

# Nachiketa Sahoo

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## Work Experience

Boston University Questrom School of Business, Boston, MA	
- Associate Professor of Information Systems	2018 –
- Faculty Director of MS in Business Analytics	Sep 2022 –
- Assistant Professor of Information Systems	2011 – 2018
- Reidy Family Career Development Professor	2013 – 2016
- Hariri Institute Junior Faculty Fellow	2012 – 2014
Tepper School of Business, Carnegie Mellon University, Pittsburgh, PA	
- Visiting Assistant Professor in Information Systems	Sep'09 – Jun '11
IBM Almaden Research Center, San Jose, CA	
- Research Intern	May'07 – Aug '07
i2 Technologies, Bangalore, India	
- Software Engineer	Jun'01 – Jul'02
Patni Computer Systems, Mumbai, India	
- Software Engineer Intern	May'00 – Jul'00

## Education

Carnegie Mellon University, Pittsburgh, PA	
- PhD in Information Systems and Management, Heinz College	Dec '09
“Three Essays on Enterprise Information Systems Mining for Business Intelligence” Committee: Dr Ramayya Krishnan (Chair), Dr Jamie Callan, Dr Christos Faloutsos	
- MS in Knowledge Discovery and Data Mining, ML Department, SCS	May '06
“Incremental hierarchical clustering of text documents”	
Indian Institute of Technology, Kharagpur, India	
- BTech in Industrial Engineering	May '01

## Research

### Journal Publications

1. “Uncovering Characteristic Response Paths of a Population”, Y. Song, N. Sahoo, C. Dellarocas, S. Srinivasan, *INFORMS Journal on Computing*, 2022
2. “Matching Returning Donors to Projects on Philanthropic Crowdfunding Platforms”, Y. Song, Z. Li, N. Sahoo. *Management Science*, 2021
3. “Reducing Product Expiration by Aligning Salesforce Incentives: A Data-driven Approach”, A. Akkas, N. Sahoo. *Productions and Operations Management*, 2020
4. “When and How to Diversify — A Multi-Category Utility Model for Personalized Content Recommendation”, Y. Song, N. Sahoo, E. Ofek; *Management Science*, 2019
5. “The Impact of Online Product Reviews on Product Returns”, N. Sahoo, C. Dellarocas, S. Srinivasan; *Information Systems Research*, 2018
6. “How to Attract and Retain Readers in Enterprise Blogging?”, P. Singh, N. Sahoo, T. Mukhopadhyay *Information Systems Research*, 2014
7. “A Hidden Markov Model for Collaborative Filtering”, N. Sahoo, P. Singh, T. Mukhopadhyay, *MIS Quarterly*, 2012
8. “The Halo Effect in Multi-component Ratings and its Implications for Recommender Systems: The Case of Yahoo! Movies”, N. Sahoo, R. Krishnan, G. Duncan, J. Callan, *Information*

### **Journal Editorials**

1. “Editor’s Comments: Machine Learning in Information Systems Research”, B. Padmanabhan, X. Fang, N. Sahoo, A. Burton-Jones, *MIS Quarterly*, 2022
2. “Introduction to the Special Issue on Pattern-Driven Mining, Analytics, and Prediction for Decision Making, Part 1”, L. Cwei, N. Sahoo, G. Srivastava, W. Ding, *ACM Transactions on Management Information System (TMIS)*, 2022
3. “Introduction to the Special Issue on Pattern-Driven Mining, Analytics, and Prediction for Decision Making, Part 2”, L. Cwei, N. Sahoo, G. Srivastava, W. Ding, *ACM Transactions on Management Information System (TMIS)*, 2022

### **Papers in Proceedings with Copyright**

1. “Applications of Voting Theory to Information Mashups” *In Proceedings of the second IEEE International Conference on Semantic Computing (ICSC’08)*, A. Alba, V. Bhagwan, J. Grace, D. Gruhl, K. Haas, M. Nagarajan, J. Pieper, C. Robson, N. Sahoo
2. “Incremental Hierarchical Clustering of Text Documents.” *In Proceedings of the Fifteenth ACM International Conference on Information and Knowledge Management (CIKM’06)*, N. Sahoo, J. Callan, R. Krishnan, G. Duncan, R. Padman. **15% acceptance rate.**

