

Nitin Agarwal

Information Science Department, University of Arkansas at Little Rock
Email: nxagarwal@ualr.edu, Phone: (501) 683-7155, URL: <http://www.ualr.edu/nxagarwal/>

EDUCATION

Arizona State University	Ph.D. (Computer Science)	August 2009
Indian Institute of Information Technology	B. Tech. (Information Technology)	May 2003

PROFESSIONAL EXPERIENCE

Assistant Professor (tenure-track):	Information Science Department, University of Arkansas at Little Rock, August 2009 – Present
Graduate Research Associate:	School of Computing and Informatics, Arizona State University, February 2008 – July 2009
Graduate Research Associate:	Hispanic Research Center, Arizona State University, September 2003 – January 2009

RESEARCH INTERESTS

- Social Computing; Knowledge discovery in Social Media and Web 2.0; Modeling and evaluation of Influence, Trust, Familiar Strangers, Collective Wisdom, Collective Action, Homophily, and Community Discovery;
- Data Mining and Machine Learning;
- Semantic Web Mining; and
- Trust and Privacy

PUBLICATIONS

Books

- Nitin Agarwal. Social Computing in Blogosphere: Challenges, Methodologies, and Opportunities. LAP Lambert Academic Publishing. ISBN: 9783838328218, Online: <http://www.amazon.com/Social-Computing-Blogosphere-Nitin-Agarwal/dp/3838328213/>
- Nitin Agarwal and Huan Liu. Modeling and Data Mining in Blogosphere. Synthesis Lectures on Data Mining and Knowledge Discovery, Vol. 1. Morgan & Claypool Publishers. Robert Grossman (Editor). ISBN: 9781598299083 (paperback) ISBN: 9781598299090 (ebook). Online: <http://www.morganclaypool.com/doi/abs/10.2200/S00213ED1V01Y200907DMK001>, <http://www.amazon.com/Modeling-Blogosphere-Synthesis-Knowledge-Discovery/dp/1598299085/> **Over 1000 e-book downloads, highest at the publisher's website** (last checked: October 24, 2011).

Book Chapters and Encyclopedia Entries

- Nitin Agarwal, Shamanth Kumar, Huan Liu, Reza Zafarani, and Huiji Gao. Analyzing Behavior of the Influentials across Social Media, Behavior Computing: Modeling, Analysis, Mining, and Decision. Editors: Longbing Cao and Philip S. Yu. Springer, 2011.
- Halil Bisgin, Nitin Agarwal, and Xiaowei Xu. A Study of Homophily on Social Media, Social Network Mining, Analysis and Research Trends: Techniques and Applications. Editors: I-Hsien Ting, Tzung-Pei Hong and Leon S.L. Wang. IGI Global, 2011.
- Nitin Agarwal. Collective Learning - An Integrated Use of Social Media in Learning Environment, Social Media Tools and Platforms in Learning Environments. Editors: Bebo White, Irwin King, and Phillip Tsang. Springer, 2011.

