

## Sandra Matz

### Curriculum Vitae

Columbia Business School  
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#### Research Interests

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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

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| Since 07/2020   | <b>Associate Professor of Management</b><br>Columbia Business School |
| Since 07/2017   | <b>Assistant Professor of Management</b><br>Columbia Business School |
| 04/2018-05/2018 | <b>Visiting Professor of Marketing</b><br>University College Dublin  |

#### Education

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| 06/2017            | <b>Ph.D. in Psychology</b><br>University of Cambridge (UK) <ul style="list-style-type: none"> <li>▪ Thesis: Psychological Fit in Consumption - A Big Data Approach</li> <li>▪ Supervisor: Professor John Rust</li> </ul>  |
| 09/2016 – 12/2016  | <b>Visiting Researcher</b><br>University of Texas at Austin, Department of Psychology <ul style="list-style-type: none"> <li>▪ Sponsor: Professor Sam Gosling</li> </ul>  |
| 04/2016 - 06/2016  | <b>Visiting Researcher</b><br>Stanford Graduate School of Business (Management Group) <ul style="list-style-type: none"> <li>▪ Sponsor: Professor Michal Kosinski</li> </ul>  |
| 10/2009 - 08/2013  | <b>B.Sc. in Psychology (Distinction)</b><br>Albert-Ludwigs-University Freiburg (Germany) <ul style="list-style-type: none"> <li>▪ Thesis: Tell me what you like and I tell you who you are: Development and preliminary validation of the preference-based personality questionnaire (PPQ)</li> </ul> |
| 10//2011 - 07/2012 | <b>One-year-visiting student in Politics, Psychology and Sociology</b><br>University of Cambridge (UK)  |

## Publications

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### Refereed journal articles

- Müller\*, S. R., Chen\*, X., Peters, H., Chaintreau, A. & **Matz, S. C.** (in press). Depression predictions from GPS-based mobility do not generalize well to large, demographically heterogeneous samples. *Scientific Reports*.
- Gladstone, J., **Matz, S. C.** & Garbinsky, E. (in press). Price Moderates the Effect of Self-Brand Congruity on Brand Preferences. *Social Psychology and Personality Science*.
- Stachl, C., Boyd, R. L., Horstmann, K. T., Khambatta, P., **Matz, S. C.**, & Harari, G. M. (in press). Computational Personality Assessment. *Personality Science*.
- Tovanich, N., Centellegher, S., Seghouani, N. B., Gladstone, J., Matz, S. C., & Lepri, B. (2021). Inferring psychological traits from spending categories and dynamic consumption patterns. *EPJ Data Science*, 10(1), 1-23.
- Matz, S.C.** (2021). Personal Echo Chambers: Openness-to-experience is linked to higher levels of psychological interest diversity in large-scale behavioral data. *Journal of Personality and Social Psychology*.
- Bailey\*+, E., **Matz, S. C.\***, Youyou, W. & Iyengar, S. (2020). Authentic Self-Expression on Social Media is Associated with Greater Subjective Well-Being. *Nature Communications*.
- Ruggeri, K., Garcia-Garzon, E., Maguire, A., **Matz, S. C.**, Huppert, F. (2020). Well-being in Europe: A comprehensive measure to explore populations and profiles. *Health and Quality of Life Outcomes*.
- Wertenbrock, K., [...], Matz, S. C., [...] & Zweber, Y. (2020). Autonomy in consumer choice. *Marketing Letters*.
- Goetz, F+, Ebert, T., Mueller, S. R., Gladstone, J. J. & **Matz, S. C.** (2020). Spending reflects not only who we are but also who we are around: The joint effects of individual-level and geographic personality on consumption. *Journal of Personality and Social Psychology*
- Matz, S. C.**, & Harari, G. (2020). Person-environment transactions: Mapping the relationships between Big Five personality traits, states, and daily places. *Journal of Personality and Social Psychology*
- Greenberg, D. M.\*+, **Matz, S. C.\***, Schwartz, A. & Frick, K. R. (2020). The self-congruity effect of music. *Journal of Personality and Social Psychology*.
- Mueller+, S., Peters, H., **Matz, S. C.**, Wang, W. & Harari, G. (2020). Everyday Mobility Behaviors Predict Psychological WellBeing Among Young Adults. *European Journal of Personality*.
- Hall, A+. & **Matz, S. C.** (2020). Targeting Item-Level Nuances Leads to Small but Robust Improvements in Personality Prediction from Digital Footprints. *European Journal of Personality*.
- Cerf, M, **Matz, S. C.** & Berg, A. (2020). Using Blockchain to Improve Decision Making that Benefits the Public Good. *Frontiers in Blockchain*.
- Cowgill, B., Dell'Acqua, F. & **Matz, S. C.** (2020). Algorithmic Fairness Rethoric. *American Economic Association Papers and Proceedings*
- Matz, S. C.**, Appel, R., & Kosinski, M. (2019). Privacy in the Age of Psychological Targeting. *Current Opinion in Psychology*.
- Matz, S. C.**, Menges, J. I., Stillwell, D. J. & Schwartz, H. A. (2019). Income is predictable from Facebook profiles. *PLoS ONE*.

