

Suman Kalyan Maity

CONTACT INFORMATION	MIT Brain and Cognitive Sciences Massachusetts Institute of Technology 43 Vassar Street RM 46-3027D, Cambridge, MA 02139	✉ sumankm@mit.edu ✉ suman.maity@kellogg.northwestern.edu
ACADEMIC POSITIONS	<i>Postdoctoral Research Associate</i> (2021 - present) MIT Brain and Cognitive Sciences, and MIT CREOS Massachusetts Institute of Technology <i>Postdoctoral Fellow</i> (2018 - 2021) Center for Science of Science & Innovation, Kellogg School of Management and The Northwestern Institute on Complex Systems (NICO) Northwestern University	
RESEARCH INTERESTS	Human centered Data Science, Computational Social Science, Science of Science, Machine Learning and Computational Linguistics	
EDUCATION	Indian Institute of Technology Kharagpur, WB, India. <ul style="list-style-type: none">• <i>PhD in Computer Science and Engineering</i> (2013-2018) Indian Institute of Technology Kharagpur, WB, India. <ul style="list-style-type: none">• <i>MS in Computer Science and Engineering</i> (2011-2013) National Institute of Technology Durgapur, WB, India. <ul style="list-style-type: none">• <i>B.Tech in Computer Science and Engineering</i> (2007-2011)	
WORKING PAPERS	S. K. Maity , Y. Wang, N. Dehmamy, V. Medvec, B. Uzzi, D. Wang, “Winners, Losers and Future Achievements” (In preparation for submission to Nature) M. Park, S. K. Maity , S. Wuchty, D. Wang, “Interdisciplinary Science and its Impact” (In preparation for submission to Nature) S. K. Maity , Y. Yin, Z. Gu, D. Wang, “Grants and Research Outputs”	
PUBLICATIONS	P. Dey, S. K. Maity , S. Medya and A. Silva, “Network Robustness via Global k-cores”, in proceedings of 20 th International Conference on Autonomous Agents and Multiagent Systems (AAMAS ’21), London, UK, May 3-7, 2021 B. Mathew, S. K. Maity , P. Goyal and A. Mukherjee, “Competing topic naming conventions in quora: predicting appropriate topic merges and winning topics from millions of topic pairs”, in proceedings of of the 7 th ACM IKDD CoDS and 25th COMAD (CoDS-COMAD ’20)	

- B. Mathew, R. Dutt, **S. K. Maity**, P. Goyal and A. Mukherjee, “Deep Dive into Anonymity: Large Scale Analysis of Quora Questions”, in proceedings of 11th International Conference on Social Informatics (**SocInfo ’19**), Doha, Qatar, November 18 - 21, 2019
- S. K. Maity**, A. Panigrahi, S. Ghosh, A. Banerjee, P. Goyal, A. Mukherjee, “Deep-TagRec: A Content-cum-User based Tag Recommendation Framework for Stack Overflow”, in proceedings of the 41st European Conference on Information Retrieval (**ECIR ’19**), Cologne, Germany, April 14 - 18, 2019
- S. K. Maity**, A. Chaudhari, A. Mukherjee, ““Woman-Metal-White vs Man-Dress-Shorts”: Combining Social, Temporal and Image Signals to Understand Popularity of Pinterest Fashion Boards”, in proceedings of 13th International Conference on Web and Social Media (**ICWSM ’19**), Munich, Germany, June 11 - 14, 2019
- B. Mathew, H. Tharad, S. Rajgaria, P. Singhanian, **S.K. Maity**, P. Goyal, A. Mukherjee, “Thou shalt not hate: Countering Online Hate Speech”, in proceedings of 13th International Conference on Web and Social Media (**ICWSM ’19**), Munich, Germany, June 11 - 14, 2019
- S. K. Maity**, A. Chakraborty, P. Goyal, A. Mukherjee, “Opinion Conflicts: An Effective Route to Detect Incivility in Twitter”, in proceedings of the 21st ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW ’18**), Jersey City, USA, November 3 - 7, 2018 [**Media Coverage: TechXplore**]
- S. K. Maity**, A. Kharb, A. Mukherjee, “Analyzing the Linguistic Structure of Question Texts to Characterize Answerability in Quora”, in IEEE Transactions on Computational Social Systems (**TCSS**), 99 (2018): pp 1-13.
- S. K. Maity**, A. Panigrahi, A. Mukherjee, “Analyzing Social Book Reading Behavior on Goodreads and how it predicts Amazon Best Sellers”, in Influence and Behavior Analysis in Social Networks and Social Media, Springer, 2018 [**Media Coverage: TechXplore, geek.com,phys.org,enuze.com,follownews.com,bestpractice.ai**]
- S. K. Maity**, A. Mullick, S. Ghosh, A. Kumar, S. Dhamnani, S. Bahety and A. Mukherjee, “Understanding Psycholinguistic Behavior of predominant drunk texters in Social Media”, in proceedings of the IEEE Symposium on Computers and Communications (ISCC 2018) Workshop on ICT Solutions for E-Health - ICTS4eHealth 2018, Natal, Brazil, 25-28 June 2018
- S. K. Maity**, Santosh K C, Arjun Mukherjee, “Spam2Vec: Learning Biased Embeddings for Spam Detection in Twitter”, in proceedings of the Web Conference (**WWW ’18**), Lyon, France, April 23 - 27, 2018
- S. K. Maity**, R. Gajula, A. Mukherjee, “Why Did They #Unfollow Me? Early Detection of Follower Loss on Twitter”, in proceedings of the 20th International Conference on Supporting Group Work (**GROUP ’18**), Florida, USA, January 7 - 10, 2018
- S. K. Maity**, A. Kumar, A. Mullick, V. Choudhary, A. Mukherjee, “Understanding Book Popularity on Goodreads”, in proceedings of the 20th International Conference on Supporting Group Work (**GROUP ’18**), Florida, USA, January 7 - 10, 2018
- A. Mullick, S. Ghosh, S. Maheswari, S. Sahoo, **S. K. Maity**, Soumya C, P. Goyal, “Identifying Opinion and Fact Subcategories from the Social Web”, in proceedings of the 20th International Conference on Supporting Group Work (**GROUP ’18**), Florida, USA, January 7 - 10, 2018

