

Rodrigo Belo

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ACADEMIC POSITIONS

2023- Nova University Lisbon, *Professor*, Nova School of Business and Economics
2018-2022 Erasmus University, *Associate Professor*, Rotterdam School of Management
2015-2018 Erasmus University, *Assistant Professor*, Rotterdam School of Management
2012-2015 Carnegie Mellon University, *Post-doctoral Researcher*, Heinz College

EDUCATION

2012 Carnegie Mellon University, *Ph.D.*, *Technological Change & Entrepreneurship*, Engineering & Public Policy
2011 Carnegie Mellon University, *M.Sc.*, *Engineering and Public Policy*, Engineering & Public Policy
2002 Technical University of Lisbon, *B.Sc.*, *Computer Science and Engineering (5-year degree)*, Instituto Superior Técnico

JOURNAL/PROFESSIONAL PUBLICATIONS

Effects of Explicit Sponsorship Disclosure on User Engagement in Social Media Influencer Marketing with Zike Cao, **MIS Quarterly**, 2024.
Optimal Electricity Imbalance Pricing for the Emerging Penetration of Renewable and Low-Cost Technologies with Yashar Ghiassi, Mohammed Reza and Derek Bunn, **MSOM**, 2023.
Incentive Misalignments in Programmatic Advertising: Evidence from a Randomized Field Experiment with Thomas Frick and Rahul Telang, **Management Science**, 2023.
To make a profit, dating apps must leverage data differently with Ting Li, **Harvard Business Review**, 2022.
Social Referral Programs for Freemium Platforms with Ting Li, **Management Science**, 2022.
Free Riding in Products with Positive Network Externalities: Empirical Evidence from a Large Mobile Network with Pedro Ferreira, **MIS Quarterly**, 2022.
Welfare Properties of Recommender Systems: Theory and Results from a Randomized Experiment with Pedro Ferreira, Xiaochen Zang and Miguel Godinho de Matos, **MIS Quarterly**, 2021.
The Impact of Time-Shift TV on TV Viewership and on Ad Consumption with Miguel Godinho de Matos, Pedro Ferreira and Filipa Reis, **Management Science**, 2019.
Target the Ego or Target the Group: Evidence from a Randomized Experiment in Proactive Churn Management with Miguel Godinho de Matos and Pedro Ferreira, **Marketing Science**, 2018.
Spillover Effects from Wiring Schools with Broadband: the Critical Role of Children with Pedro Ferreira and Rahul Telang, **Management Science**, 2016.
Broadband in School: Impact on Student Performance with Pedro Ferreira and Rahul Telang, **Management Science**, 2014.

WORKING PAPERS

Can Reward Uncertainty Encourage Social Referrals? Evidence from Large-scale Field Experiments with Andy Tao Li and Ting Li (*R&R at Management Science*)
Climbing the Ladder or Falling Behind: The Role of Leaderboard Composition in User Engagement with Agnieszka Kloc and Ting Li (*R&R at Information Systems Research*).
Generative AI and Student Performance: Evidence from a Large-Scale Intervention in a Digital Business Course with Dimitrios Tsekouras and Philipp Cornelius (*in preparation for journal submission*)
Inflating views: The effect of paid views on music consumption with May Truong (*in preparation for journal submission*)

PAPERS IN REFEREED CONFERENCE PROCEEDINGS

Ioannis Kanellopoulos, Rodrigo Belo, Ting Li (2024). “How Anti-ghosting Interventions Affect Matchmaking”, *International Conference on Information Systems (ICIS, Bangkok, Thailand)*, December 2024.

