

# Rodrigo Belo

Professor of Information Systems  
Technology, Operations and Innovation

Nova School of Business and Economics,  
Nova University Lisbon  
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## ACADEMIC POSITIONS

- 2023-** Nova University Lisbon  
*Professor, Information Systems*  
Nova School of Business and Economics
- 2018-2022** Erasmus University  
*Associate Professor, Business Information Management*  
Rotterdam School of Management
- 2015-2018** Erasmus University  
*Assistant Professor, Business Information Management*  
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
- 2012** Technical University of Lisbon  
*Ph.D., Technological Change & Entrepreneurship*  
Instituto Superior Técnico
- 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 PUBLICATIONS

**Effects of Explicit Sponsorship Disclosure on User Engagement in Social Media Influencer Marketing** with Zike Cao  
MIS Quarterly (*accepted*)

**Incentive Misalignments in Programmatic Advertising: Evidence from a Randomized Field Experiment** with Thomas Frick and Rahul Telang  
Management Science, 2023.

**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.

## PROFESSIONAL PUBLICATIONS

**To make a profit, dating apps must leverage data differently** with Ting Li  
Harvard Business Review, 2022.

## WORKING PAPERS

**Optimal Electricity Imbalance Pricing for the Emerging Penetration of Renewable and Low-Cost Technologies** with Yashar Ghiassi, Mohammed Reza and Derek Bunn (*minor revision at Manufacturing and Service Operations Management*)

**Algorithmic Explanations and Human Decision-Making: A Randomized Field Experiment** with Charles Wan and Leid Zejnolovic

**Competition and Learning: The Impact of Gamified Competitive Structures on User Engagement in the Educational Online Platforms** with Agnieszka Kloc and Ting Li

## PAPERS IN REFEREED CONFERENCE PROCEEDINGS

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

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 SEMINAR PRESENTATIONS

“Algorithmic Explanations and Human Decision-Making: A Randomized Field Experiment”, *University of Cologne*, July 2022.

“Algorithmic Explanations and Human Decision-Making: A Randomized Field Experiment”, *Digital Economy Workshop*. Norwich, March 27-29.

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

“Referral Policies for Platform Growth: A Randomized Experiment in an Exclusive Online Dating Site”, *Universidade Nova de Lisboa*, March 2020.

“Referral Policies for Platform Growth: A Randomized Experiment in an Exclusive Online Dating Site”, *Tilburg University*, November 2019.

“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.

“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.

“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.

“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.

“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

*Network Analytics (M.S.)*, Nova School of Business and Economics, Nova University Lisbon  
Course Author and Main Instructor:

Spring 2022 - T4 (85 students)

*Marketing Analytics (M.S.)*, Nova School of Business and Economics, Nova University Lisbon  
Course Author and Main Instructor:

Spring 2021 - T4 (70 students)

*Network Data Analytics (M.S.)*, 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 (M.S.)*, 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 (M.S.)*, Spring 2016 - Block 4, Rotterdam School of Management, Erasmus University Rotterdam,

Course Author and Main Instructor (55 students).

*Python for Data Analytics (M.S.)*, Spring 2015 - Mini 4, Heinz College, Carnegie Mellon University, Course Author and Main Instructor (60 students).

*Business Research Methods (M.S.)*, 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, 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:

Ioannis Kanellopoulos (2023, expected)

Agnieszka Kloc (2024, expected)

Charles Wan (2024, expected)

Ph.D. Students, Committee Member:

Baojiang Yang (Carnegie Mellon University, 2018)

Xiaochen Zhang (Carnegie Mellon University, 2017)

Ryan Turner (Carnegie Mellon University, 2015)

## HONORS, AWARDS, & FELLOWSHIPS

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.

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