

# Clemens Stachl

## Curriculum Vitae

### **Current Position:**

Postdoctoral Scholar

Department of Communication, Media and Personality Lab, Stanford University  
Building 120, Room 300-O, 450 Jane Stanford Way, Stanford, CA 94305-2050

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## **EDUCATION**

### **Post-Doctoral Programs**

since 10/2019

Department of Communication, Media and Personality Lab,  
Stanford University, CA, USA

02/2017 - 09/2019

Department of Psychology, Psychological Methods and Assessment,  
Ludwig-Maximilians-Universität München, Germany

### **Doctoral Program in Psychology and Statistics (Ph.D.)**

06/2013 - 02/2017

Ludwig-Maximilians-Universität München, Germany

Thesis: "*Differential Human Factors in User Data*"

Supervisor: Prof. Dr. Markus Bühner

Grade: 0.75 - Magna Cum Laude

### **Psychology Graduate Program (Mag.rer.nat)**

10/2006 - 10/02/2012

University of Graz, Austria

Experimental Psychology, Methodology, Cognitive Neuroscience

GPA: A/1.4 (with honors)

Thesis: "*Distance Perception in Semi-Immersive Virtual Environments*"

Grade: A/1.0

### **ISEP Student Exchange**

09/2009 – 08/2010

California State University East Bay, Hayward, CA, USA

Human Factors Engineering & Industrial Psychology

GPA: A/1.3

## RESEARCH EXPERIENCE

### Academic Research Project

*COVID19 Mobile Sensing Project - Behavior in Confinement*

Collaborators: Stanford University (Department of Communication), University of Texas at Austin (Department of Psychology, Department of Diagnostic Medicine), Ludwig-Maximilians Universität München (Department of Psychology)

since 03/2020

### Academic Research Project

*SABLE - Behavioral Sensing*

since 10/2019

Collaborators: Stanford University (Department of Communication), University of Texas at Austin (Department of Psychology)

### Academic Research Project

*Smartphone Sensing Panel*

since 08/2018

Collaborators: Stanford University (Department of Communication), Ludwig-Maximilians Universität München (Department of Psychology), Leibniz Institute for Psychology Information (ZPID)

### Applied Research Project & Consulting

*User-Centered Machine Learning*

02/2017 - 12/2019

Collaborators: Ludwig-Maximilians-Universität München, AUDI car company  
Research group lead

### Academic Research Project

*PhoneStudy Mobile Sensing Project*

since 06/2013

Collaborators: Departments of Psychology, Media Informatics, and Computational Statistics, Ludwig-Maximilians-Universität München  
Research group lead (06/2013 - 09/2019)

### Industrial Thesis (Ph.D.) & Consulting

06/2013 - 06/2016

AUDI car company, Ingolstadt, Germany

### Industrial Thesis & Consulting

11/2011 - 07/2012

AUDI car company, Ingolstadt, Germany

### Industrial Research Internship & Consulting

03/2011-09/2011

DAIMLER car company, Böblingen, Germany

# PUBLICATIONS

## Peer-Reviewed Publications

### First Author

1. **Stachl, C.**, Au, Q., Schoedel, R., Samuel. D. Gosling, Gabriella. M. Harari., Buschek, D., Völkel, S., Schuwerk, T., ... Bühner, M. (in press). *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*. Predicting Personality from Patterns of Behavior Collected with Smartphones. Preprint: <https://doi.org/10.31234/osf.io/ks4vd>
2. **Stachl, C.**, Pargent, F., Hilbert, S., Harari, G. M., Schoedel, R., Vaid, S., ... Bühner, M. (2020). Personality Research and Assessment in the Era of Machine Learning. *European Journal of Personality*, per.2257. <https://doi.org/10.1002/per.2257>
3. **Stachl, C.**, Hilbert, S., Au, J. Q., Buschek, D., De Luca, A., Bischl, B., ... Bühner, M. (2017). Personality Traits Predict Smartphone Usage. *European Journal of Personality*, 31(6), 701–722. <https://doi.org/10.1002/per.2113>
4. **Stachl, C.** & Bühner, M., (2015). Show me how you Drive and I'll Tell you who you are. Recognizing Gender Using Automotive Driving Parameters. *Procedia Manufacturing* 3: 5587–5594. <http://doi.org/10.1016/j.promfg.2015.07.743>