- Dimitrios Tsekouras, Rodrigo Belo (2023). “Generative AI and Student Performance: Evidence from a Large-Scale Intervention in a Digital Business Course”, *International Conference on Information Systems (ICIS, Bangkok, Thailand)*, December 2024.
- Rodrigo Belo, Miguel Godinho de Matos, Pedro Ferreira, Filipa Reis (2017). “The Impact of Time-Shift TV on TV Viewership and on Ad Consumption”, *International Conference on Information Systems (ICIS, Seoul, Korea)* December 2017.
- Rodrigo Belo, Pedro Ferreira, Rahul Telang (2013). “Spillover Effects of Broadband in Schools and the Critical Role of Children”, *23rd Workshop on Information Technology and Systems, WITS 2013*, Milan, Italy, December 14-15.
- Rodrigo Belo, Miguel Godinho de Matos, Pedro Ferreira (2013). “Prime-Time Any Time: The Effect of Time-shifted TV on Media Consumption”, *23rd Workshop on Information Technology and Systems, WITS 2013*, Milan, Italy, December 14-15.
- Rodrigo Belo, Pedro Ferreira (2012). “Using Randomization to Identify Social Influence in Mobile Networks”, *The Fourth IEEE International Conference on Social Computing, SocialCom 2012*, Amsterdam, Netherlands, September 3-5.
- Rodrigo Belo, Pedro Ferreira, Rahul Telang (2010). “Broadband in Schools: Does it help or hurt student performance?”, *International Conference on Information Systems (ICIS, St. Louis)*, December 2010.

PAPERS IN REFEREED CONFERENCES / WORKSHOPS

- May Truong, Rodrigo Belo (2024). “Inflating views: The effect of paid views on music consumption”, *The 35th Workshop on Information Systems and Economics*. Bangkok, Thailand, December 18-20.
- Ioannis Kanellopoulos, Rodrigo Belo, Ting Li (2024). “How Anti-ghosting Interventions Affect Matchmaking”, *Conference on Information Systems and Technology*. Seattle, WA, October 19-20, 2024.
- Dimitrios Tsekouras, Rodrigo Belo (2023). “Generative AI and Student Performance: Evidence from a Large-Scale Intervention in a Digital Business Course”, *The 34th Workshop on Information Systems and Economics*. Hyderabad, India, December 13-15.
- Andy Tao Li, Rodrigo Belo, Ting Li (2023). “Could Reward Uncertainty Encourage Social Referrals? Evidence from Large-scale Field Experiments”, *The 34th Workshop on Information Systems and Economics*. Hyderabad, India, December 13-15.
- Andy Tao Li, Rodrigo Belo, Ting Li (2023). “Could Reward Uncertainty Encourage Social Referrals? Evidence from Large-scale Field Experiments”, *Conference on Information Systems and Technology*. Phoenix, Arizona, October 14-15.
- Kevin Bösch, Oliver Müller, Markus Weinmann, Rodrigo Belo (2022). “The Effect of Loss-Gain Framed Messages on App-based Retirement Savings Decisions”, *The 33rd Workshop on Information Systems and Economics*. Copenhagen, Denmark, December 14-16.
- Charles Wan, Rodrigo Belo, Leid Zejnilovic, “Algorithmic Explanations and Human Decision-Making: A Randomized Field Experiment”, *Digital Economy Workshop*. Norwich, March 27-29.
- Agnieszka Kloc, Rodrigo Belo, Ting Li (2021). “Gamification and learning: The impact of competitive structures on user engagement in the educational online platforms”, *The 32nd Workshop on Information Systems and Economics*. Austin, Texas, December 16-17.
- Agnieszka Kloc, Rodrigo Belo, Ting Li (2021). “Gamification and learning: The impact of competitive structures on user engagement in the educational online platforms”, *CODE@MIT*. Online, November 3-4.
- Zike Cao, Rodrigo Belo (2021). “Effects of Explicit Sponsorship Disclosure on User Engagement in Social Media Influencer Marketing”, *INFORMS Annual Meeting*, 2021.
- Agnieszka Kloc, Rodrigo Belo, Ting Li (2021). “Gamification and learning: The impact of competitive structures on user engagement in the educational online platforms”, *Seventeenth Symposium on Statistical Challenges in Electronic Commerce Research*, Online, June 17- 18.
- Rodrigo Belo, Pedro Ferreira, Yael Inbar, Ryan Turner (2019) “Wifi Usage on Campus and Students Academic Performance”, *Workshop on Information Systems and Economics, WISE 2019*, Munich, Germany, December 19-20.
- Zike Cao, Rodrigo Belo, “Effects of Disclosing Sponsorship on User Engagement in Social Media”, *Workshop on Information Systems and Economics, WISE 2018*, San Francisco, USA, December.
- Thomas Frick, Rahul Telang, Rodrigo Belo (2017), “Pay For What You Get - Incentive Misalignments in Programmatic Advertising: Evidence from a Randomized Field Experiment”, *Workshop on Information Systems and Economics, WISE 2017*, Seoul, Korea, December 13-15.
- Dirk de Raaff, Rodrigo Belo, Ting Li (2017). “Crafting Personalized Incentives: A Randomized Field Experiment in an Online Dating Platform”, *Workshop on Information Systems and Economics, WISE 2017*, Seoul, Korea, December 13-15.

