# RAJIV MUKHERJEE

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## ACADEMIC EXPERIENCE

- Assistant Professor, Mays Business School, Texas A&M University, 2021-present.
- Assistant Professor, Cox School of Business, Southern Methodist University, August 2013-2021.
- Research Assistant, McCombs School of Business, The University of Texas at Austin, August 2008-2013.

#### **EDUCATION**

• **Ph.D. in Information Systems Management**, Department of Information, Risk and Operations Management, The University of Texas at Austin (2013)

**Thesis Title:** "Essays on Firm Strategies and Consumer Dynamics in Socially Embedded Technology Networks".

Thesis Advisor: Anitesh Barua, The University of Texas at Austin

- Masters in Information Systems Management, Department of Information, Risk and Operations Management, The University of Texas at Austin (2011)
- Masters in Electrical Engineering, Lane Department of Computer Science and Electrical Engineering, West Virginia University (2007)

Major: Designing Biometric Authentication Systems (Machine Learning Algorithms)

**Thesis Title:** "Indexing Techniques for Fingerprint and Iris Database".

Thesis Advisor: Arun A. Ross, Michigan State University

• Bachelor of Science in Electronics and Telecommunication Engineering, University of Pune, India (2003).

#### RESEARCH INTEREST

Economics of Information Systems, Digital Platform Strategy, Platform Economics, Network Effects, Authentication System Design and Strategy, Behavioral Economics, Social Media Analytics, Big Data and Firm Performance, Social Media Analytics, Impact of Platform decisions and consumers activities on Social Welfare.

PAPERS PUBLISHED/ACCEPTED (\*Authors contributed equally and are listed in alphabetical order.)

- 1. Basu, A., Bhaskaran, S., and Mukherjee, R.,\* "An Analysis of Search and Authentication in Matching Markets." (*Management Science*, 2019).
- 2. Chellappa, R. and Mukherjee, R.,\* "Platform Preannouncement Strategies: The Strategic Role of Information in Two Sided Markets Competition." (*Management Science*, 2020.) Best Paper Runners-up Award at INFORMS e-Business).
- 3. Barua, A. and Mukherjee, R.,\* "Multi-homing Revisited: Level of Adoption and Competitive Strategies." (*Management Information Systems Quarterly*, 2021).
- 4. Basu, A., Bhaskaran, B. and Mukherjee, R.,\* "Compatibility and Information Asymmetry in Online Matching Platforms." (*Management Science*, forthcoming)

# PAPERS UNDER REVIEW/REVISION (\*Authors contributed equally.)

- 5. Chellappa, R. and Mukherjee, R.,\* "Platforms, Pricing and Piracy."
- 6. Dey, D., Lahiri, A. and Mukherjee, R.,\* "Intermediation and Variety Seeking in a Subscription Market: A Monopoly Trap?"
- 7. Bhaskaran, S., Erat, S. and Mukherjee, R.,\* "Mental Accounting Bias on Consumption of Services: The Effect of Subscription Pricing."

# PREPARING FOR SUBMISSION (\*Authors contributed equally.)

- 8. Mukherjee, R., Kannan, K. and Borwankar, S., "To be or not to be Social? Marketplace Design."
- 9. Semple, J. and Mukherjee, R.,\* "Ripple Effect Models in Social Networks."

# RESEARCH IN PROGRESS (\*Authors are listed in alphabetical order.)

- 10. Mukherjee, R. and Ketzenberg, M., "Capacity Management in Platforms."
- 11. Mukherjee, R., Sriskandarajah, C. and Shetty, B., "Machine Learning and Optimization Framework for Analyzing Ad Campaigns in an Online Platform."
- 12. Mukherjee, R., "New Product Introduction Strategies."

- 13. Mukherjee, R. and Agrawal, A., "Platform Design."
- 14. Mukherjee, R. and Koch, C., "Platform Capitalism and Efficiency Gains: Evidence from the Multiple Listing Service."
- 15. Koufteros, X., Mukherjee, R., Verghese, A. and Zhang. B,\* "Predicting Part Failure in Automobile Industry."

