

Sandra Matz

Curriculum Vitae

Columbia Business School
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Research Interests

Big Data, Psychographic Profiling, Psychological Fit, Personality, Computer-Human Interaction

My work explores the relationships between latent psychological dimensions (e.g. personality) and large-scale records of human behavior found in the digital environment (e.g. Facebook Likes, credit card transaction). More specifically, my research focuses on the following three questions: What can Big Data tell us about the socio-psychological characteristics of individuals? What can Big Data tell us about the real-life consequences of psychological drivers? How can Big Data help individuals and businesses make better decisions?

Appointments

Since 07/2017 **Assistant Professor of Management**
Columbia Business School

Education

- 06/2017 **Ph.D. in Psychology**
University of Cambridge (UK)
- Thesis: Psychological Fit in Consumption - A Big Data Approach
 - Supervisor: Professor John Rust
- 09/2016 – 12/2016 **Visiting Researcher**
University of Texas at Austin, Department of Psychology
- Sponsor: Professor Sam Gosling
- 04/2016 - 06/2016 **Visiting Researcher**
Stanford Graduate School of Business (Management Group)
- Sponsor: Professor Michal Kosinski
- 10/2009 - 08/2013 **B.Sc. in Psychology (Distinction)**
Albert-Ludwigs-University Freiburg (Germany)
- Thesis: Tell me what you like and I tell you who you are: Development and preliminary validation of the preference-based personality questionnaire (PPQ)
- 10/2011 - 07/2012 **One-year-visiting student in Politics, Psychology and Sociology**
University of Cambridge (UK)

Publications

Refereed journal articles

- Matz, S. C.**, Kosinski, M., Nave, G., & Stillwell, D. (2017). Psychological Targeting as an Effective Approach to Digital Mass Communication. *Proceedings of the National Academy of Science*.
- Matz, S. C.**, & Netzer, O. (2017). Using Big Data as a Window Into Consumer Psychology. *Current Opinion in Behavioral Science*, 18, 7-12.
- Matz, S. C.**, Gladstone, J. J., & Stilwell, D. (2017). In the World of Big Data, Small Effects Can Still Matter: Reply to Boyce et al. *Psychological Science*, 28(4):547-550.
- Behrendt, P., **Matz, S. C.** & Goeritz, A. (2017). An integrative model of leadership behaviour. *Leadership Quarterly*, 28(1), 229-244.
- Müller, S. R., Harari, G. M., Mehrotra, A., **Matz, S. C.**, Khambatta, P., Musolesi, M., Mascolo, C., Gosling, S. D., & Rentfrow, P. J. (2017). Using human raters to characterize the psychological characteristics of GPS-based places. *Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing*, 157-160
- Matz, S. C.**, Gladstone, J. J. & Stillwell, D. (2016). Money Buys Happiness if Spending Fits our Personality. *Psychological Science*, 27(5), 715-725.
- Kosinski, M., **Matz, S. C.**, Gosling, S., Popov, V. & Stillwell, D (2015). Facebook as a Social Science Research Tool: Opportunities, Challenges, Ethical Considerations and Practical Guidelines. *American Psychologist*, 70(6), 543-56.

Manuscripts under review

- Matz, S. C.**, Segalin, C., Stillwell, D., Müller, S. R. & Bos, M. Beauty lies in the personality of the beholder: *Using computational methods to predict personal image appeal*.
- Matz, S. C.**, Menges, J., Stillwell, D. & Schwartz, A. *The rich and the poor: Income is predictable from Facebook profiles*.
- Suárez-Álvarez, J.*, **Matz, S. C.***, Gibbons, G. Popov, V., Mahalingam, V., Stillwell, D. *A parsimonious framework for measuring entrepreneurial personality across cultures and industry sectors*.
- Kulkarni, V., Kern M. L., Stillwell, D., Kosinski, M., **Matz, S. C.**, Ungar, L., Skiena, S. & Schwartz, A. *Latent Human Traits in the Language of Social Media: An Open-Vocabulary Approach*
- Ruggeri, K., Garcia-Garzon, E., Maguire, A., Huppert, F., **Matz, S. C.** *Well-being in Europe: A comprehensive measure to explore populations and profiles*.

