Jasleen Kaur

Email: jasleen.iu@gmail.com, jakaur@umail.iu.edu
Address: 919 E. 10th st, Bloomington IN-47404
Phone: (812)-606-1735
Webpage: http://jasleen-kaur.github.io/

EDUCATION

Ph.D. in Informatics, Complex Networks & Systems
Indiana University Bloomington, IN, US. (2009 - Present)
GPA: 3.86/4.0

M.S. in Bioinformatics
Indiana University Bloomington, IN, US. (2005 - 2007)
GPA: 3.94/4.0

Post graduate diploma in Bioinformatics
Bioinformatics Institute of India, Noida, India (2004 - 2005)
Division: First

Bachelor of Information Technology
University of Delhi, India (2000 - 2004)
Division: First

WORK EXPERIENCE

Research Collaborator, Santa Fe Institute (Summer 2009, 2010, 2011)
Developed methods for mapping and analyzing the spatio-temporal structure of fields of science, including measures of spatial aggregation, networks of collaboration and citation embedded in space and time. Textual analysis of scholarly documents.

Solutions Engineer, Cataphora Inc. (June 2008 - Dec 2008)
Research and implement various analytics for the analysis of client data in terms of social networks. Automation of various daily operations tasks.

Staff Research Assistant, Los ALamos National Lab (Summer 2006, 2007 - 2008)
Quantify the structure and temporal dynamics of scientific fields in terms of research and technology development. This involved the identification of online resources for patents(technology) and publications(research), the automated extraction of information and storage of data in database, the construction of graphs using Python. A comparative analysis of a field's scientific and technological development in terms of patterns of patenting versus those of scientific publication.

Software Engineer, Adeptia Pvt. Ltd, Noida, India (Mar 2004 - July 2005)
Supported the software development team in coding and testing for the module Data Translation and designing of Process Designer (GUI to create Transactions).

RESEARCH EXPERIENCE

Universality of Impact Metrics Created and implemented a method to

quantify the disciplinary bias of any scholarly impact metric. Used the method to evaluate a number of established scholarly impact metrics. Introduced a simple universal metric h_s that allows to compare the impact of scholars across scientific disciplines.

Evolution of Scientific Disciplines Analytical analysis of 9 scientific disciplines to study emergence and evolution of science. Created an agent-based model in which the evolution of disciplines is guided mainly by social interactions among agents representing scientists. Emergence of disciplines is validated on the basis of empirical data.

Scholarometer `scholarometer.indiana.edu` is a crowdsourcing tool for citation analysis and computing authors impact measures. Created interactive visualizations of author and discipline network. Performed several analyses to compare universality of the impact measures, by using the crowdsourced annotations collected by the tool. Developed a classifier for disambiguating author names.

Implementation of a workflow for Chemical Informatics Portal using the Webservices Migrated an existing Chemical Informatics workflow which identifies molecules suitable for docking in a specific target protein, from Taverna, to another in-house (IU) developed workflow service engine called Xbaya. Integrated the workflow with a portal based on OGCE technology.

BioCreAtIvE - Critical Assessment for Information Extraction in Biology Participated in Biocreative II for subtasks I, II and III which involved identification of protein-protein interactions, interactions pairs and relevant sentences from articles. Classification of abstracts as protein relevant or not, implemented in C++.

TEACHING EXPERIENCE

Associate Instructor I-308 Information Representation
(Fall 2009, Spring 2010, Fall 2012, Spring 2013)
School of Informatics and Computing, Indiana University Bloomington

Associate Instructor I-400 Networks (Fall 2013)
School of Informatics and Computing, Indiana University Bloomington

RESEARCH INTERESTS

Complex networks and systems; Data mining; Web mining; Machine learning; Social media and social networks analysis; Social web application; Universality; Bibliometrics; Evolution and emergence of scientific disciplines; Modeling science; Citation-based impact analysis; Universality of impact metrics.

MAIN COURSES

Web mining; Machine learning; Introduction to complex systems; seminars in complex systems; Bayesian data analysis; artificial intelligence.

SKILLS

Perl, Python, R, Matlab

PUBLICATION

1. Jasleen Kaur, Filippo Menczer, Alessandro Flammini, Emilio Ferrara and Filippo Radicchi (2014) Impact, productivity, and scientific excellence.

Under Review.