## OTHER PUBLICATIONS

- 16. Dey, D., Lahiri, A. and Mukherjee, R., "Close Encounters in the Movie Industry: The Recent Feud between AMC and MoviePass," Proceedings of the 2020 50th Hawaii International Conference on System Sciences (HICSS).
- 17. Mukherjee, R., "Product Introduction Strategies in the Age of Social Media," Proceedings of the 2017 50th Hawaii International Conference on System Sciences (HICSS).
- 18. Barua, A. and Mukherjee, R., "The Incumbency Protection Power of Network Effects: Hype or Reality?" Proceedings of International Conference on Information Systems (ICIS) 2011. Cited by 2 according to Google Scholar.
- Barua, A. and Mukherjee, R., "To Commit or Not Reputation and Preemption Strategies in Competing Technology Networks," Proceedings of International Conference on Information Systems (ICIS) 2011. (Nominated for the Best Paper Award).
- 20. Ross, A. and Mukherjee, R., "Augmenting Ridge Curves with Minutiae Triplets for Fingerprint Indexing", SPIE (International Society for Optics and Photonics), 2008. Cited by 66 according to Google scholar.
- 21. Mukherjee, R., "Indexing Techniques for Fingerprint and Iris Databases", MS Thesis, 2007. Cited by 15 according to Google Scholar.
- 22. Mukherjee, R. and Ross, A., "Indexing Iris Images," Pattern Recognition, 2008. Cited by 80 according to Google Scholar.
- 23. Barua, A., Mani, D and Mukherjee, R. "Measuring the Business Impacts of Effective Data," (Academic Study sponsored by Sybase) Cited by 29 according to Google Scholar.
- 24. Barua, A., Mani, D and Mukherjee, R. "Impacts of Effective Data on Business Innovation and Growth," (Academic Study sponsored by Sybase) Cited by 9 according to Google Scholar.
- 25. Barua, A., Mani, D and Mukherjee, R. "Impacts of Effective Data on Operational Efficiency," (with A. Barua and D. Mani, ISB). (Academic Study sponsored by Sybase)

## SPONSORED INDUSTRY RESEARCH

- 26. Mukherjee, R. and Barua, A., "Electronic Commerce: 'Irrational Exuberance' or No Brainer." (Academic Study sponsored by VeriSign, Presented the research in Newseum, Washington, D.C.)
- 27. Measuring the Business Impacts of Effective Data. (*Three Part Study sponsored by Sybase*, a SAP company).

# SCHOLARLY PRESENTATIONS

- 1. Mukherjee, R., Invited Talk at Haskayne School of Business, University of Calgary. "Mental Accounting Bias on Consumption of Services: The Effect of Subscription Pricing."
- 2. Mukherjee, R., Discussant at TEIS 2022.
- 3. Chellappa, R. and Mukherjee, R., "Platforms, Pricing and Piracy", Conference on Information Systems and Technology (CIST) 2021.
- 4. Basu, A., Bhaskaran, B. and Mukherjee, R., "Positioning and Authentication in Online Matching Platforms." Platform Strategy Research Symposium, 2021.
- 5. "Platforms, Pricing and Piracy" Research talk at Texas A&M University, University of Utah, University of Connecticut, George Mason University, Arizona State University. 2021.
- 6. Mukherjee, R., Bhaskaran, S. and Erat, S., "Mental Accounting Bias on Consumption of Services: The Effect of Subscription Pricing.", Workshop on Experimental and Behavioral Economics in Information Systems (WEBEIS) 2019.
- 7. Chellappa, R. and Mukherjee, R., "Platforms, Pricing and Piracy", Workshop for Information Systems and Economics (WISE) 2018. Conference on the Digital Economy (CODE) 2018.
- 8. Chellappa, R. and Mukherjee, R., "New Platform Announcement Strategies: A Duopoly of Two Sided Platforms", INFORMS 2017 Best Paper Runners Up Award at *INFORMS* e-Business Section, *CODE* 2017 at ISB, Hyderabad, India.
- 9. Mukherjee, R., "Product Introduction Strategies in the Age of Social Media.", 50th Hawaii International Conference on System Sciences (HICSS) 2017.
- 10. Mukherjee, R. and Chellappa, R., "New Platform Announcement Strategies: A Duopoly of Two Sided Platforms", Conference of Information Systems and Technology, CIST 2015, Philadelphia. Informs, 2015. Revised version presented at WISE 2016.
- 11. Mukherjee, R. and Kannan, K., "To Be or Not To Be Social: Marketplace Design", Invited Talk at Workshop for Experimental and Behavioral Economics in Information Systems, Purdue University, 2015. Revised version presented at POMS 2016, Florida.