- Nitin Agarwal and Huan Liu. Trust in Blogosphere. Encyclopedia of Database Systems. Part 20, pp. 3187-3191. Editors: Ling Liu and M. Tamer Özsu SpringerLink. 2009. ISBN: 978-0-387-35544-3 (Print) 978-0-387-39940-9 (Online) DOI: 10.1007/978-0-387-39940-9_438.
- Nitin Agarwal, Magdiel Galan, Huan Liu, and Shankar Subramanya. Clustering of Blogs using Collective Wisdom. Computational Social Network Analysis: Trends, Tools, and Research Advances. Chapter 14. Editors: Ajith Abraham, Aboul-Ella Hassanien and Vaclav Snasel. Springer-Verlag London Ltd.
- Nitin Agarwal, Huan Liu, and Jianping Zhang. A Study of Friendship Networks and Blogosphere. Handbook of Research on Text and Web Mining Technologies. Chapter 36, ISBN: 978-1-59904-990-8, Editors: Min Song and Yi-fang Brook Wu. Idea Group Inc.
Reprinted in E-Collaboration: Concepts, Methodologies, Tools, and Applications (Vol. II). Editor: Ned Kock. Information Science Reference (an Imprint of IGI Global). Chapter 5.15, pp. 1078-1100.
Reprinted in Handbook of Research on Social Interaction Technologies and Collaboration Software: Concepts and Trends. Editors: Tatyana Dumova and Richard Fiordo. Idea Group Inc., 2009. Chapter LV, pp. 661-684.
- Nitin Agarwal, Huan Liu, John Salerno, and Philip S. Yu. Searching for ‘Familiar Strangers’ on Blogosphere. Next Generation of Data Mining. Chapter 15, Editors: Hillol Kargupta, Jiawei Han, Philip S. Yu, Rajeev Motwani, and Vipin Kumar. Chapman & Hall/CRC Press.
- K. Selcuk Candan, Jong Wook Kim, Huan Liu, Reshma Suvarna, and Nitin Agarwal. Spatial Transformations for Identifying Mappings in Hierarchical Media Data. Multimedia Data Mining and Knowledge Discovery. Editors: Valery Petrushin and Latifur Khan. Springer, 2006.

Journal Publications

- Nitin Agarwal, Huan Liu, Lei Tang, and Philip S. Yu. Modeling Blogger Influence in a Community. Social Network Analysis and Mining, Springer, 2012. (to appear).
- Halil Bisgin, Nitin Agarwal, and Xiaowei Xu. A Study of Homophily on Social Media. World Wide Web, Springer. DOI: 10.1007/s11280-011-0143-3, 2012 (to appear).
- Nitin Agarwal and Xiaowei Xu. Social Computational Systems. Journal of Computational Science, ISSN 1877-7503, Elsevier, DOI: 10.1016/j.jocs.2011.07.006, 2012 (to appear).
- Seshadri Mohan, Nitin Agarwal, and Lava Al-Doski. Mobile Network-Aware Social Computing Applications: A Framework, Architecture, and Analysis. Journal of Ambient Intelligence and Humanized Computing, Springer, 2012 (to appear).
- Huan Liu, Philip S. Yu, Nitin Agarwal, and Torsten Suel, Guest Editors' Introduction: Social Computing in the Blogosphere. IEEE Internet Computing, pp. 12-14, March/April, 2010. DOI: 10.1109/MIC.2010.39.
- Nitin Agarwal, Magdiel Galan, Huan Liu, and Shankar Subramanya. WisColl: Collective Wisdom based Blog Clustering. Journal of Information Science: Special Issue on Collective Intelligence (INS-CI),180(1): 39-61. 2010. <http://dx.doi.org/10.1016/j.ins.2009.07.010>
- Nitin Agarwal and Huan Liu. Blogosphere: Research Issues, Tools, and Applications. ACM SIGKDD Explorations, 10(1): 18 – 31. 2008.
- Lei Tang, Huan Liu, Jianping Zhang, Nitin Agarwal, and John J. Salerno. Topic Taxonomy Adaptation for Group Profiling. ACM Transactions on Knowledge Discovery from Data, TKDD 1(4), 2008.
- Nitin Agarwal, Huan Liu, and Jianping Zhang. Blocking Objectionable Web Contents by Leveraging Multiple Information Sources. ACM SIGKDD Explorations, 8(1): 17 – 26. 2006.
- Nitin Agarwal, Ehtesham U. Haque, Huan Liu and Lance Parsons. A Subspace Clustering Framework for Research Group Collaboration. International Journal on Information Technology and Web Engineering (IJITWE), 1(1): 35 – 58. 2006.