\*shared first authors +supervised lead graduate/postdoctoral students

- Matz, S. C.**, Segalin, C., Stillwell, D., Müller, S. R. & Bos, M. (2019). Using computational methods to predict personal image appeal. *Journal of Consumer Psychology*
- Gladstone, J. J.\* & **Matz, S. C.\***, Lemaire, A. (2019). Can Psychological Traits be Inferred from Spending: Evidence from Transaction Data. *Psychological Science*, 30(7):1087-1096.
- Matz, S. C.**, & Gladstone, J.J. (2018). Nice Guys Finish Last: Why and when agreeableness is related to economic hardship. *Journal of Personality and Social Psychology*.
- Kulkarni<sup>+</sup>, V., Kern M. L., Stillwell, D., Kosinski, M., **Matz, S. C.**, Ungar, L., Skiena, S. & Schwartz, A. (2018). Latent Human Traits in the Language of Social Media: An Open-Vocabulary Approach. *PLoS ONE*.
- Matz, S. C.**, Kosinski, M., Nave, G., & Stillwell, D. (2018). Reply to Sharp et al.: Psychological targeting produces robust effects. *Proceedings of the National Academy of Science*.
- Matz, S. C.**, Kosinski, M., Nave, G., & Stillwell, D. (2018). Reply to Eckles et al.: Facebook's optimization algorithms are highly unlikely to explain the effects of psychological targeting. *Proceedings of the National Academy of Science*.
- 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<sup>+</sup>, 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*

- Ebert, T., Goetz, F., Berkessel, J. B., Wuttke, A., Jonsson T., & **Matz, S. C.** Populism thrives where people lead less successful lives: Predicting Trump votes from large-scale biographical data.
- Peters, H., Goetz, F. M., Ebert, T., Mueller, S. R. , Rentfrow, P. J., Gosling, S. D., Obschonka, M., Potter, J. & **Matz, S. C.** Regional personality predicts the spread of COVID-19 and social distancing behavior.
- Matz, S. C.**, Hyon, R., Baeck, E., Cerf, M. & Parkinson, C. Personality similarity predicts neural synchrony in fMRI and EEG data.
- Jachimowicz, J. M., Frey, E. L., **Matz, S. C.**, Jeronimus, B. F., Galinsky, A. D. More Money, less Intense Problems: Financial Scarcity is Linked to Higher Distress Variability and Reduced Well-being

\*shared first authors +supervised lead graduate/postdoctoral students

Jun, Y., Wilcox, K., & **Matz, S. C.**. Second-Order Beliefs Lower the Performance of Attractive People on Intelligence Tests.

\*shared first authors, + supervised lead graduate/postdoctoral students

### **Book chapters**

Appel, R. & **Matz, S. C.** (in press). Psychological Targeting in the Age of Big Data

**Matz, S. C.**, Rolnik, G., & Cerf, M. (2018). Solutions to the threats of digital monopolies. In Stigler Center ebook Digital Platforms and Concentration.

Plohl, N., Stuhlfreyer, J., Ruggeri, K., & **Matz, S. C.** (2018). 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.

### **Popular Press (Selected)**

**Matz, S. C.**, Appel, R. & Kosinski, M. (2019). Rethinking Privacy in the Age of Psychological Targeting. *London School of Economics Blog*

**Matz, S. C.** (2018). *Psychological microtargeting could actually save politics*. Wired.

Cerf, M., **Matz, S. C.** & Rolnik, G. (2018). There's still time to stop the tech monopoly takeover. Fortune.

Graves, C. & **Matz, S. C.** (2018). *What marketers should now about personality-based marketing*. Harvard Business Review.