- 12. Mukherjee, R., Bhaskaran, S. and Basu, A., "Designing Online Matching Markets", Invited Talk at Indian Institute of Management, Calcutta, India, 2015. Invited Talk at The University of Texas at Dallas Seminar Series, 2015, Dallas, TX. Presented at WISE 2015, TEIS 2016 Costa Rica, CODE 2017 at ISB Hyderabad, India.
- 13. Mukherjee, R. and Chellappa, R., "Product Introduction Strategies for Competing Platforms in Two Sided Markets.", *Invited Talk at Production and Operation Management Society*, POMS 2015, Atlanta.
- 14. Mukherjee, R. and Chellappa, R., "Product Introduction Strategies for Competing Platforms in Two Sided Markets.", *International Symposium on Information Systems* 2014, ISB Hyderabad, India.
- 15. Mukherjee, R., Bhaskaran, S. and Basu, A., "Playing God Role of Intermediary in Matching Markets", *Invited Talk at Production and Operation Management Society*, POMS 2014, Atlanta.
- 16. Mukherjee, R., "Essays on Firm Strategies and Consumer Dynamics in Socially Embedded Technology Networks", *Ph.D. Dissertation*. Invited talk at Purdue University, University of Minnesota, Southern Methodist University, Temple University, University of Delaware.
- 17. Mukherjee, R. and Kannan, K., "Cooperating with Competition: Revelation Policies and Negotiation Strategies in Socially Embedded Marketplace", *Economics Science Association 2012, Tuscon, Arizona.*
- 18. Barua, A. and Mukherjee, R., "The Incumbency Protection Power of Network Effects: Hype or Reality?.", *International Conference on Information Systems (ICIS)* 2011, Shanghai, China.
- 19. Barua, A. and Mukherjee, R., "To Commit or Not Reputation and Preemption Strategies in Competing Technology Networks, *International Conference on Information Systems (ICIS)* 2011, Shanghai, China. (Nominated for the Best Paper Award). Revised version presented at WISE 2012.
- 20. Barua, A. and Mukherjee, R., "The Incumbency Protection Power of Network Effects: Hype or Reality?.", *Doctoral Consortium, Center for International Business Education and Research*, Seattle, Washington, 2011.
- 21. Barua, A. and Mukherjee, R., "To Commit or Not Reputation and Preemption Strategies in Competing Technology Networks.", *International Symposium of Information Systems, 2010, Hyderabad, India.*
- 22. Barua, A. and Mukherjee, R., "Live Easy or Die Hard Impact of Network Effects on Migration in Online Communities.", *International Symposium of Information Systems*, 2009, Rajasthan, India.

# SELECTED MEDIA MENTIONS OF RESEARCH

"Making customers pay up may backfire: Beware of unintended congestion", Cox Today, October 2021.

"Should gaming companies release their latest, greatest platform updates early", Emory Business, December 2021.

"17 ways SMU Cox is making an impact in the business community", Cox Today, May 2020.

"Quantifying the value of effective data", Forbes, January, 2015.

"Does better data lead to better corporate performance", Forbes, September, 2011.

"Smart use of data drives dollars", Texas Enterprise, June 2011.

"Study refutes Nick Carr, Shows data – IT do matter", September 2010.