- Dirk de Raaff, Rodrigo Belo, Ting Li (2017). "Crafting Personalized Incentives: A Randomized Field Experiment in an Online Dating Platform", *CODE@MIT*. Boston, Massachusetts, October 27-28.
- Rodrigo Belo, Ting Li, "Referral Policies for Platform Growth: A Randomized Experiment in an Exclusive Online Dating Site", *Workshop on Information Systems and Economics, WISE 2016*, Dublin, Ireland, December 14-16.
- Rodrigo Belo, Miguel Godinho de Matos, Pedro Ferreira, Xiaochen Zang (2015). "Recommender Systems and Consumer Welfare: Results from a Randomized Experiment in Video on Demand", *Workshop on Information Systems and Economics, WISE 2015*, Dallas, Texas, December 12-13.
- Rodrigo Belo, Miguel Godinho de Matos, Pedro Ferreira, Xiaochen Zang (2015). "Recommender Systems and Consumer Welfare: Results from a Randomized Experiment in Video on Demand", *CODE@MIT*. Boston, Massachusetts, October 16-17.
- Miguel Godinho de Matos, Pedro Ferreira, Rodrigo Belo (2015). "Target the Ego or Target the Group: Evidence from a Randomized Experiment in Pro-Active Churn Management", *CODE@MIT*. Boston, Massachusetts, October 16-17.
- Miguel Godinho de Matos, Pedro Ferreira, Rodrigo Belo (2015). "Target the Ego or Target the Group: Evidence from a Randomized Experiment in Pro-Active Churn Management", *Centre for European Economic Research (ZEW)*, Mannheim, Germany.
- Rodrigo Belo, Pedro Ferreira (2014). "Identifying Network Externalities in Viral Products: Evidence from a Large Mobile Network", *Workshop on Information Systems and Economics, WISE 2014*, Auckland, New Zealand, December 18-19.
- Rodrigo Belo, Miguel Godinho de Matos, Pedro Ferreira (2014). "Price Discounts and Peer Effects in Information Goods: A Randomized Experiment", *Conference on Information Systems and Technology, CIST 2014*, San Francisco, CA, November 8-9.
- Rodrigo Belo, Pedro Ferreira (2014). "Identifying Network Externalities in Viral Products: Evidence from a Large Mobile Network", *Conference on Information Systems and Technology, CIST 2014*, San Francisco, CA, November 8-9.
- Rodrigo Belo, Pedro Ferreira, Rahul Telang (2013). "Spillover Effects of Broadband in Schools and the Critical Role of Children", *Workshop on Information Systems and Economics, WISE 2013*, Milan, Italy, December 19-20.
- Rodrigo Belo, Miguel Godinho de Matos, Pedro Ferreira (2013). "Prime-Time Any Time: The Effect of Time-shifted TV on Media Consumption", *41st Research Conference on Communication, Information and Internet Policy (TPRC 2013)*, Washington DC, September 27-29.
- Rodrigo Belo, Pedro Ferreira (2013). "Is Social Influence Always Positive? Evidence from a Very Large Mobile Network", *NBER Summer Institute 2013, Economics of Information Technology and Digitization Workshop*, Boston, Massachusetts, July 17-19.
- Rodrigo Belo, Pedro Ferreira (2013). "Is Social Influence Always Positive? Evidence from a Very Large Mobile Network", *Statistical Challenges in eCommerce Research Symposium (SCeCR 2013)*, Lisbon, Portugal, June 27-28.
- Rodrigo Belo, Pedro Ferreira (2013). "Is Social Influence Always Positive? Evidence from a Very Large Mobile Network", *Third Conference on the Analysis of Mobile Phone Datasets and Networks (NetMob 2013)*, Boston, Massachusetts, May 1-3.
- Rodrigo Belo, Pedro Ferreira (2012). "Spillover Effects of Broadband in Schools and the Critical Role of Children", *Academy of Management Annual Meeting*, Boston, Massachusetts, August 3-7.
- Rodrigo Belo, Pedro Ferreira (2012). "Using Randomization Methods to Identify Social Influence in Mobile Networks", *Statistical Challenges in eCommerce Research Symposium*, Montreal, Quebec, June 28-29.
- Rodrigo Belo, Pedro Ferreira (2012). "Spillover Effects of Broadband in Schools and the Critical Role of Children", *2012 Industry Studies Association Annual Conference*, Pittsburgh, May 29-June 1.
- Rodrigo Belo (2012). "Social Influence and Product Adoption in Mobile Networks", *ICTNET 4th Workshop*, London, April 23-24, 2012.
- Rodrigo Belo (2011). "From School to Home: Spillover Effects of Broadband in Schools and the Critical Role of Children", *ICTNET 3rd Workshop*, Mannheim, October 24-25.
- Rodrigo Belo, Pedro Ferreira (2011). "Using Randomization Methods to Identify Social Influence in Mobile Networks", *Second Conference on the Analysis of Mobile Phone Datasets and Networks (NetMob 2011)*, Cambridge, Massachusetts, October 10-11.
- Rodrigo Belo, Pedro Ferreira, Rahul Telang (2011). "The Effects of Broadband in Schools: Evidence from Portugal", *Centre for European Economic Research (ZEW)*, Mannheim, Germany, June 27-28.
- Rodrigo Belo, Pedro Ferreira, Rahul Telang (2010). "The Effects of Broadband in Schools: Evidence from Portugal", *National Bureau of Economic Research (NBER)*, Cambridge, Massachusetts, July 23-24.