Conference Publications

- Nitin Agarwal, Merlyna Lim, and Rolf T. Wigand. Finding Her Master's Voice: The Power of Collective Action Among Female Muslim Bloggers. In the 19th European Conference on Information Systems (ECIS2011). June 9-11, 2011, Helsinki, Finland.
- Nitin Agarwal, Merlyna Lim, and Rolf T. Wigand. Collective Action Theory Meets the Blogosphere: A New Methodology. In the third International Conference on Networked Digital Technologies (NDT 2011). July 11-13, 2011, Macau. China.
- Seshadri Mohan and Nitin Agarwal. A Convergent Framework for QoS-Driven Social Media Content Delivery over Mobile Networks. In the second IEEE International Conference on Wireless Communications, Vehicular Technology, Information Theory and Aerospace & Electronic Systems Technology (WiRELESS ViTAE 2011). Feb 28-Mar 3, 2011, Chennai, India.
- Martha Venkataswamy, Srini Ramaswamy, and Nitin Agarwal. CBPM: Context Based Privacy Model. In the 2nd International Symposium on Privacy and Security Applications (PSA-10) held in conjunction with IEEE International Conference on Privacy, Security, Risk, and Trust (PASSAT 2010). August 20-22, 2010, Minneapolis, Minnesota. **Best Paper Award. News Coverage: NSF Science360, US News, UALR News, PhysOrg, Dr Dobbs Journal**
- Nitin Agarwal and Yusuf Yiliyasi. Information Quality Challenges in Social Media. In the International Conference on Information Quality (ICIQ 2010). November 12-14, 2010, Little Rock, Arkansas.
- Halil Bisgin, Nitin Agarwal, and Xiaowei Xu. Investigating Homophily in Online Social Networks. The tenth IEEE/WIC/ACM International Conference on Web Intelligence (WI'10). August 31 - September 3, 2010, Toronto, Canada.
- Halil Bisgin, Nitin Agarwal, and Xiaowei Xu. Does Similarity breed Connection? - An Investigation in BlogCatalog and Last.fm Communities. The fourth ACM Workshop on Social Network Mining and Analysis (SNAKDD) held in conjunction with the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2010). July 25, 2010, Washington DC.
- Xiaowei Xu, Mutlu Mete, Halil Bisgin, Kemal Aydin, Nitin Agarwal, and Thomas A.J. Schweiger. Finding Community Leaders in Social Networks. The fourth ACM Workshop on Social Network Mining and Analysis (SNAKDD) held in conjunction with the 16th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2010). July 25, 2010, Washington DC.
- Shamanth Kumar, Nitin Agarwal, and Huan Liu. Towards Building a Social Computing Tool for Social Scientists. The 3rd International Conference on Human-centric Computing (HumanCom-10). August 11 - 13, 2010. Cebu, Philippines
- Zheng Zhao, Jiangxin Wang, Shashvata Sharma, Nitin Agarwal, Huan Liu, and Yung Chang. An Integrative Approach to Identifying Biologically Relevant Genes. SIAM International Conference on Data Mining (SDM 2010). April 29 - May 1, 2010. Columbus, Ohio.
- Brian P. Blake, Nitin Agarwal, Rolf T. Wigand, and Jerry D. Wood. Twitter Quo Vadis: Is Twitter Bitter or are Tweets Sweet? 7th International Conference on Information Technology: New Generations (ITNG 2010), April 12-14, 2010. Las Vegas, Nevada.
- Nitin Agarwal, Shamanth Kumar, Merlyna Lim, and Huan Liu. Mapping Socio-Cultural Dynamics in Indonesian Blogosphere. Third AAAI International Conference on Computational Cultural Dynamics (ICCCD), December 7-9, 2009, Washington D.C.
- Nitin Agarwal, Huan Liu, Shankara Subramanya, John Salerno, and Philip S. Yu. Connecting Sparsely Distributed Similar Bloggers. Ninth IEEE International Conference on Data Mining (ICDM'09). December 6-9, 2009. Miami, Florida.
- Nitin Agarwal, Shamanth Kumar, Huan Liu, and Reza Zafarani. Investigating Behavioral Patterns Across Social Media: from Blogging to Microblogging. Human, Social, Cultural, and Behavioral Modeling Conference (HSCB'09), August 4-7, 2009. Chantilly, Virginia.

