

Tim Draws

Behavioural Data Scientist

*Web Information Systems – TU Delft
Van Mourik Broekmanweg 6
2628 XE Delft (NL)
✉ t.a.draws@tudelft.nl
timdraws.net*

Experience

- Aug 2019 – present **TU Delft, PhD Candidate.**
Working in the Web Information Systems group (led by Prof. Geert-Jan Houben) and in close cooperation with IBM. Next to research work, I review papers, assist in teaching, supervise master students, and co-organise a monthly reading and discussion group for PhDs.
- Apr 2019 – Jun 2019 **IBM Center for Advanced Studies, Research Intern.**
Conducting a research project in cooperation with a large Dutch bank. Investigating fairness in artificial intelligence systems that aim to help consumers make better financial decisions, and the impact of perceived unfairness on consumer trust.
- Jan 2017 – Mar 2019 **JASP (University of Amsterdam), Research Assistant.**
Responsible for marketing and communication, contributing educational material, and co-developing the Machine Learning Module. Supervised by Prof. Eric-Jan Wagenmakers.

Education

- 2019 – 2023 **Doctor of Philosophy (PhD), Computer Science.**
Delft University of Technology, The Netherlands
Topic: “Representing Diverse Views for Polarized Topics Online” under supervision of Dr. Nava Tintarev (TU Delft), Prof. Alessandro Bozzon (TU Delft), and Benjamin Timmermans (IBM).
- 2018 – 2019 **Master of Science (MSc), Behavioural Data Science, cum laude.**
University of Amsterdam, The Netherlands
Thesis: “An Introduction to Supervised Machine Learning for Psychology with Practical Applications in JASP” under supervision of Don van den Bergh and Prof. Eric-Jan Wagenmakers (Grade 8.5).
- 2015 – 2018 **Bachelor of Science (BSc), Psychological Methods, with distinction.**
University of Amsterdam, The Netherlands
Thesis: “Examining the Accuracy of Personality Descriptions: A Bayesian Reanalysis and Replication Study” under supervision of Alexandra Sarafoglou and Dr. Donald Robinaugh (Grade 9.5).

Teaching

- 2020, 2021 **Human-Computer Interaction**, *Course BSc Computer Science*.
Delft University of Technology
Led practical sessions as a supplement to lectures and supervised students in their group projects.
- 2018 **An Introduction to JASP and Bayesian Statistics**, *Workshop*.
University of São Paulo, Brazil
Gave an introductory workshop on Bayesian statistics and how to apply Bayesian methods in the open-source statistical software JASP.

Supervision

- 2019 - 2020 **Eva Noritsyna**, *Bachelor Honours Project*, BSc Computer Science.
Delft University of Technology
Thesis: Perspective Discovery in Controversial Debates: An Exploration of Unsupervised Topic Models.
- 2019 - 2020 **Jody Liu**, *Master's thesis*, MSc Computer Science.
Delft University of Technology
Developing a web-based demo for metrics that measure viewpoint-related ranking bias in search results.

Organisational Activities

- 2021 **Third symposium on Biases in Human Computation and Crowdsourcing (BHCC)**, *10 - 12 November 2021*.
Delft, Netherlands (Online)
Co-organising [BHCC 2021](#) as *social chair*; responsible for panel discussions and social events.
- 2021 **First Yearly Behavioural Data Science (BDS) Meetup**, *9 April 2021*.
Amsterdam, Netherlands (Online)
Co-organising the first ever yearly meetup of the Behavioural Data Science Master track at the University of Amsterdam. This event aims to be a space for current students, alumni, lecturers, and others involved in Behavioural Data Science to come together and share ideas.

Projects

- 2020 **Data Versus Corona**.
Participating in a large non-profit collaboration of scientists in The Netherlands for behavioural research related to COVID-19. Specifically, investigating which factors are most relevant in predicting desirable behaviour (e.g., social distancing) in people.

2018 **Personality Assessment by AIME.**

Building a new functionality for artificial intelligence robot *AIME* as part of a hackathon organised by Deloitte. Based on a one-minute long conversation, *AIME* would assess the users personality and provide a concise summary of it.