CONFERENCE AND INVITED SEMINAR PRESENTATIONS

"Could Reward Uncertainty Encourage Social Referral? Evidence from Large-scale Field Experiments"

Beihang University, China, December 2024.

Workshop on Information Systems and Economics, WISE 2023, Hyderabad, India, December 13-15 2023.

Tilburg University, Netherlands, December 2023.

Conference on Information Systems and Technology. Phoenix, Arizona, October 14-15.

Rotterdam School of Management, Erasmus University, Netherlands, June 2023.

HEC Paris, France, May 2023.

McGill University, Canada, April 2023.

“Algorithmic Explanations and Human Decision-Making: A Randomized Field Experiment”

University of Cologne, Germany, July 2022.

Digital Economy Workshop. Norwich, March 27-29.

“Incentive Misalignments in Programmatic Advertising: Evidence from a Randomized Field Experiment”, *Tel Aviv University, Israel*, December 2020.

“Referral Programs for Freemium Platforms: Evidence from a Randomized Field Experiment”

NBER Summer Institute 2019, Economics of Information Technology and Digitization Workshop, Boston, Massachusetts, July 17-19.

Universidade Nova de Lisboa, Portugal, March 2020.

Tilburg University, The Netherlands, November 2019.

Workshop on Information Systems and Economics, WISE 2016, Dublin, Ireland, December 14-16.