- Nitin Agarwal. Social Computing in Blogosphere: Challenges and Opportunities. SIAM Data Mining Doctoral Student Forum. April 30-May 2, 2009. Reno-Sparks-Tahoe, Nevada.
- Nitin Agarwal, Huan Liu, Sudheendra Murthy, Arunabha Sen, and Xufei Wang. A Social Identity Approach to Identify Familiar Strangers in a Social Network. 3rd AAAI International Conference on Weblogs and Social Media (ICWSM'09), May 17-20, 2009. San Jose, California. (Video: http://videlectures.net/icwsm09_agarwal_siaifs/).
- Nitin Agarwal, Shamanth Kumar, Huan Liu, and Mark Woodward. BlogTrackers: A Tool for Sociologists to Track and Analyze Blogosphere (Demo Paper). 3rd AAAI International Conference on Weblogs and Social Media (ICWSM'09), May 17-20, 2009. San Jose, California.
- Nitin Agarwal, Huan Liu, John J. Salerno, and Sanjay Sundarajan. Understanding Group Interaction in Blogosphere: A Case Study. 2nd AAAI International Conference on Computational Cultural Dynamics (ICCCD'08), September 15-16, 2008. Washington D.C.
- Nitin Agarwal, Magdiel Galan, Huan Liu, and Shankara Subramanya. Clustering Blogs with Collective Wisdom. 8th IEEE International Conference on Web Engineering (ICWE'08). July 14-18, 2008. New York.
- Nitin Agarwal. A Study of Communities and Influence in Blogosphere. 2nd SIGMOD PhD Innovative Database and Research Doctorate Consortium (IDAR'08), June 13 2008. Vancouver, Canada.
- Nitin Agarwal, Huan Liu, Lei Tang, and Philip S. Yu. Identifying Influential Bloggers in a Community. 1st ACM International Conference on Web Search and Data Mining (WSDM'08), February 11-12, 2008. Stanford, California. (Video: http://videlectures.net/wsdm08_agarwal_iib/).
- Nitin Agarwal, Huan Liu, John Salerno, and Philip S. Yu. Searching for 'Familiar Strangers' on Blogosphere: Problems and Challenges. NSF Symposium on Next-Generation Data Mining and Cyber-enabled Discovery and Innovation (NGDM'07). October 10-12, 2007. Baltimore, Maryland.
- Nitin Agarwal, Magdiel Galan, and Yi Chen. Approximate Structural Matching over Ordered XML Documents. 11th IEEE International Database Engineering and Applications Symposium (IDEAS'07). September 6-8, 2007. Banff, Canada.
- Nitin Agarwal, Ehtesham Haque, Huan Liu, and Lance Parsons. Research Paper Recommender System: A Subspace Clustering Approach. 6th IEEE International Conference on Web-Age Information Management (WAIM'05). October 11-13, 2005. Hangzhou, China.

Ph.D. Dissertation

Social Computing in Blogosphere, Computer Science Department, Arizona State University. Thesis advisor: Prof. Huan Liu. August 2009.

Editor

- Editor-in-Chief for Social computing and Behavioral Modeling (SocialComp) 2011. <http://www.social-comp.org/>
- Associate editor for the International Journal of Sensor Networks and Data Communications (IJSNDC).
- Guest Editor for Lecture Notes in Social Networks series on Online Collective Action: Dynamics of the Crowd in Social Media. Co-editors: Rolf T. Wigand and Merlyna Lim. *To appear in 2012.*
- Guest editor for IEEE Communications Magazine. Editing a special issue on Social Networking and Wireless Networks Convergence. Co-editors: Seshadri Mohan and Ashutosh Dutta. *To appear in 2012.*
- Guest Editor for Elsevier Journal of Computational Science special issue on Social Computational Systems. Co-editor: Xiaowei Xu. August 2011.
- Guest Editor for IEEE Internet Computing special issue on Social Computing in Blogosphere. Co-editors: Huan Liu, Philip S. Yu, and Suel Thorsten. Mar-Apr 2010.