- S. K. Maity**, A. Panigrahi, A. Mukherjee, “Book Reading Behavior on Goodreads Can Predict the Amazon Best Sellers”, in proceedings of 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (**ASONAM ’17**), Sydney, Australia, July 31 - Aug 3, 2017 [**Media Coverage: TechXplore, geek.com,phys.org,enuze.com,follownews.com,bestpractice.ai**]
- B. Mathew, **S. K. Maity**, P. Sarkar, A. Mukherjee and P. Goyal, “Adapting predominant and novel sense discovery algorithms for identifying corpus-specific sense differences”, in proceedings of TextGraphs 2017 in conjunction with 55th annual meeting of the Association for Computational Linguistics (**ACL ’17**), Vancouver, Canada, July 30 - Aug 4, 2017
- Santosh K C, **S. K. Maity**, A. Mukherjee, “ENWalk: Learning Network Features for Spam Detection in Twitter”, in proceedings of **SBP 2017**, Washington, USA, July 5-8, 2017
- S. K. Maity**, A. Kharb, A. Mukherjee, “Language Use Matters: Analysis of the Linguistic Structure of Question Texts can Characterize Answerability in Quora”, in proceedings of 11th International Conference on Web and Social Media (**ICWSM ’17**), Montreal, Canada, May 15 - 18, 2017
- S. K. Maity**, A. Chakraborty, P. Goyal, A. Mukherjee, “Detection of Sockpuppets in Social Media”, in proceedings of the 20th ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW ’17**) Companion, Portland, USA, Feb 25 - Mar 1, 2017.
- S. K. Maity** “Understanding Popularity of Social Media Entities: from hashtags to question topics”, in proceedings of the 20th ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW ’17**), Portland, USA, Feb 25 - Mar 1, 2017 (Doctoral Consortium paper).
- S. K. Maity**, C. B. Jha, A. Kumar, A. Sengupta, M. Modi and A. Mukherjee, “A Large-scale Analysis of the Marketplace Characteristics in Fiverr”, in proceedings of 50th Hawaii International Conference on System Sciences (**HICSS-50**), Big Island, Hawaii, USA, Jan 4 - 7, 2017.
- S. K. Maity**, C. Sarda, A. Chaudhary, A. Patil, S. Kumar, A. Mondal, A. Mukherjee, “WASSUP? LOL : Characterizing Out-of-Vocabulary Words in Twitter”, in proceedings of 19th ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW ’16**) Companion, San Francisco, USA, Feb 27 - Mar 2, 2016.
- S. K. Maity**, R. Saraf, A. Mukherjee, “#Bieber + #Blast = #BieberBlast: Early prediction of popular hashtag compounds”, in proceedings of 19th ACM Conference on Computer-Supported Cooperative Work and Social Computing (**CSCW ’16**), San Francisco, USA, Feb 27 - Mar 2, 2016 (**received Best Paper Honorable Mention Award**). This paper also appears in MIT Technology Review news.
- S. K. Maity**, B. Ghuku, A. Upmanyu and A. Mukherjee, “Out of vocabulary words decrease, running texts prevail and hashtags coalesce: Twitter as an evolving sociolinguistic system”, in proceedings of 49th Hawaii International Conference on System Sciences (**HICSS-49**), Kauai, Hawaii, USA, Jan 5 - 8, 2016. This paper appears in MIT Technology Review news.
- S. K. Maity**, J. S. S. Sahni, A. Mukherjee “Analysis and Prediction of Question Topic Popularity in Community QA Sites: A Case Study of Quora”, in proceedings of 9th International Conference on Web and Social Media (**ICWSM ’15**), Oxford, UK May