“Effects of Disclosing Sponsorship on User Engagement in Social Media”, *Workshop on Information Systems and Economics, WISE 2018*, San Francisco, USA, December.

“Crafting Personalized Incentives: A Randomized Field Experiment in an Online Dating Platform”, *CODE@MIT 2017*. Boston, Massachusetts, October 27-28.

“Referral Policies for Optimal Growth: A Randomized Experiment”, *CODE@MIT 2016*. Boston, Massachusetts, October 14-15.

“Target the Ego or Target the Group: Evidence from a Randomized Experiment in Pro-Active Churn Management”, *CODE@MIT 2015*. Boston, Massachusetts, October 16-17.

“Identifying Network Externalities in Viral Products: Evidence from a Large Mobile Network”, *Workshop on Information Systems and Economics, WISE 2014*, Auckland, New Zealand, December 18-19.

“Prime-Time Any Time: The Effect of Time-shifted TV on Media Consumption”, *23rd Workshop on Information Technology and Systems, WITS 2013*, Milan, Italy, December 14-15.

“Is Social Influence Always Positive? Evidence from a Very Large Mobile Network”

NBER Summer Institute 2013, Economics of Information Technology and Digitization Workshop, Boston, Massachusetts, July 17-19.

Statistical Challenges in eCommerce Research Symposium (SCeCR 2013), Lisbon, Portugal, June 27-28.

“Spillover Effects of Broadband in Schools and the Critical Role of Children”, *2012 Industry Studies Association Annual Conference*, Pittsburgh, May 29-June 1.

“Social Influence and Product Adoption in Mobile Networks”, *ICTNET 4th Workshop*, London, April 23-24, 2012.

“From School to Home: Spillover Effects of Broadband in Schools and the Critical Role of Children”, *ICTNET 3rd Workshop*, Mannheim, October 24-25, 2011.

“Using Randomization Methods to Identify Social Influence in Mobile Networks”, *Second Conference on the Analysis of Mobile Phone Datasets and Networks (NetMob 2011)*, Cambridge, Massachusetts, October 10-11.

“The Effects of Broadband in Schools: Evidence from Portugal”, *Centre for European Economic Research (ZEW)*, Mannheim, Germany, June 27-28, 2011.

“Broadband in Schools: Does it help or hurt student performance?”, *International Conference on Information Systems (ICIS, St. Louis)*, December 2010.

“The Effects of Broadband in Schools: Evidence from Portugal”, *SETChange seminar*, Carnegie Mellon University, October 2009.

TEACHING

AI Impact on Business (Executive MBA), The Lisbon MBA

Course Author and Instructor:

Spring 2023 (12 students)

Spring 2022 (22 students)

AI Impact on Business (MSc.), Nova School of Business and Economics, Nova University Lisbon

Course Author and Instructor:

Spring 2023 - T3 (81 students)

Network Analytics (MSc.), Nova School of Business and Economics, Nova University Lisbon

Course Author and Instructor:

Spring 2023 - T3 (91 students)

Spring 2022 - T3 (85 students)

Marketing Analytics (MSc.), Nova School of Business and Economics, Nova University Lisbon

Course Author and Main Instructor:

Spring 2021 - T4 (70 students)

Network Data Analytics (MSc.), Rotterdam School of Management, Erasmus University Rotterdam

Course Author and Main Instructor:

Spring 2021 - Block 3 (120 students)

Spring 2020 - Block 3 (80 students)

Spring 2019 - Block 3 (70 students)

Spring 2018 - Block 3 (65 students)

Spring 2017 - Block 3 (60 students)

Big Data Management and Analytics (MSc.), Rotterdam School of Management, Erasmus University Rotterdam

Course Author and Main Instructor:

Fall 2022 - Block 2 (200 students)

Fall 2021 - Block 2 (245 students)

Fall 2020 - Block 2 (250 students)

Fall 2019 - Block 2 (283 students)