SPONSORED PROJECTS

- Cyber-collective Movements: Novel Socio-computational Approaches in Studying the Blogosphere. The research project is funded in part by the U.S. National Science Foundation's Social-Computational Systems (SoCS) Program and Human Centered Computing Program (Award number: IIS-1110868 and IIS-1110649). Project Period: 09/01/2011 - 08/31/2014. Collaborators: Rolf Wigand and Merlyna Lim. Project webpage - <http://onlinecollectiveaction.lab.asu.edu/>. Research highlighted by: **UALR News, Newswire**.
- BlogTrackers: Analyzing Social Media for Cultural Modeling. The research project is funded by the U.S. Office of Naval Research (ONR) (Award number: N000141010091). Project period: 05/01/2010 - 12/30/2013. Collaborators: Huan Liu and Merlyna Lim. Project webpage - <http://www.public.asu.edu/~huanliu/projects/BlogTrackers/>. BlogTrackers Tool - <http://blogtrackers.fulton.asu.edu/>.

TEACHING EXPERIENCE

- Social Computing and Web Analytics (CSE 494/598) Fall 2008, Arizona State University. Created in 2008. *Co-taught with Prof. Huan Liu.*
- Ethics in Profession (IFSC 2200) Summer 2011. University of Arkansas at Little Rock.
- Systems Analysis and Design (IFSC 3360) Spring 2010, Fall 2010, Fall 2011. University of Arkansas at Little Rock.
- Computer Ethics (IFSC 4210/CPSC 4210) Fall 2009. University of Arkansas at Little Rock.
- Social Computing (IFSC 4360/5360) Fall 2009, Fall 2010, Spring 2012. University of Arkansas at Little Rock. Created in 2009.
- Social Media Mining and Analytics (IFSC 4399/5399) Spring 2011. University of Arkansas at Little Rock.
- Information Systems Analysis (IFSC 7310) Spring 2011, Spring 2012. University of Arkansas at Little Rock.
- Database System/Information Architecture (IFSC 7320) Fall 2011. University of Arkansas at Little Rock.

TALKS

Invited

- Understanding Social Media: Tools, Applications, and Processes. Presented at International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction (SBP), College Park, Maryland. March 28, 2011. (<http://www.umiacs.umd.edu/conferences/sbp2011/tutorials.html>)
- Presented a tutorial on Community Detection and Behavior Study for Social Computing at IEEE International Conference on Social Computing (SocialCom09) with Huan Liu and Lei Tang, August 29-31, 2009. Vancouver, Canada.
- Presented a tutorial on Blogosphere: Research Issues, Applications, and Tools at ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2008) with Huan Liu, August 24-27, 2008. Las Vegas, Nevada. Video available at: http://videlectures.net/kdd08_liu_briat/
- Information Quality in Social Media: Challenges and Opportunities. International Association for Information and Data Quality (IAIDQ) - Student Chapter, Little Rock, Arkansas. September 17, 2010.
- Behavior Patterns in Social Media and Applications. Yahoo research, India. December 21, 2009.
- Social Computing: Studying Behavior on Social Media. CSAM-EIT Colloquium Series, University of Arkansas at Little Rock. August 28, 2009.
- Preparing for Academic Careers. Ph.D. Seminar, Arizona State University. May 15, 2009.

- Social Computing in Blogosphere and Research Challenges. University of Arkansas at Little Rock. March 13, 2009.
- Social Computing in Blogosphere and Research Challenges. Wright State University. February 12, 2009.
- Social Computing and its Challenges in Blogosphere. Ph.D. Seminar, Arizona State University. January 30, 2009.