### **Working Papers**

1. “Effect of Content Sourcing Strategy on Online News Subscription”, X. Yang, N. Sahoo, and T. Simcoe
2. “Stability, Fairness and the Pursuit of Happiness in Recommender Systems”, G. Benadé and N. Sahoo

### **Doctoral Students**

#### Primary Advisor

1. Yicheng Song, 2012–2017, joined Management Information Systems department at Carlson School of Management, University Minnesota in Aug 2017
2. Xiaoli (Richard) Yang, 2016 – 2022

#### Committee Member

1. Kellas Cameron (Operations and Technologies Management), 2013 – 2018, joined Information Systems Decision Sciences department at Muma College of Business, University of South Florida in July 2018

### **Conferences and Workshop Presentations**

1. “Stability, Fairness and the Pursuit of Happiness in Recommender Systems”, G. Benadé and N. Sahoo
  - *Workshop on Information Technologies and Systems (WITS ’22)*
2. “Effect of Content Sourcing Strategy on Online News Subscription”, X. Yang and N. Sahoo
  - *Workshop on Information Systems and Economics (WISE ’19)*
  - *Conference on Digital Experimentation (CODE@MIT ’19)*
  - *Conference in Information Systems and Technology (CIST ’19)*
  - *Marketing Dynamics Conference (MDC ’19)*
  - *INFORMS Annual Meeting (INFORMS ’18)*
3. “Matching Donors to Projects on Philanthropic Crowdfunding Platforms”, Y. Song, Z. Li, N. Sahoo

- *Workshop on Information Technologies and Systems (WITS '18)*
  - *INFORMS Annual Meeting (INFORMS '18)*
  - *Conference in Information Systems and Technology (CIST '18)*, **Winner of the best paper award.**
  - *Marketing Dynamics Conference (MDC '18)*
  - *Symposium on Statistical Challenges in eCommerce Research (SCECR '18)*
4. "How Much is the Value of Genomic Test Information? Evidence from Post-cardiac-stent Care Decisions", K. Cameron, N. Sahoo, N. Joglekar, J. Jain
    - *POMS Annual Conference (2018)*
    - *Workshop on Information Systems and Economics (WISE '17)*
    - *Conference on Digital Experimentation (CODE@MIT '17)*
    - *2017 INFORMS Workshop on Data Science*
  5. "Reducing Product Expiration Through Salesforce Compensation Schemes", A. Akkas and N. Sahoo
    - *POMS Annual Conference (2018)*
    - *2017 Workshop on Empirical Research in Operations Management at the Wharton School*
    - *2016 INFORMS Annual Meeting, Nashville*
  6. "When Diversity Becomes Relevant — A Multi-Category Utility Model of Consumer Response to Content Recommendations", Y. Song, N. Sahoo, E. Ofek
    - *Marketing Dynamics Conference (MDC '17)*
    - *Workshop on Information Systems Economics (MDC '16)*
    - *Digital Marketing Conference at Stanford GSB, 17% acceptance rate. (2016)*
    - *Conference in Information Systems and Technology (CIST '16)*
    - *Statistical Challenges in eCommerce Research (SCECR '16)*
    - *Winter Conference on Business Intelligence (WCBI '16)*
  7. "Uncovering Characteristic Paths to Purchase of Consumers", Y. Song, N. Sahoo, S. Srinivasan, and C. Dellarocas
    - *Marketing Dynamics Conference (MDC '16)*
    - *NYU 2015 Conference on Digital Big Data, Smart Life, Mobile Marketing Analytics*
    - *37th ISMS Marketing Science Conference (ISMS '15)*
    - *Winter Conference in Business Intelligence (WCBI '15)*
    - *Workshop on Information Technologies and Systems (WITS '14)*, **Winner of the best paper award.**
    - *Statistical Challenges in eCommerce Research Symposium (SCECR '14)*
  8. "An individual level preference model for predicting new product diffusion", *2016 POMS Annual Conference*, N. Sahoo, N. Joglekar.
  9. "The effect of correlated user preferences on the diffusion of new products", *2015 POMS Annual Conference*, N. Sahoo, N. Joglekar, K. Cameron.
  10. "Demystifying the Path to Purchase: A State Space Modeling Approach", N. Sahoo, C. Dellarocas, S. Srinivasan
    - *Statistical Challenges in eCommerce Research Symposium (SCECR '13)*
    - *Conference on Information Systems and Technology (CIST '13)*
  11. "A Hidden Markov Model for Collaborative Filtering", *The 2011 Winter Conference on Business Intelligence*, N. Sahoo, P. Singh, T. Mukhopadhyay
  12. "Seeking Variety: A Dynamic Model of Employee Blog Reading Behavior", P. Singh, N. Sahoo, T. Mukhopadhyay