Fall 2018 - Block 2 (259 students)

Fall 2017 - Block 2 (320 students)

Fall 2016 - Block 2 (360 students)

Fall 2015 - Block 2 (259 students)

Digital Analytics (Open Program), Rotterdam School of Management, Erasmus University Rotterdam

Course Author and Main Instructor:

Spring 2021 (14 participants)

Spring 2019 (14 participants)

Fall 2018 (13 participants)

Spring 2018 (24 participants)

Big Data and Business Analytics (Exec Ed), Catolica Lisbon

Instructor:

Spring 2021 (18 participants)

Spring 2019 (21 participants)

Spring 2018 (24 participants)

Spring 2017 (18 participants)

Fall 2016 (25 participants)

Social Network Analysis (MSc.), Spring 2016 - Block 4, Rotterdam School of Management, Erasmus University Rotterdam,

Course Author and Main Instructor (55 students).

Python for Data Analytics (MSc.), Spring 2015 - Mini 4, Heinz College, Carnegie Mellon University,

Course Author and Main Instructor (60 students).

Business Research Methods (MSc.), Spring 2015 - Mini 3, Católica-Lisbon SBE,

Main Instructor (68 students).

Large Dataset Analytics and Economic Analysis (Executive education), Summer 2013, NOS Multimedia - Telecom Provider,

Course co-Author and Instructor (14 students).

PROFESSIONAL ACTIVITIES

Associate Editor, Management of Information Systems Quarterly Information Systems Research, Special Issue on AI-IA Nexus.

Associate Editor, Information Systems Research, Special Issue on Market Design and Analytics.

Track Chair, International Conference on Information Systems (ICIS):

Track: Digital and Mobile Commerce (2022)

Track: Digital Learning and Future of IS Curricula (2021)

Associate Editor, International Conference on Information Systems (ICIS):

Track: Digital Learning and Future of IS Curricula (2020)

Track: General Topics (2019)

Track: Economics and IS (2018)

Track: Big Data (2017)

Ad-hoc Reviewer:

Management Science

MIS Quarterly

Information Systems Research

Production and Operations Management Journal

Co-chair of workshop on Statistical Challenges in Electronic Commerce Research (SCECR) in Rotterdam, 2018

Co-organizer & Technical mentor of Data Science for Social Good (DSSG) - Europe, 2017

Departmental service:

PhD Research Seminar on Information Systems, Coordinator, RSM, 2018-2022.

Seminar Speaker Coordinator, RSM, 2016-19.

Member, Association for Information Systems, 2012-present

ADVISING

Ph.D. Students, Daily Supervisor:

Agnieszka Kloc (2024, expected)

Ph.D. Students, Committee Member:

Ioannis Kanellopoulos (Erasmus University Rotterdam, 2024)

Baojiang Yang (Carnegie Mellon University, 2018)

Xiaochen Zhang (Carnegie Mellon University, 2017)

Ryan Turner (Carnegie Mellon University, 2015)

HONORS, AWARDS, & FELLOWSHIPS

FCT Grant (125K Eur.) - Artificial Intelligence, Data Science and Cybersecurity of relevance in Public Administration (Title: "Improving job seekers' odds with Large Language Models: randomized controlled trials at Instituto de Emprego e Formação Profissional (IEFP)")

Best Paper Award - eBusiness Section (Title: "Effects of Explicit Sponsorship Disclosure on User Engagement in Social Media Influencer Marketing"), INFORMS Annual Meeting, 2021.

Best Track Paper Award (Track: Data Science, Decision Analytics and Visualization), International Conference on Information Systems, 2017.

Nomination for Best Paper Award, Workshop on Information Systems and Economics, 2016.

Nomination for Best Paper Award, INFORMS Annual Meeting, 2016.

Post-doctoral Grant, Portuguese National Science Foundation (waived), 2015.

Post-doctoral Grant, Carnegie Mellon University, 2012-15.

PhD Grant, Portuguese National Science Foundation, 2007.