*shared first authors

Manuscripts in preparation

- Matz, S. C.**, & Glastone, J.J. (in prep). *The financial consequences of kindness: When and Why agreeableness leads to negative financial outcomes*.
- Gladstone, J. J., **Matz, S. C.**, & Garbinsky, E. *Price Moderates the Effects of Self-Brand Congruity*.

- Matz, S. C.**, Kosinski, M., Tkalcic, M., & Gladstone, J. J. (in prep). Personality-based user similarity increases the predictive power of collaborative filtering algorithms.
- Gladstone, J. J.* & **Matz, S. C.***. You are what you buy: Predicting psychological profiles from spending records.
- Harari, G., **Matz, S. C.** & Mueller, S. R. *Personality in Space: How location choice is affected by and affects personality expressions.*
- Matz, S. C.***, & Gladstone, J. J.* Matching saving goals to individuals' psychological motivations increases savings.

*shared first authors

Book chapters

- Plohl, N., Stuhldreier, J., Ruggeri, K., & **Matz, S. C.** (in press). Chapter 10: Communications. In Ruggeri, K. (Ed.). Behavioral Insights for Evidence-Based Policy. Routledge.
- Matz, S. C.** & Hirsh, J. (2017). Marketing and Personality. In Carducci, B. J. (eds), *The Wiley Encyclopedia of Personality and Individual Differences*. John Wiley & Sons, Inc.
- Matz, S. C.** (2016). *Personality-customised advertising in the digital environment*. In C. Jansson-Boyd & M. Zawisza (eds), *International Handbook of Consumer Psychology*. Taylor & Francis.
- Matz, S. C.**, Chan, Y. & Kosinski, M. (2016). Models of Personality. In Tkalcic, Decarolis, Kosir & Odić (eds), *Emotions and Personality in Personalized Systems*. Springer
- Behrendt, P. & **Matz, S. C.** (2014). Wie Sie Probleme lösen anstatt sie zu fokussieren. In A. Ryba, D. Pauw, D. Ginati & S. Rietmann (Hrsg.), *Professionell coachen. Das Methodenbuch*: Beltz.

Conference Publications

- Matz, S. C.**, Stillwell, D., Nave, G. & Kosinski, M. (2017). *Psychological Framing in Real-Life Digital Mass Persuasion*. ACR. San Antonio, CA.
- Matz, S. C.**, Harari, G.M., Müller, S.R., Gosling, S.D. (2017). *Using experience sampling methods to study person-environment fit*. Meeting of the Society for Ambulatory Assessment, Luxembourg.
- Matz, S. C.**, Stillwell, D., Nave, G. & Kosinski, M. (2017). *Psychographic Persuasion as an Effective Approach to Digital Mass Communication*. ARP. Sacramento, CA.
- Matz, S. C.** (2017). *The benefits of personality-tailored communication*. 2nd International Convention of Psychological Science, Vienna.
- Matz, S. C.**, & Gladstone, J. (2017). *Nice Guys Finish Last: Agreeableness is Linked to Negative Financial Outcomes in Low-Income Individuals*. 18th Annual Meeting of the Society for Personality and Social Psychology, San Antonio.
- Matz, S. C.**, Gladstone, J., & Stillwell, D. (2016). *Money Buys Happiness if Spending Fits our Personality*. 18th European Conference on Personality, Timisoara (Romania).
- Matz, S. C.**, Segalin, C., Stillwell, D., & Bos, M. (2016). Using algorithms to increase the personal appeal of commercial images. 28th Annual APS Convention, Chicago.
- Matz, S. C.**, Gladstone, J., & Stillwell, D. (2016). *Money Buys Happiness if Spending Fits our Personality*. 17th Annual Meeting of the Society for Personality and Social Psychology, San Diego.