Videos

- A Social Identity Approach to Identify Familiar Strangers in a Social Network. Research track paper presentation at ICWSM 2009. Video available at: http://videlectures.net/icwsm09_agarwal_siaifs/ [Views: 216].
- A tutorial on Blogosphere: Research Issues, Applications, and Tools. Presented at ACM International Conference on Knowledge Discovery and Data Mining (KDD) 2008. Video available at: http://videlectures.net/kdd08_liu_briat/ [Views: 1266].
- Identifying Influential Bloggers in a Community. Research track paper presentation at ACM International Conference on Web Search and Data Mining (WSDM) 2008. Video available at: http://videlectures.net/wsdm08_agarwal_iib/ [Views: 1295].

PROFESSIONAL ACTIVITIES

- Served on the review panel for U.S. National Science Foundation (NSF) and Research Grants Council (RGC), Hong Kong.
- Serving as Editor-in-Chief for Social computing and Behavioral Modeling (SocialComp) 2011. <http://www.social-comp.org/>
- Serving as program committee member for CIKM 2009, MSM 2009, SBP 2009-2010, MEDES 2010, ASONAM 2010-2011, ICIQ 2010, CPSCOM 2010, SMUC 2010, MEDES 2011, SocialObjects 2011, ASONAM 2011.
- Served as proceedings chair for Social Computing, Behavioral Modeling, and Prediction (SBP) 2008 and 2009, SIAM Data Mining (SDM) 2011 and 2012.
- Served as publicity chair for Advances in Social Computing (SBP) 2010 and SIAM Data Mining (SDM) 2012.
- Reviewed Journal and Conference papers for AAAI, VLDB, PAKDD, EC-WEB, WAIM, International Journal of Information Science, CIKM, KDD, IJCSA, APWeb, SDM, JCISE, WWW, ICDM, ICDE, ICWE, ICWSM.

AWARDS & RECOGNITION

- Recognized among **Top 20 Influentials in 20ies** by Arkansas Business for being creative and talented individuals who have found early success in their profession and show future potential to step up as a leader in Arkansas business or politics.
- **Best paper award** for “CBPM: Context Based Privacy Model” in the 2nd International Symposium on Privacy and Security Applications (PSA-10) held in conjunction with IEEE International Conference on Privacy, Security, Risk, and Trust (PASSAT 2010). August 20-22, 2010, Minneapolis, Minnesota.
Coverage in:
 - NSF Science360 (<http://news.science360.gov/archives/20100826>),
 - US News (<http://www.usnews.com/science/articles/2010/08/26/ualr-research-creates-internet-privacy-tool.html>),
 - UALR News (<http://ualr.edu/www/2010/08/24/ualr-researchers-develop-internet-privacy-tool/>),
 - Dr Dobbs Journal (<http://www.drdoobbs.com/security/227100040;jsessionid=BJ0CWEFDYTLXRQE1GHPSKH4ATMY32JVN>) and
 - PhysOrg (<http://www.physorg.com/news201884299.html>).

- Recognized as an **Outstanding Ph.D.** student finalist by the School of Computing and Informatics at Arizona State University, Spring 2009.
- Received SIAM Data Mining Doctoral Forum Travel Award in 2009.
- Research on Blog Mining has been acknowledged by the School of Computing and Informatics, Arizona State University as ground breaking (http://sci.asu.edu/news/publications/SCInewsletter_Fall08.pdf pp. 10-11), Fall 2008.
- Received multiple conference travel grants from Graduate Professional Students Association, Arizona State University and Division of Graduate Studies, Arizona State University.

COLLABORATORS

Sun-ki Chai (Department of Sociology, University of Hawai`i), Yi Chen (ASU), Merlyna Lim (School of Justice and Social Inquiry, ASU), Huan Liu (ASU), Sudheendra Murthy (ResponseLogix Inc.), Srinu Ramaswamy (ABB), John Salerno (Air Force Research Lab), Arunabha Sen (ASU), Thomas A.J. Schweiger (Axiom Corp.), Shankar B. Subramanya (Amazon.com Inc.), Lei Tang (Yahoo Research), Rolf T. Wigand (UALR), Mark Woodward (Center for Religious Studies, ASU), Xiaowei Xu (UALR), Philip S. Yu (University of Illinois at Chicago), Jianping Zhang (MITRE Corp.).