# TEACHING EXPERIENCE

<ul> <li>Building a Platform Business</li> <li>Web and Social Media Analytics</li> <li>Data Analytics Platforms.</li> <li>Web and Social Media Analytics (ITOM 6219 at SMU COX) Includes web analytics, network analytics and text analytics.</li> </ul>	Spring 2023 Fall 2021, 2022 Spring 2022. Fall 2021, 2022 Spring A 2014, 2015, 2016, 2017. Spring B 2018, 2019, 2020, 2021.
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 Managerial Decision Analysis (ITOM 6202 at SMU COX)
 Includes decision tree analysis, Optimization, and Simulation. Fall B 2013,2014, 2015,2016, 2019. Spring B 2014 Summer 2017, 2018, 2019.

 Management Information System (MIS 301 at UT Austin)
 Received Outstanding Teaching Award and Faculty Honor Roll Spring 2012

# AWARDS AND HONORS

•	Management Science Meritorious Service Award	2022
•	Aaron Becker Memorial Teaching Award	2022
•	Best Paper Runners Up Award at INFORMS e-Business	2017
	Section.	2016

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	Honor Society)	
•	Bonham Fellowship	
•	Outstanding Teaching Award and Faculty Honor Roll	2012
•	The University of Texas at Austin Continuing Fellowship	2012-2013
•	McCombs School of Business Dean's Fellowship	2009-2012
•	Scholarship from CREC (VeriSign Project)	2011
•	Professional Development Award (Office of Graduate Studies)	2011
•	Scholarship from CREC (Sybase Project)	2010
•	Recruitment Fellowship	2008-2009
•	Finalist of State Wide Business Plan Competition (WV)	2007
•	Honorary Member of Eta Kappa Nu (Honorary Society for	2007
	Electrical and Computer Engineers in USA)	
•	Finalist at National Level Robotics Competition at IIT,	2003
	Bombay, India	
•	Several awards for engineering project and	1999-2003
	Software design and development contests.	
•	National Mathematics Olympiad Merit Standing	1997, 1999

Alpha Iota Delta (Decision Sciences and Information Systems

## INDUSTRY EXPERIENCE

• L1 Identity Solutions (now Safran), CA, USA 2007-2008 R & D Engineer

Researched, designed and developed large scale Iris Recognition Algorithms for  $SIRIS^{TM}$  currently deployed all over the world including most airports.

• West Virginia University, WV, USA
Research Assistant
2005-2007

Researched designed and developed biometric (fingerprint/face/iris) based authentication system.

• Toshiba, Bangalore, India 2003-2005 Embedded Systems Engineer

Designed and developed video compression algorithms for the cellphone industry. Such algorithms enabled faster streaming at lower bandwidths.

## PROFESSIONAL SERVICE

Cluster Chair – INFORMS annual Conference 2023.

Session Chair – INFORMS annual Conference 2014, 2016, 2017, 2020. Production and Operations Management Society 2015, 2017, 2018. Workshop on Information Systems and Economics 2020.

Referee – Management Science, Information System Research, Management Information Systems Quarterly, Production and Operation Management Society, Decision Support System,

International Conference of Information Systems, Conference of Information Systems and Technology, Workshop on Information Systems and Economics.

**Discussant** – Workshop on Information Systems and Economics 2014, 2018. Theory of Economics and Information Systems 2015, 2018, 2019.

**Judge** – IBM Watson ITOM Case Competition 2014, 2015. ATT ITOM Case Competition 2013.

# SOFTWARE/PROGRAMMING SKILLS

Mathematica, Matlab, R, Stata, SAS, C, C++, .NET, Python, MySQL, MS Access, SQL Server, DB2.

## SOCIETAL IMPACT

My research explores such problems and related decisions of platforms (pricing, level of authentication, innovation) and its impact on consumer and social welfare. My research insights can steer public policy, enable better strategies for firms and society to create a win-win situation.

I bring my research insights and industry experience to class. I teach analytics and challenge my students to critically think about problems and use analytics as a toolset to solve such problems. My students solve real world problems in class using live data and this prepares them technically for the job market and thought leadership.

In terms of service, I am a member of the founding committee of the Aggies-in-Tech program and contribute to the department by improving our programs, developing new curricula and improving student experience at Mays Business School.