- *Workshop on Information Systems Economics (WISE '10)*
  - *The Sixth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR '10)*
  - *The 2010 Winter Conference on Business Intelligence*
13. "Expertise Discovery from Blogs by Tensor Factorization", N. Sahoo, R. Krishnan
    - *Conference on Information Systems and Technology (CIST '10)*
    - *Workshop on Information in Networks (WIN'09)*
    - *The Eighteenth Annual Workshop on Information Technologies and Systems (WITS'08)*
  14. "Formation of Citation and Reply ties over intra-organizational blog network", N. Sahoo, R. Krishnan, J. Callan
    - *Fourth Symposium on Statistical Challenges in Electronic Commerce Research (SCECR'08)*
    - *Conference on Information Systems and Technology (CIST'08)*
  15. "Collaborative Filtering with Multi-component Rating for Recommender Systems." *In Proceedings of the Sixteenth Annual Workshop on Information Technologies and Systems (WITS'06)*, N. Sahoo, R. Krishnan, G. Duncan, J. Callan

### Invited Presentations

1. Eli Broad College of Business, Michigan State University Sep 2022
2. Sheldon B. Lubar School of Business, Wisconsin Milwaukee seminar Oct 2021
3. Foster School of Business in University of Washington Oct 2020
4. Kelley School of Business in Indiana University Nov 2019
5. Naveen Jindal School of Management, University of Texas Dallas Sep 2019
6. MIS seminars series of the IDSc department, University of Minnesota April 2019
7. Digital Innovation Workshop, Carroll School of Management, Boston College May 2017
8. Global Center on Big Data and Mobile Analytics Workshop, Temple University Feb 2017
9. OPIM Research Workshop, University of Connecticut Apr 2015
10. MISRC Research Workshop, University of Minnesota Oct 2014
11. Hariri Institute Junior Faculty Fellow Talk, Boston University May 2014
12. Wharton Customer Analytics Initiative Symposium Sep 2013
13. INFORMS Annual Meeting Data Mining Session Oct 2008
14. INFORMS Annual Meeting Data Mining Session Nov 2007

### Other Reports

1. "The Impact of Online Product Reviews on Product Returns", *MSI working paper*, N. Sahoo, C. Dellarocas, and S. Srinivasan, 2016, 16-101
2. "Artist Ranking through Analysis of Online Community Comments", *IBM Research Technical Report*, J. Grace, D. Gruhl, K. Haas, M. Nagarajan, C. Robson, N. Sahoo

### Older Publications

1. "An Approach to Multi-objective Facility Layout Planning.", N. Sahoo, T. Shekhar, S. Sahu, *Industrial Engineering Journal, 2002, XXXI No. 4*

### Teaching

- Supervised Machine Learning (BA810) Fall 2022
- Machine Learning Method for Social Science Research (DS919) Springs of 2019, 2021, 2022
- Managing Data Resources (IS465) Fall 2011 – 2022
- Management Information Systems (70451) Fall '10, Spring '10, Fall '09