26 - 29, 2015

- S. K. Maity**, A. Gupta, P. Goyal and A. Mukherjee “A Stratified Learning Approach for Predicting the Popularity of Twitter Idioms”, in proceedings of 9th International Conference on Web and Social Media (**ICWSM ’15**), Oxford, UK May 26 - 29, 2015
- S. K. Maity**, and A. Mukherjee, “Emergence of dominant opinions in presence of rigid individuals in social network”, book chapter in “Towards a Theoretical Framework for Analyzing Complex Linguistic Networks”, pp 279-295, 2015
- S. Mitra, R. Mitra, **S. K. Maity**, M. Riedl, C. Biemann, P. Goyal and A. Mukherjee, “An automatic approach to identify word sense changes in text media across timescales”, Journal of Natural Language Engineering (**JNLE**), 1(1): 1-30, 2014
- T. Chakraborty, **S. K. Maity**, R. Saha Roy and A. Mukherjee, “Emergence”, (a book chapter in the book “**Keywords of Systemic Vision**”, ISBN 978-3-659-52781-4, published by Lambert Editions)
- S. K. Maity**, T. V. Manoj, and A. Mukherjee, “Opinion dynamics in correlated time-varying social networks” in proceedings of the 2014 ASE International Conference on Social Computing (**SocialCom ’14**), Stanford, CA, USA, May 27 - 31, 2014
- S. K. Maity**, A. Porwal and A. Mukherjee, “Understanding how learning affects agreement process in social networks”, in Proceedings of the 2013 ASE/IEEE International Conference on Social Computing (**SocialCom ’13**), Washington DC, USA, September 8 - 14, 2013
- S. K. Maity**, A. Mukherjee, F. Tria and V. Loreto, “Emergence of fast agreement in an overhearing population: The case of the naming game”, in **Europhysics Letters (EPL)**, IOPscience Publishers, Volume 101, Number 6 (2013)
- S. K. Maity**, T .V. Manoj and A. Mukherjee, “Opinion formation in time-varying social networks: The case of Naming Game”, **Physical Review E (PRE)**, 86, 036110 (2012)
- S. K. Maity**, and A. Mukherjee, “Understanding how dominance affects the emergence of agreement in a social network: The case of Naming Game” in proceedings of 2012 IEEE/ASE International Conference on Social Computing (**SocialCom ’12**), Amsterdam, The Netherlands

AWARDS AND
SCHOLASTIC
ACHIEVEMENTS

- Selected to participate in 5th **Hiedelberg Laureate Forum 2017 (HLF 2017)**
- Awarded **IBM PhD Fellowship** (August, 2016)
- **Best paper Honorable Mention Award at CSCW ’17** for our paper “#Bieber + #Blast = #BieberBlast: Early prediction of popular hashtag compounds”
- Awarded **Microsoft Research India PhD Fellowship** (June, 2014)
- Selected for Microsoft TechVista 2015 for PhD poster presentation
- Ranked 2nd in B.Tech (Computer Science And Engineering), NIT Durgapur
- School Topper in Secondary Examination (10th Grade), 2005 and ranked 32 in the state (West Bengal, India)

PROFESSIONAL
ACTIVITIES

Reviewer of Physics Letters A (PLA), Neurocomputing, HICSS-49, HICSS-51, KNOSYS Physica A, Transactions On Computational Social Systems (TCSS), PC/Reviewer of ICWSM 2019, ICWSM 2020, ICWSM 2021, ICWSM 2022, AAAI 2021, AAAI 2022, CSCW 2019, PC/Reviewer of WebSci 2021, COMSNETS 2019, CODS-COMAD 2019, 2020, TextGraphs 2019, ICIS 2021