### Last Author

5. Schoedel, R., Pargent, F., Au, Q., Völkel, S. T., Schuwerk, T., Bühner, M., & **Stachl, C.** (2020). To Challenge the Morning Lark and the Night Owl: Using Smartphone Sensing Data to Investigate Day–Night Behaviour Patterns. *European Journal of Personality*, per.2258. <https://doi.org/10.1002/per.2258>
6. Schuwerk, T., Kaltefleiter, L. J., Au, J.-Q., Hoesl, A., & **Stachl, C.** (2019). Enter the Wild: Autistic Traits and Their Relationship to Mentalizing and Social Interaction in Everyday Life. *Journal of Autism and Developmental Disorders*, 1–16. <https://doi.org/10.1007/s10803-019-04134-6>
7. Schoedel, R., Au, Q., Völkel, S. T., Lehmann, F., Becker, D., Bühner, M., ... **Stachl, C.** (2018). Digital Footprints of Sensation Seeking. *Zeitschrift für Psychologie*, 226(4), 232–245. <http://doi.org/10.1027/2151-2604/a000342>
8. Schoedel, R., Hilbert, S., Bühner, M., & **Stachl, C.** (2018). One way to guide them all: Wayfinding strategies and the examination of gender-specific navigational instructions in a real-driving context. *Transportation Research Part F: Traffic Psychology and Behaviour*, 58, 754–768. <http://doi.org/10.1016/J.TRF.2018.06.030>

### Co-author

9. Harari, G. M., Vaid, S., Müller, S. R., **Stachl, C.**, Marrero, Z., Schoedel, R., Bühner, M., & Gosling, S. D. (in press). Personality Sensing for Theory Development and Assessment in the Digital Age. *European Journal of Personality*.
10. Völkel, S. T., Schödel, R., Buschek, D., **Stachl, C.**, Winterhalter, V., Bühner, M., & Hussmann, H. (2020). Developing a Personality Model for Speech-based Conversational Agents Using the Psycholexical Approach. *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems*, 1–14. <https://doi.org/10.1145/3313831.3376210>
11. Harari, G. M., Müller, S. R., **Stachl, C.**, Wang, R., Wang, W., Bühner, M., ... Gosling, S. D. (2019). Sensing sociability: Individual differences in young adults' conversation, calling, texting, and app use behaviors in daily life. *Journal of Personality and Social Psychology*. <https://doi.org/10.1037/pspp0000245>
12. Goerigk, S., Hilbert, S., Jobst, A., Falkai, P., Bühner, M., **Stachl, C.**, ... Sarubin, N. (2018). Predicting instructed simulation and dissimulation when screening for depressive symptoms. *European Archives of Psychiatry and Clinical Neuroscience*, 1–16. <http://doi.org/10.1007/s00406-018-0967-2>
13. Buschek, D., Völkel, S., **Stachl, C.**, Mecke, L., Prange, S., & Pfeuffer, K. (2018). Experience Sampling as Information Transmission: Perspective and Implications. In *Proceedings of the 2018 ACM International Joint Conference and 2018 International Symposium on Pervasive and Ubiquitous Computing and Wearable Computers* (pp. 606–611). ACM.

14. Völkel, S. T., Graefe, J., Schödel, R., Häuslschmid, R., **Stachl, C.**, Au, Q., & Hussmann, H. (2018). I Drive My Car and My States Drive Me. In *Proceedings of the 10th International Conference on Automotive User Interfaces and Interactive Vehicular Applications - AutomotiveUI '18* (pp. 198–203). New York, New York, USA: ACM Press. <http://doi.org/10.1145/3239092.3267102>
15. Schneider, H., Schauer, K., **Stachl, C.**, & Butz, A. (2017). Your data, your vis: Personalizing personal data visualizations. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 10515 LNCS, 374–392. [https://doi.org/10.1007/978-3-319-67687-6\\_25](https://doi.org/10.1007/978-3-319-67687-6_25)
16. Probst, P., Au, Q., Casalicchio, G., **Stachl, C.**, & Bischl, B. (2017). Multilabel classification with R package mlr. *R Journal*, 9(1).