- Matz, S. C.**, Popov, V., Stillwell, D., & Kosinski, M. (2015). *Using the Big Five for personality-customised advertising on Facebook*. 16th Annual Meeting of the Society for Personality and Social Psychology, Long Beach.
- Matz, S. C.**, Chan, Y. E. F., Popov, V., Stillwell, D., & Kosinski, M. (2014). *Using Big Data in real-life online marketing: personality-targeted and tailored advertisements on Facebook*. 26th Annual APS Convention, San Francisco.

Invited Talks and Keynotes

- Matz, S. C.** (2017). The era of digital psychometrics. Berlin School of Creative Leadership, New York.
- Matz, S. C.** (2017). *Digital Happiness*. Invite Keynote at the Annual Sogeti Summit, Chicago.
- Matz, S. C.** (2017). *Big Data, Psychological Profiling and the Future of Digital Marketing*. Invited Keynote at the ADC Digital Experience, Düsseldorf.
- Matz, S. C.** (2017). *Psychographic Persuasion*. Invited Talk at the European Commission Joint Research Center, Ispra.
- Matz, S. C.** (2017). *Digital Psychometrics*. Invited Talk at the Fraunhofer-Institut for Technik und Wirtschaftsinformatik, Kaiserslautern.
- Matz, S. C.** (2017). *Digital Psychometrics and its Effects on Technology*. Invited Keynote at Apache: Big Data North America 2017, Miami.
- Matz, S. C.** (2017) *Big Data, Psychological Profiling and the Future of Digital Marketing*. Trivago Academy, Düsseldorf.
- Matz, S. C.** (2017). The Promises and Perils of Psychographic Targeting: A Look into the Future. Microsoft EXPLAIN, Berlin
- Matz, S. C.** (2017). Big Data, Psychographic Profiling, and the Future of Digital Communication. President Lecture. Berlin School of Creative Leadership, Berlin.
- Matz, S. C.** (2016). *Using Big Data and Psychological Theory in Customer-Centric Marketing*. Marketing Seminar, ESADE Business School, Barcelona.
- Matz, S. C.** (2016). *Using Big Data and Psychological Theory in Customer-Centric Marketing*. Marketing Seminar, London Business School, London.
- Matz, S. C.** (2016). *Using Big Data and Psychological Theory in Customer-Centric Marketing*. Marketing Seminar, Columbia Business School, New York.
- Matz, S. C.** (2016). *Psychology gone wild: A Big Data approach to psychological research*. Social and Personality Psychology Seminar, University of Texas, Austin.
- Matz, S. C.** (2015). *Big Data Assessment: Predicting Psychological Traits from Digital Footprints*. Keynote at the VII Brazilian Congress for Psychological Assessment, Sao Paulo.
- Matz, S. C.** (2015). *Using Big Data in personality-customised advertising*. Keynote at the DataIQ Summit, London.
- Matz, S. C.** (2014). *Using preference-based predictions of personality for customised advertising on Facebook*. Invited talk at the WWBP, University of Pennsylvania.

Selected Media Coverage

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- Selected media coverage on “Psychological Targeting as an Effective Approach to Digital Mass Persuasion” in the Guardian ([here](#)), Business Insider ([here](#)), Inc. ([here](#)), the New York Observer ([here](#)), the Digitalist ([here](#)), Psychology Today ([here](#)), the Restless CMO ([here](#)) ZDF neo (34:40 [here](#)), Motherboard ([here](#), op-ed [here](#)).
- Selected UK/US media coverage on “Money Buys Happiness When Spending Fits Our Personality” in the Telegraph ([here](#)), the Independent ([here](#)), Washington Post ([here](#)), Chicago Tribune ([here](#)), CNBC ([here](#)), the World Economic Forum ([here](#)).
- Interview with Psychology Today on “Creating Ads We’d be Glad to See” [here](#).
- Interview in ‘DIE WELT’ on the topic of “Recruitment via Facebook” [here](#).
- German TV coverage on the predictive power of Facebook Likes ([here](#) and [here](#)).