2012 – 2016 **Partyplan.**

Subscription-based service that provides its 22000+ members with a daily summary of all current events in their local nightlife.

2011 – Present **HNO Ratgeber.**

German-speaking YouTube channel for valid medical advice by doctors. Currently features 60 videos that have been viewed more than 2.6 Million times in total.

Technical Skills

Programming	R, Python, SQL
Visualisation	ggplot, Tableau, Shiny
Markup	HTML, CSS, Markdown, LaTeX
Other	Git, Qt, QML, WordPress, Joomla, SPSS, JASP, Excel

Conceptual Skills

Computer Science and Statistics	(Fair) Machine Learning, Bayesian Statistics, General Linear Models, Latent Variable Models, Natural Language Processing, Information Retrieval, Ranking, Cognitive Biases in Web Search
Psychology & Research	Personality Assessment, Psychometrics, Test Development, Social / Organisational / Cultural Psychology, Open Science, Academic Writing
Communication	Data Visualisation and Presentation

Languages

Native	German
Fluent	English, Dutch
Conversational	Portuguese, French

Publications

- 2021 **T. Draws**, Z. Szlávik, B. Timmermans, N. Tintarev, K. R. Varshney, and M. Hind, "Disparate Impact Diminishes Consumer Trust Even for Advantaged Users," in International Conference on Persuasive Technology, 2021. [PDF](#)
- 2020 **T. Draws**, J. Liu, and N. Tintarev, "Helping users discover perspectives: Enhancing opinion mining with joint topic models," in International Conference on Data Mining Workshops (ICDMW), 2020, p. 23–30. [doi:10.1109/ICDMW51313.2020.00013](https://doi.org/10.1109/ICDMW51313.2020.00013)
- T. Draws**, N. Tintarev, U. Gadiraju, A. Bozzon, and B. Timmermans, "Assessing Viewpoint Diversity in Search Results Using Ranking Fairness Metrics," in Informal Proceedings of the Bias and Fairness in AI Workshop at ECML-PKDD (BIAS 2020), 2020. [PDF](#)

- D. van den Bergh, J. van Doorn, M. Marsman, **T. Draws**, E. J. van Kesteren, K. Derks, F. Dablander, Q. F. Gronau, Š. Kucharský, A. R. N. Gupta, A. Sarafoglou, J. G. Voelkel, A. Stefan, A. Ly, M. Hinne, D. Matzke, and E. J. Wagenmakers, "A Tutorial on Conducting and Interpreting a Bayesian ANOVA in JASP," *Annee Psychologique*, vol. 120, iss. 1, p. 73–96, 2020. [doi:10.3917/anpsy1.201.0073](https://doi.org/10.3917/anpsy1.201.0073)
- J. van Doorn, D. van den Bergh, U. Böhm, F. Dablander, K. Derks, **T. Draws**, A. Etz, N. J. Evans, Q. F. Gronau, J. M. Haaf, M. Hinne, Š. Kucharský, A. Ly, M. Marsman, D. Matzke, A. R. N. Gupta, A. Sarafoglou, A. Stefan, J. G. Voelkel, and E. J. Wagenmakers, "The JASP guidelines for conducting and reporting a Bayesian analysis," *Psychonomic Bulletin and Review*, p. 1–14, 2020. [doi:10.3758/s13423-020-01798-5](https://doi.org/10.3758/s13423-020-01798-5)
- C. J. van Lissa, W. Stroebe, P. Leander, M. Agostini, B. Gutzkow, J. Kreienkamp, J. Belanger, **T. Draws**, A. Grygoryshyn, C. S. Vetter, and P. Collaboration, "Early Indicators of COVID-19 Infection Prevention Behaviors: Machine Learning Identifies Personal and Country-Level Factors," *PsyArxiv Preprint*, 2020.
- 2019 A. Sarafoglou, A. van der Heijden, **T. Draws**, J. Cornelisse, E. Wagenmakers, and M. Marsman, "Combine Statistical Thinking With Scientific Practice: A Protocol of a Bayesian Thesis Project For Undergraduate Students," *arXiv preprint arXiv:1810.07496*, 2019.