## Book Chapters

17. Harari, G.M., **Stachl, C.**, Müller, S.R., & Gosling, S.D. (in press) Personality Sensing in Daily Life: Guidelines for Studying Personality Dynamics Using Mobile Sensors. In Rauthmann, J.F. (Ed.), *Handbook of Personality Dynamics and Processes*.
18. Völkel, S.T., Schödel, R., Buschek, D., **Stachl, C.**, Au, Q., Bischl, B., Bühner, M., & Hußmann, H. (2019). Opportunities and Challenges of Utilizing Personality Traits for Personalization in HCI: Towards a shared perspective from HCI and Psychology. To appear in Augstein, M., Herder, E., & Woerndl, W. (Eds.), *Personalized Human-Computer Interaction*. Oldenbourg: DeGruyter.

## Other Publications

19. Au, Q., **Stachl, C.**, Schoedel, R., Ullmann, T., Hofheinz, A. (2019). fextract: Feature Extraction from Grouped Data. R package version 0.9.2. <https://CRAN.R-project.org/package=fextract>
20. Au, Q., Schalk, D., Casalicchio, G., Schoedel, R., **Stachl, C.**, & Bischl, B. (2019). Component-Wise Boosting of Targets for Multi-Output Prediction. Retrieved from <http://arxiv.org/abs/1904.03943>
21. **Stachl, C.** & Bühner, M. (2018). Maschinelle Lernverfahren kontra Persönlichkeitstests. *Big Data und Persönlichkeit. Personalführung*, 51(5), 22-27
22. **Stachl, C.** (2017). Differential human factors in user data. (Doctoral Thesis, Ludwig-Maximilians-Universität München). Retrieved from <http://nbn-resolving.de/urn:nbn:de:bvb:19-205171>
23. **Stachl, C.** (2012). Distance Perception in semi-immersive virtual environments. (Master's thesis, Karl-Franzens-Universität Graz). Retrieved from <http://unipub.uni-graz.at/download/pdf/2245968>

## Invited Talks

**Stachl, C.** (04/2020). *Predicting Personality Traits from Patterns of Behavior Collected with Smartphones*. Invited talk at the Stanford Computer Science (HCI) Seminar.

**Stachl, C.** (09/2019). *More Than a Gut Feeling. The Importance of Interpretable Machine Learning for Psychological Science*. Invited talk at the Workshop for Issues in Explainable AI: Blackboxes, Recommendations, and Levels of Explanation, Saarbrücken, Germany, EU. <https://explainable-intelligent.systems/workshop/>

**Stachl, C.** (09/2019). *Smartphone-sensing as a novel method for the efficient collection of large-scale behavioral and situational data*. Invited talk at the European Conference of Developmental Psychology Big Data special event. Athens, Greece, EU

**Stachl, C.**, Schoedel, R. & Bühner, M. (03/2019). *The PhoneStudy System - Tales from Mobile Sensing Research*. Invited talk at the first workshop for mobile apps and sensors in surveys at the University of Mannheim, Mannheim, Germany, EU

**Stachl, C.** (09/2018). *The PhoneStudy Research Project*. Invited Talk at the GESIS Computational Social Science Seminar, Cologne, Germany, EU

**Stachl, C.**, (04/2017). *Log-Data Analysis with Tree Ensembles*, Invited talk at the University of Zürich, Switzerland

**Stachl, C.** (2017). *Logging with the Mind in Mind*, Invited talk at Robert Bosch AG, Leinfelden, Germany, EU

**Stachl, C.** (2014) *The Secret behind German Leadership*, Invited Talk and Panel Discussion for the Royal Danish Airforce. Munich, Germany, EU

## Talks, Symposia & Workshops

**Stachl, C.** (02/2020) *Big Data, Machine Learning and Mobile Sensing - New Directions in Personality Research*. Presentation at the Society for Personality and Social Psychology's Annual Convention (SPSP), New Orleans, LA, USA

**Stachl, C.** (09/2019). *Machine Learning for Personality Assessment*. Presentation at the DPPD2019 conference, Dresden, Germany, EU.

**Stachl, C.** (09/2019). *Digital Diagnostics - From Questions Towards Measures in Behavioral Psychology*. Acceptance speech for the Award for Digital Assessment at the DPPD2019 conference, Dresden, Germany, EU.