Awards and Honours

04/2016	<p>Top 30 Thinkers under 30 Pacific Standard Magazine Recognizes young men and women predicted to have a serious impact on the social, political, and economic issues</p>
02/2010 – present	<p>Full Undergraduate and Graduate scholarship German National Academic Foundation Total amount: \$115,000</p>
02/2016	<p>DatalQ Big Data 100 of 2016 Recognizes the 100 most influential data marketers in the UK</p>
09/2016	<p>Kurt Hahn Scholarship Total amount: £ 3,000 (~ \$4,500)</p>
07/2015	<p>Accenture Innovation Award (with Prof. Michal Kosinski) Total amount: \$25,000</p>
02/2015	<p>DatalQ Big Data 100 of 2015 Recognizes the 100 most influential data marketers in the UK</p>
07/2014	<p>DatalQ New Talent Award for Data Marketers under 30 Recognizes a young talent in data-driven marketing</p>

Research and Professional Experience

Since 07/2017	<p>Lead Research Scientist at Hatch</p>
06/2016 – 06/2017	<p>Research Consultant Disney Research</p> <ul style="list-style-type: none"> ▪ Analysis and presentation of large-scale behavioural data

- 04/2014 – 07/2016 **External Consultant**
 Grayling, Edelman and VisualDNA (projects worth \$200,000)
- Presentations on personality-customized online marketing
 - Implementation and evaluation of personality-customised marketing campaigns (improvement of key metrics by up to 4,000%)
 - Design and analysis of a large cross-national study on the psychology of entrepreneurs (published report accessible [here](#))
- 09/2015 – 12/2015 **Research Associate**
 Disney Research Pittsburgh
- Research in the area of personalized user experience
 - Presentation of findings to internal stakeholders
 - Summary of findings in a scientific publication
- 01/2014 – 04/2014 **Junior Psychometrician**
 University of Cambridge Psychometrics Centre
- Validation of a working memory test for Pearson Assessment
- 10/2012 – 06/2013 **Research and Project Assistant**
 Department of Work Psychology, University of Freiburg
- Video ratings of recorded project meetings
 - Statistical analysis of results
- 02/2011 – 04/2011 **Human Resource Internship**
 Novartis AG (Switzerland)
- Social media recruitment sourcing for emerging markets
 - Improving candidate experience on the Novartis website
- 04/2010 – 06/2011 **Research Assistant**
 Department of Social Psychology & Methodology, University of Freiburg

Teaching experience

Lectures and
Workshops

Theme Leader of the “Big Data” topic

Junior Researcher Programme, University of Cambridge
 Insights for Impact report [here](#).

Guest lecturer in Personality

Sutton Trust Summer School, University of Cambridge

Guest lecturer in Consumer Psychology

London Metropolitan University

Instructor of several R and Concerto courses

University of Cambridge Psychometrics Centre

Instructor of Level A/B courses in occupational test use

University of Cambridge Psychometrics Centre

Supervision	Supervision of undergraduate dissertation projects Department of Psychology, University of Cambridge
TA work	MBA class on “Big Data in Business” Judge Business School, University of Cambridge
	Replication course Social Sciences Research Methods Center, University of Cambridge
	Social Psychology lecture Department of Social Psychology & Methodology, University of Freiburg

Outside Activities

Columbia Business School requires faculty members to disclose any activities that might present a real or apparent conflict of interest.

Lead Research Scientist: Hatch

Skills

Languages	German (native speaker), English (fluent), French (basic), Italian (basic), Spanish (basic)
Programming	R (fluent), Python (basics), HTML (basics), MySQL (basics)
Survey Design	Concerto (adaptive testing platform, advanced), Qualtrics (advanced)
Data Analysis	<ul style="list-style-type: none"> ▪ Basic inferential statistics (regression, ANOVA etc.) ▪ Advanced statistical modelling methods (SEM, factor analysis, IRT, multilevel modelling) ▪ Applied machine learning techniques (SVM, OLS, LASSO, NLP)

Professional Associations

Reviewer	Psychological Science Current Opinion in the Behavioral Sciences Cyberpsychology, Behavior and Social Networking PLoS ONE Social Science Computer Review
Affiliations	Academy of Management (AOM) Association for Psychological Science (APS) Society for Personality and Social Psychology (SPSP) Association for Consumer Research (ACR)