend of a Friend, Social Networking and the (Semantic) Web 2004.

Program committee, Workshop on Link Analysis and Group Detection (LinkKDD2004), August 2004.

Co-chair, WWW 2004 Workshop on the Weblogging Ecosystem: Aggregation, Analysis and Dynamics.

Program committee, 2<sup>nd</sup> International Workshop on Web Dynamics, 2002.

#### **JOURNAL REVIEWING:**

Science, Nature, PNAS, Physical Review Letters, Physical Review E, Physica A, New Journal of Physics, Lecture Notes in Physics, Communications of the ACM, Journal of Bioinformatics and Computational Biology, IEEE transactions on Parallel and Distributed Systems, IEEE Internet Computing, Journal of Computer-Mediated Communication, ACM Transactions on the Web, IOP, JSTAT.

#### **PH. D. STUDENTS ADVISED:**

Xiaolin Shi, EECS, Jan 2006--, information dynamics in social networks  
(co-advised with Martin Strauss)

Eytan Bashy, SI, Sept 2007--

Jiang Yang, SI, Jan 2008 – (co-advised with Mark Ackerman)

#### **PH.D. COMMITTEES:**

Gunes Erkan (chair: Drago Radev) U. Michigan EECS 2006

Elizabeth Leicht (chair: Mark E. J. Newman) U. Michigan Physics 2008

Jun Zhang (chair: Mark Ackerman) U. Michigan SI 2008

Samir Shah (chair: Brian Noble) U. Michigan EECS 2009

Sarita Yardi (chair: Amy Bruckman) Georgia Tech HCC 2010 (expected)

Eric Gilbert (chair: Karrie Karahalios) UIUC Computer Science 2010 (expected)

Gourab Goshal (chair: M. E. J. Newman) U. Michigan Physics 2009 (expected)

Hiroshi Onishi (chair: Puneet Manchanda) U. Michigan Business 2010 (expected)

Brian Karrer (chair: M. E. J. Newman) U. Michigan Physics

#### **SUMMER INTERNS SUPERVISED:**

Jure Leskovec, 2005, Ph.D. student in Computer Science from CMU. Jure analyzed the statistical properties of a large scale recommendation network.

Joshua O'Madadhain, 2004, Ph.D. student in Computer Science from UC Irvine. His project included applying link prediction to email networks as well as using predictive metrics to filter inaccurate social network data.

#### **RESEARCH EXPERIENCE:**

**HP Labs**, 2001-2005

Research Staff Member

Worked on various research projects relating to networks constructed from large data sets. These projects included mining the medical literature for gene-disease connections, tracking and modeling information flow in email and blog networks, modeling search processes on real-world social networks, and building expertise-finding systems for HP's internal use.

**Stanford University/ Xerox PARC**, 1997 — 2001

Graduate Research Assistant

I had the opportunity to work on my PhD at Stanford while collaborating with researchers at Xerox PARC, since my advisor, Prof. Bernardo A. Huberman was affiliated with both. I modeled growth and search processes of the internet.

**Caltech**, 1996-1997 Undergraduate Research Assistant  
Worked under the supervision of Prof. Harry A. Atwater on materials deposition with pulsed laser ablation.

**Caltech**, 1994-1995 Undergraduate Research Assistant  
Worked under the supervision of Prof. Donald Burnett and Dr. Roger Wiens on designing an electrostatic solar wind concentrator for the Genesis mission.

**PROFESSIONAL AFFILIATIONS:**

ACM, AAAI

*last updated May 2009*