- Directed Study on Choice Models Fall '14, Spring '14
- Directed Study on Machine Learning Fall '13
- Advanced Business Analytics: Data Mining (IS841) Fall '14, Fall '13
- Doctoral Seminar in Information Systems (IS919) Fall '12
- Designing Systems and Data Management (IS883) Fall '11

## Service to the Field

### Editorial Board Appointments

- Associate Editor for MIS Quarterly 2021 – 2024
- Associate Editor for the *ISR special issue on Market Design and Analytics* – 2021 2020
- Adhoc Associate Editor for Information Systems Research 2021
- Associate Editor for the *MISQ special issue on Managing AI* 2019
- Associate Editor for *ACM Transactions on Management Information Systems* 2017 –
- Guest Co-editor for the *ACM TMIS special issue on Pattern-Driven Mining, Analytics and Prediction for Decision Making* 2020 – 2021

### Associate Editor for Conferences:

- The *International Conference of Information Systems* 2016, 2018, 2019, 2020, 2021

**Reviewer for Journals:** Management Science, Information Systems Research, Management Information Systems Quarterly, Informs Journal on Computing, Transactions on Management Information Systems, Journal of Organizational Computing and Electronic Commerce, Production and Operations Management, ACM Transactions on Economics and Computation, ACM Transactions on Intelligent Systems and Technology, Transactions on Engineering Management, ACM Computing Surveys

**Reviewer for Conferences and Workshops:** International Conference on Information Systems, ACM Conference on Electronic Commerce, ACM SIGIR Conference, AAAI Conference on Artificial Intelligence, Workshop in Information Technology and Systems

### Other

- Workshop in Information Technology and Systems board member 2020 – 2024
- Co-chair for Workshop in Information Technology and Systems 2021
- Co-developer/instructor of MISQ ML masterclass for editors and authors 2021
- MISQ Reviewer development workshop mentor 2021, 2022
- Program co-chair for the third INFORMS workshop on Data Science 2019
- Publicity co-chair for the first INFORMS workshop on Data Science 2017
- Program committee member for the Statistical Challenges in eCommerce Research 2016
- Program committee member Conference on Information Systems and Technology 2011 – 2017
- Program committee member Workshop in Information Technology and Systems 2014 – 2020
- Session organizer at INFORMS annual meeting on Recommender Systems 2011 – 2012
- Program committee member for ACM Conference on Electronic Commerce 2012

## Service to the University

- MSDT Program Development Committee member 2017 –
- Questrom School of Business PhD Program Development Committee member 2017 – 2022
- Analytics working group member for planning a new MSBA program 2017 – 2018
- Organizer of Information Systems speaker series at Questrom School of Business 2012 – 2019

## **Awards**

- Best Paper at the INFORMS Conference in Information Systems and Technology 2018
- Broderick Prize for Outstanding Faculty Contribution to the Doctoral Community and Program at Questrom School of Business 2017
- Best Paper at the 24th Workshop on Information Technologies and Systems 2014
- ISR Best reviewer for the year (Award date 11/8/2014) 2013
- Reidy Family Career Development Professorship 2013 – 2016
- Junior Faculty Fellow of the Hariri Institute for Computing and Computational Science and Engineering of Boston University 2012 – 2014
- Award from the Sponsored Research and Industrial Consultancy unit at Indian Institute of Technology, Kharagpur 2000

## **Grants**

- (Co-PI) Boston University's Hariri Institute Research Project Award for "Identifying experts and effective teams of experts" \$50,000 Jun '12
- (Co-PI) Yahoo! faculty research and engagement unrestricted gift for the proposal titled "Strategies for Advertising on Social Networks" \$25,000 Dec '09

## **Professional Affiliation**

- Association for Information Systems
- INFORMS and INFORMS Information Systems Society

(Updated on February 3, 2023.)