RESEARCH VISITS

University of Houston, Texas, USA, May '17 - July '17

Topic : Rumor Detection in social networks

University of Houston, Texas, USA, June '16 - September '16

Topic : Spam Detection in social networks

Wroclaw University of Technology, Wroclaw, Poland, August '15 - September '15

Topic : Microscopic models of language variation and change

Wroclaw University of Technology, Wroclaw, Poland, July '14

Topic : Emergence and evolution of language variation in stable society

ISI Foundation, Turin, Italy, May '14 - June '14

Topic : Importance of context on the emergence of fragmentation in agreement dynamics

Bielefeld University, Bielefeld, Germany, July '13

Topic : Microscopic models for the emergence and evolution of language variation

ISI Foundation, Turin, Italy, May '13 - June '13

Topic : Effect of context on the emergence of consensus in agreement dynamics

IIT Kharagpur, May '10 - July '10

Topic : Impact of mobility models on Information Spreading on Wireless Mobile Network

TALKS

- Minerva Research Network Workshop, Wautoma, WI (2021/08)
- International Conference on Computational Social Science (IC^2S^2), Zurich, Switzerland (online) (2021/07)
- Networks 2021: A Joint Sunbelt and NetSci Conference Washington, DC (online) (2021/07)
- European Conference on Information Retrieval (ECIR '19), Cologne, Germany (2019/04)
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '18), Jersey City, USA, (2018/11)
- The Web Conference (WWW '18), Lyon, France (2018/04)
- International Conference on Supporting Group Work (GROUP '18), Florida, USA (2018/01)
- Hiedelberg Laureate Forum 2017 (2017/09)
- 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM '17), Sydney, Australia, (2017/08)

- International Conference on Web and Social Media (ICWSM '17), Montreal, Canada (2017/05)
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '17), Portland, USA (2017/02)
- Hawaii International Conference on System Sciences (HICSS-50), Big Island, Hawaii, USA (2017/01)
- ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW '16), San Francisco, USA (2016/02)
- Hawaii International Conference on System Sciences (HICSS-49), Kauai, Hawaii, USA (2016/01)
- International Conference on Web and Social Media (ICWSM '15), Oxford, UK (2015/05)
- Microsoft TechVista 2015 (2015/01)
- 2014 ASE International Conference on Social Computing (SocialCom '14), Stanford, CA, USA (2014/05)
- Bielefeld University, Bielefeld, Germany (2013/07)

TRAVEL
ASSISTANCE

- **ICWSM 2017** student travel award to attend ICWSM 2017 at Montreal, Canada.
- **SIGCHI Gary Marsden Fund** to attend CSCW 2017 at Portland, USA.
- **Google India** travel grant to attend CSCW 2016 at San Francisco, USA.
- ACM India-IARCS travel grant, International Society of Service Innovation Professionals (ISSIP) and IBM travel award for attending HICSS 2016 at Kauai, HI, USA.
- **Google India** and **Flipkart Internet Pvt. Ltd.** travel grant to attend ICWSM 2015 at Oxford, UK
- **ACM SIGMETRICS** and **COMPUTER PERFORMANCE** travel grant to attend IFIP WG 7.3 PERFORMANCE 2014 at Turin, Italy.
- **Google India** travel grant to attend SOCIALCOM 2013 at Washington DC, USA.
- Travel grant from **UNESCO Chair in Data Privacy** and **Dept. of CSE, IIT Kharagpur** to attend SOCIALCOM 2012 at Amsterdam, The Netherlands.
- Travel grant from **MPI-PKS, Dresden, Germany** and **Dept. of CSE, IIT Kharagpur** to attend MAPCON 2012 at Dresden, Germany.
- **ACM student travel grant** to attend SIGCOMM 2010 at New Delhi, India

TEACHING
ASSISTANTSHIPS

- Programming & Data Structure Lab and Theory - Autumn 2011-2012, Spring 2011-2012, Autumn 2012-2013
- Complex Networks Theory - Spring 2012-2013, Spring 2014-2015, Spring 2015-2016
- Discrete Structures - Autumn 2013-2014

- Information Retrieval - Spring 2013-2014, Spring 2016-2017, Spring 2017-2018
- Algorithms - Autumn 2017-2018
- Social Computing - Autumn 2014-2015