Jachimowicz, J. **Matz, S. C.** & Polonski, V. (2017). *The Behavioral Scientist's Ethics Checklist*. The Behavioral Scientist.

### **Conference Publications**

**Matz, S. C.** (2019). Nice guys finish last: When and why agreeableness is associated with financial hardship. SPSP preconference, Portland.

**Matz, S. C.** (2019). Psychological framing as an affective approach to large-scale persuasive communication. SPSP, Portland.

**Matz, S. C.**, Stillwell, D., Nave, G. & Kosinski, M. (2018). *Psychological Targeting in Digital Mass Persuasion*. BDRM preconference. Boston, MA.

\*shared first authors +supervised lead graduate/postdoctoral students

- Matz, S. C.**, Stillwell, D., Nave, G. & Kosinski, M. (2018). *Psychological Targeting in Digital Mass Persuasion*. 30th Annual APS Convention. San Francisco, CA.
- Matz, S. C.**, Stillwell, D., Nave, G. & Kosinski, M. (2018). *Psychological Targeting in Digital Mass Persuasion*. AOM Big Data. Guildford, UK.
- 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

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- Matz, S. C. (2019). The future of psychological profiling. Fast Forward Forum. Venice
- Matz, S. C. (2019). What your digital footprints can reveal about you. TEDx Chicago (60k+ views)
- Matz, S. C. (2018). Using Big Data as a window into consumers' psychology. The psychology of Technology. Stanford, CA.
- Matz, S. C. (2018). Using Big Data to study individual differences and decision making in the wild. Kellogg Management & Organizations Seminar Series. Chicago, IL.
- Matz, S. C. (2018). The Future of the Digital Economy. Zurich Risk Summit, Berlin.
- Matz, S. C. (2018). The Science Behind Cambridge Analytica. USI, Paris.
- Matz, S. C. (2018). What we can learn about psychology from Big Data. University College Dublin, Blackrock.

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- 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.

## Conferences organized

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SPSP Summer Forum on Big Data in St. Louis, 2019.

## Selected Media Coverage

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- Selected media coverage on “Nice Guys Finish Last” in Forbes ([here](#)), Psychology Today ([here](#)), Inc. ([here](#)), BBC ([here](#)), Scientific American ([here](#)), Newsweek ([here](#)).
- Wired Op-ed on the potential benefits of psychological micro-targeting ([here](#)).
- Talk show im SRF (Swiss TV) on the topic of "Digital Manipulation: Do Facebook and Co. pose a threat to our democracy?" ([here](#)).

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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

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04/2021	<b>Poets and Quants 40 under 40 Best Business School Professors</b>
10/2019	<b>Capital 40 under 40</b>
08/2019	<b>World Frontiers Forum Young Pioneer</b> Harvard and MIT Initiative to unite leaders in industry, culture, and government, and science
04/2016	<b>Top 30 Thinkers under 30</b> Pacific Standard Magazine Recognizes young men and women predicted to have a serious impact on the social, political, and economic issues
02/2010 – present	<b>Full Undergraduate and Graduate scholarship</b> German National Academic Foundation Total amount: \$115,000
02/2016	<b>DatalQ Big Data 100 of 2016</b> Recognizes the 100 most influential data marketers in the UK
09/2016	<b>Kurt Hahn Scholarship</b> Total amount: £ 3,000 (~ \$4,500)
07/2015	<b>Accenture Innovation Award</b> (with Prof. Michal Kosinski) Total amount: \$25,000
02/2015	<b>DatalQ Big Data 100 of 2015</b> Recognizes the 100 most influential data marketers in the UK
07/2014	<b>DatalQ New Talent Award for Data Marketers under 30</b> Recognizes a young talent in data-driven marketing

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## Outside Activities

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

Academic Advisor: Hatch, MePrism, Pinpoint, Ready Education, ONesto

## Skills

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

## Professional Associations

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Ad-hoc Reviewer	Management Science Nature Human Behavior Journal of Personality Research Psychological Science Journal of Personality and Social Psychology European Journal of Personality Personality and Individual Differences Current Opinion in the Behavioral Sciences Cyberpsychology, Behavior and Social Networking PLoS ONE Social Science Computer Review Journal of Environmental Psychology Journal of Consumer Psychology Marketing Science
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Affiliations	Academy of Management (AOM) Association for Psychological Science (APS) Society for Personality and Social Psychology (SPSP) Association for Consumer Research (ACR)
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