**Stachl, C.,** Schoedel, R., Au, Q. & Bühner, M. (02/2019). *Personality Prediction from Smartphone Data*. Presentation at the Society for Personality and Social Psychology's Annual Convention (SPSP), Portland, OR, USA

**Stachl, C.** (09/2018). *Predictions in Psychology - Behavior, Personality, Emotions, Performance, Places and Person-Culture Fit*. Symposium at the DGPS2018, Frankfurt, Germany, EU

**Stachl, C.** & Bühner, M. (09/2018). *Psychological Diagnostics in the Era of Machine Learning*. Presentation at the invited Symposium: *Big Data: The new Big Promise for research in applied psychology?* at the DGPS2018, Frankfurt, Germany, EU

**Stachl, C.** & Müller, S. R. (07/2018). *Quantified Personality: Measuring individual differences in behavior with mobile sensing*. Symposium accepted at the European Conference on Psychology, Zadar, Croatia, EU.

**Stachl, C.,** Au, J.Q., Schoedel, R., Völkel, S.T. & Bühner, M. (05/2018). *Using Smartphone Logs to Predict Individual Personality Traits*. Presentation at the Annual Convention of the Association for Psychological Science (APS), San Francisco, CA, USA

Müller, S. R. & **Stachl, C.** (05/2018). *Physical Manifestations of Psychological Characteristics: Activity Levels, Geographical Spaces, and Mobility Patterns*. Symposium at the Annual Convention of the Association for Psychological Science, San Francisco, CA, USA.

**Stachl, C.** (09/2017). *Persönlichkeit vs. Verhalten Prädiktive Modellierungsansätze in der Differentiellen Psychology*, Talk at the DPPD2017, Munich, Germany, EU

**Stachl, C.,** (04/2017). *Making Machines Understand Us*, Workshop at the Robert Bosch AG, Leinfelden, Germany, EU

**Stachl, C.,** Schödel, R., Buschek, D., Hussmann, H. & Bühner, M., (2017). *The PhoneStudy Project - Real Behavioral Data in Psychology*, Talk at DAWE17, Johannes-Kepler University, Linz, Austria, EU

**Stachl, C.** (2016). *Datenlogging Zeitgemäßes Sammeln von Verhaltensdaten in der Psychologie?*, Talk at DGPS2016, Leipzig, Germany, EU

**Stachl, C.** (2016). *Logging Studies - A Contemporary Approach to Behavioral Data collection in Psychology?*, Talk at TEAP2016, University of Heidelberg, Germany, EU

**Stachl, C.** & Bühner, M., (2015). *Show me how you drive and I'll tell you who you are. Recognizing Gender Using Automotive Driving Parameters*, Talk at AHFE2015, Las Vegas, NV, USA

**Stachl, C.,** Kaiser, J., Huber, S., von der Gönna, A., De Luca, A., Buschek D. & Bühner, M., (2015). *Exploring the Relationship of Smartphone App Usage and Narrow Personality Facets*. Poster at Psychoinformatics: Psychology meets Informatics. University of Siegen, Germany, EU

## AWARDS, GRANTS & FUNDING

### Award for Digital Assessment

09/16/2019

Awarded by the German Society for Psychological Science.

### **Initiation of an international cooperation with the University of Texas at Austin**

04/2019, Travel expenses

Funder: Bavarian Research Alliance

€ 7.106,-

### **Industry-funding for a PhD position**

02/2019, 3 years

Funder: Audi Electronics Venture/AUDI AG, under supervision of Prof. Dr. Markus Bühner

€ 345.000,-

### **LMU-excellence postdoc travel grant**

01/2019, Travel expenses for the 2019 SPSP convention, Portland, OR, USA

Funder: Ludwig-Maximilians-Universität München

€ 5.000,-

### **E-learning project**

*LMU - Live Learning in Statistics Stage 2*

08/2018, 1 year

Funder: Ludwig-Maximilians-Universität München

€ 10.600,-

### **LMU-excellence postdoc travel grant**

02/2018

Travel expenses for the 2018 APS convention in San Francisco, CA, USA

Funder: Ludwig-Maximilians-Universität München

€ 5.000,-

### **E-Learning project**

*LMU - Live Learning in Statistics*

03/2017, 1 year

Funder: Ludwig-Maximilians-Universität München

€ 25.000,-

### **Funding for an interdisciplinary research project**

*User-Centered Machine Learning*

03/2017, 3 years

Funder: AUDI AG, under supervision of Prof. Dr. Markus Bühner

€ 1.368.075,-

### **Funding for own PhD position**

06/2013, 3 years

Funder: AUDI AG

€ 279.000,-

## **REVIEWER**

### [Publons Profile](#)

- CHI
- European Journal of Personality
- Addictive Behaviors
- Personality and Individual Differences
- Behavior and Information Technology
- Mobile HCI Conference
- J — Multidisciplinary Open Access Journal
- International Journal of Selection and Assessment