2. Jasleen Kaur, Mohsen JafariAsbagh, Filippo Radicchi (2014) Scholarometer: a system for crowdsourcing scholarly impact metrics. In: Proceedings of the 2014 ACM conference on Web science, 285-286.
3. Jasleen Kaur, Mohsen JafariAsbagh, Filippo Radicchi (2014) Crowdsourced disciplines and universal impact. ACM Websci14 Altmetrics.
4. Jasleen Kaur, Filippo Radicchi, and Filippo Menczer (2014) On the use of sampling statistics to advance bibliometrics. Journal of Informetrics, Volume 8, Issue 2, Pages 419-420
5. Jasleen Kaur, Filippo Radicchi, and Filippo Menczer (2013) Universality of scholarly impact metrics. Journal of Informetrics, Volume 7, Issue 4, Pages 924-932, ISSN 1751-1577, doi:10.1016/j.joi.2013.09.002
6. Luis MA Bettencourt, Jessika E Trancik, and Jasleen Kaur (2013) Determinants of the Pace of Global Innovation in Energy Technologies. PLoS ONE 8(10):e67864.
7. Xiaoling Sun, Jasleen Kaur, Stasa Milojevic, Alessandro Flammini and Filippo Menczer (2013) Social Dynamics of Science. Nature Scientific Reports 3(1069). doi:10.1038/srep01069
8. Stasa Milojevic, Selma Sabanovic, and Jasleen Kaur (2013) Miomir Vukobratovic [History]. IEEE Robot. Automat. Mag. 20(2):112-122.
9. Jasleen Kaur and Johan Bollen (2012). Structural Patterns in Online Usage. ACM Web Science Conference 2012 Altmetrics Workshop Evanston, IL.
10. Xiaoling Sun, Jasleen Kaur, Lino Possamai and Filippo Menczer (2012) Ambiguous author query detection using crowdsourced digital library annotations. Information Processing & Management. doi:10.1016/j.ipm.2012.09.001
11. Jasleen Kaur, Diep Thi Hoang, Xiaoling Sun, Lino Possamai, Mohsen JafariAsbagh, Snehal Patil and Filippo Menczer (2012) Scholarometer: A Social Framework for Analyzing Impact across Disciplines. PLoS ONE 7(9): e43235.
12. Selma Sabanovic, Stasa Milojevic, Jasleen Kaur (2012) John McCarthy [History]. IEEE Robot. Automat. Mag. 19(4): 99-106.
13. Leslie Anne Ballard, Selma Sabanovic, Jasleen Kaur, Stasa Milojevic (2012) George Charles Devol, Jr. [History]. IEEE Robot. Automat. Mag. 19(3): 114-119.
14. Luis MA Bettencourt, Jasleen Kaur (2011) The Evolution and Structure of Sustainability Science. Proceedings of National Academy of Sciences, 108(47).
15. Xiaoling Sun, Jasleen Kaur, Lino Possamai and Filippo Menczer (2011). Detecting Ambiguous Author Names in Crowdsourced Scholarly Data. In: Proceedings of 3rd IEEE Conference on Social Computing, Oct. 9-11th, 2011, MIT, Boston, USA.

16. Thi Hoang, Diep and Kaur, Jasleen and Menczer, Filippo (2010) Crowdsourcing Scholarly Data. In: Proceedings of the WebSci10: Extending the Frontiers of Society On-Line, April 26-27th, 2010, Raleigh, NC: US.
17. Kolchinsky, A. Abi-Haidar, J. Kaur, A.A. Hamed and L.M. Rocha (2010) Classification of proteinprotein interaction full-text documents using text and citation network features. IEEE/ACM Transactions On Computational Biology And Bioinformatics, 7(3):400-411.
18. A. Kolchinsky, A. Abi-Haidar, J. Kaur, A.A. Hamed and L.M. Rocha (2009) Classification of protein-protein interaction documents using text and citation network features. In: Proceedings of the BioCreative II.5 Workshop 2009: Special Session on Digital Annotations, Madrid, Spain, October 7-9, 2009. pp 34.
19. Luis M.A. Bettencourt, David I. Kaiser, Jasleen Kaur (2008) Scientific discovery and topological transitions in collaboration networks. Journal of Informetrics 3 (April 2009): 210-221.
20. Luis M.A. Bettencourt, David I. Kaiser, Jasleen Kaur, Carlos Castillo-Chavez and David E. Wojick (2007) Population Modeling of the emergence and development of scientific fields. Scientometrics, Vol 75,3.
21. Alaa Abi-Haidar, Jasleen Kaur, Ana Maguitman, Predrag Radivojac, Andreas Retchsteiner, Karin Verspoor, Zhiping Wang, Luis M. Rocha (2008) Uncovering Protein Interactions in abstract and text using novel linear model and word proximity networks. Genome Biology,9(Suppl 2):S11.
22. L.M. Rocha and J. Kaur (2007) Genotype Editing and the Evolution of Regulation and Memory. In: Proceedings of the 9th European Conference on Artificial Life. Lecture Notes in Artificial Intelligence (LNAI), 4648: 63-73 (Springer-Verlag).
23. Alaa Abi-Haidar, Jasleen Kaur, Ana Maguitman, Predrag Radivojac, Andreas Retchsteiner, Karin Verspoor, Zhiping Wang, Luis M. Rocha (2007) Uncovering Protein-Protein Interactions in the Bibliome. In: Proceedings of the Second BioCreative Challenge Evaluation Workshop (ISBN 84-933255-6-2).
24. C. Huang, J. Kaur, A. Maguitman, Rocha L.M. (2007) Agent-based Model of Genotype Editing. EvolutionaryComputation, 15(3).
25. Rocha L.M., A. Maguitman, C. Huang, J. Kaur and S.Narayanan (2006) An Evolutionary Model of Genotype Editing. In: Proceedings of the Artificial Life 10: Tenth International Conference on the Simulation and Synthesis of Living Systems, MIT Press, pp. 105-111.

MEDIA COVERAGE

Nature News: Who is the best scientist of them all?

A Better Way to Rank Scientists - Real Clear Science

Study: Research investments, growing markets prompt rise in energy patents
Covered in USA Today, MIT News, The Hill, Climate Progress, Phys.org, Science Daily, Eurekalert and many more..

Mapping Impact: Nature special on Science and the City

After 25 years, sustainability is a growing science that's here to stay, research from Los Alamos, IU shows
Covered in Herald Times, IU News, NSF, LANL News and many more..

TALKS

ACM WebSci14 workshop -The web of scientific knowledge: current trends and future perspectives in the big data era

ACM WebSci14 Altmetrics workshop

ECCS13 Quantifying Success workshop

ECCS13 COVENANT workshop

ACM Websci12 Altmerics workshop

ACADEMIA SERVICE

Extended Reviewer for ACM WebSci14

Reviewer of journal Plos One

Program Committee Member of SocialCom2012