## **AFFILIATION**

Member of the Society for Personality and Social Psychology (SPSP)

## TEACHING

### **Introductory Machine Learning Workshops for Psychologists**

Slides and materials: <https://osf.io/mnfbd/>

(09/2019) at the DPPD2019 conference, Dresden, Germany, EU  
(12/2018) at the University of Regensburg, Regensburg, Germany, EU  
(10/2018) at the University of Cologne, Cologne, Germany, EU  
(09/2018) at the DGPS2018 conference, Frankfurt, Germany, EU  
(09/2017) at the DPPD2017 conference, Munich, Germany, EU

### **Guest Lecture: Mobile Personality Sensing**

12/20/2019

Ludwig-Maximilians-Universität München, Germany

### **Guest Lecture: Mobile Sensing: A new hope for the investigation of individual differences in Psychology**

05/22/2018 Stanford University, CA, USA

### **Empirical Seminar in Psychology - Mobile Sensing**

10/2017 - 03/2018

Ludwig-Maximilians-Universität München, Germany

### **Course - Statistics II (Seminar)**

04/2017 - 07/2017

Ludwig-Maximilians-Universität München, Germany

### **Course - Assessment in Psychology**

10/2016 - 03/2017

Ludwig-Maximilians-Universität München, Germany

## MENTORING

### **Co-Supervised PhD Students**

since 2016 Ramona Schödel (Psychology)  
since 2017 Sarah Theres Völkel (Human-Computer-Interaction)  
since 2017 Jiew-Quay Au (Computational Statistics)  
since 2019 Timo Koch (Psychology)  
since 2019 Larissa Nina Nadine Sust (Psychology)

### **Master & Bachelor Students**

since 10/2019 Christina Bukow (Psychology)  
08/2019 Leonore Röseler (Learning Sciences)  
03/2019 Fiona Kunz (Statistics)  
02/2019 Larissa Nina Nadine Sust (Psychology)  
02/2019 Sarah Alicia Boecker (Psychology)  
08/2018 Carina Kemmer (Psychology)  
07/2018 Timo Koch (Psychology)  
02/2016 Ramona Schödel (Psychology)  
04/2016 Jiew-Quay Au (Computational Statistics)  
12/2015 Caroline Zygar (Psychology)  
08/2015 Ilona Weigand (Psychology)  
10/2015 Alexandra Dietl (Psychology and Mental Health)  
10/2015 Victoria Gebhardt (Psychology and Mental Health)  
06/2015 Jakob Wolfgang Josef Kaiser (Psychology)

## CONSULTING

since 2020 German Board for Psychological Assessment  
2011-2019 AUDI AG  
2017 Robert Bosch Power Tools

## SKILLS

### Languages

German (native), English (fluent), French (basics), Portuguese (basics)

### Software

R, R-Markdown, Git, Bash, LaTeX, SPSS, Microsoft Office/Google Docs, Adobe Photoshop, basics in: HTML/CSS

### Interests

Travel, machine learning, gardening, snowboarding, surfing, hiking

## REFERENCES

Prof. Dr. Markus Bühner  
Department of Psychology, Ludwig-Maximilians-Universität München  
[buehner@lmu.de](mailto:buehner@lmu.de)

Prof. Dr. Gabriella M. Harari  
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Prof. Dr. Samuel D. Gosling  
Department of Psychology, University of Texas at Austin  
[samg@austin.utexas.edu](mailto:samg@austin.utexas.edu)

Prof. Dr. Bernd Bischl  
Department of Statistics, Ludwig-Maximilians-Universität München  
[bernd.bischl@stat.uni-muenchen.de](mailto:bernd.bischl@stat.uni-muenchen.de)

Prof. Dr. Matthias Mehl  
Department of Psychology, University of Arizona  
[mehl@email.arizona.edu](mailto:mehl@email.arizona.edu)

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