Dr. M. C. Kaptein

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Academic Appointments

Full professor Applied Causality　　　　　　　**October 2023 to present**, .2Fte
Technical University of Eindhoven & Eindhoven, the Netherlands.
- Full professor working at the Teaching And Research Institute for Data Science Analytics.

Associate professor Data Science　　　　**June 2022 to October 2023**, .2Fte
Tilburg University, Tilburg, the Netherlands.

- **Note:** *To continue support of my PhD students and further develop my research work next to my work as CEO of Scailable B.V.*

Full professor "Data Science & Health"　　　**August 2017 to May 2022**, .2Fte
Jheronemous Academy of Data Science, Den Bosch, the Netherlands & Tilburg University, Tilburg, the Netherlands.
- Professor by Special Appointment; Computational Personalization.

Principal Investigator　　　　　　　　　**August 2016 to May 2022**
Jheronemous Academy of Data Science, Den Bosch, the Netherlands
- Group lead of the "Computational Personalization" research group (8 PhDs, 1 PostDoc).
- Please see www.nth-iteration.com.

Assistant Professor (Tenured)　　　　**February 2016 to November 2021**, .8Fte
Statistics and Research Methods, Tilburg University, Tilburg, the Netherlands.
- Currently outsourced as a PI at JADS (see Principal Investigator above).

Assistant Professor　　　　　　　　**August 2014 to January 2016**, 1Fte
Artificial Intelligence, Radboud University, Nijmegen, the Netherlands.
Donders Centre for Cognition.
- Track leader of the Web & Language Master Track.

Assistant Professor　　　　　　　**September 2012 to August 2014**, .8Fte
Statistics and Research Methods, Tilburg University, Tilburg, the Netherlands.

Postdoctoral Researcher　　　　　**September 2011 to December 2012**, .2Fte
Aalto School of Economics, Marketing Department, Helsinki, Finland.

Distinguished MediaX Visiting Scholar　　　**2009-2011, 4-5 months a year**
Stanford University, Department of Communication, Stanford, CA, USA.
- Supervised by Prof. Clifford Nass.

PhD Student　　　　　　　　　　**September 2008 to March 2012**, 1Fte
Department of Industrial Design, Eindhoven University of Technology.
- Promotor: Prof. Emile Aarts, Co-promotors: Prof. Panos Markopoulos & Dr. Boris de Ruyter.

EDUCATION

Note: *Here I list the main educational programs I have completed as well as a short selection of courses that I have followed over the years. I have omitted conference workshops, MOOCs, and courses on topics ranging form computational complexity to finance that I have participated in in recent years.*

Stanford University, Stanford, CA, USA.

Selected coursework, September 2009 to April 2011.

- During my stay as a distinguished MediaX visiting scholar at Stanford University I have attended numerous graduate level methods and statistics courses (e.g.): *Bayesian Statistics*, *Time Series Analysis*, *Multi-level and Hierarchical Models*.

Eindhoven University of Technology, Eindhoven, the Netherlands

PhD., Industrial Design, March 2012 (**graduated *cum laude***).
- Thesis Topic: *"Personalized Persuasion in Ambient Intelligence"*.
- Promotor: Prof. Emile Aarts.
- Co-promotors: Prof. Panos Markopoulos & Dr. Boris de Ruyter
- Area of Study: Personalized persuasive communication.

PdEng., User System Interaction, September 2007.
- Thesis Topic: *"The digital workbook: Methods and applications of online contextmapping"*.
- Adviser: Prof. Panos Markopoulos.
- Area of Study: Usage of the contextmapping procedure—a participatory design method—in online environments.

University of Tilburg, Tilburg, the Netherlands

MS., Economic Psychology, June 2005.
- Thesis Topic: *"An Exploration of Fad Products and Explanations for their Unusually high Adoption Rates. "*
- Adviser: Prof. Fred van Raaij
- Area of Study: The emergence of Fads and Hypes. Quantitative analysis of factors relating to product adoption.

BS., Economic Psychology, August 2004.
- Adviser: Prof. Fred van Raaij
- Area of Study: Economic Psychology. General Psychology introduction, marketing communication, decision making.

PROFESSIONAL
EXPERIENCE &
APPOINTMENTS

Note: *I have held several appointments outside the academic world. Currently I am the CDS of Network Optix Inc.*

Network Optix Inc, Walnut Creek, CA, USA

Chief Data Scientist **January 2024 - now**
- Responsible for the Data Operations Team.
- Part of the executive team of the company.

Scailable B.V., Eindhoven, the Netherlands

Co-founder and CEO, 0.8 FTE **December 2021 - January 2024**
- Deeptech startup focussing on ML/AI deployment to edge devices. Currently 14 FTE.
- Secured $> 1.5M$ funding round from BOM and Volta Ventures. Scailable BV was acquired by Network Optix Inc. in January 2024

De Verhalenmarkt, Amsterdam, the Netherlands

Advisor to the board, scientific advisor   **December 2016 to 2020**
- Startup aimed to improve freelance journalism
- Responsible for recommendation systems and back-end technology
- Secured $> 1M$ funding round from Adessium early 2018

PersuasionAPI / Science Rockstars, Amsterdam, the Netherlands

Founder, Owner, and Chief Scientist   **October 2011 to December 2015**
- Provided an API for a set of machine learning algorithms to dynamically adapt influence strategy selection to individual customers.
- Company sold to Webpower B.V. in November 2014.

Philips Research, Eindhoven, the Netherlands

Research Scientist   **September 2008 to August 2012**
- Member of the Brain Body and Behavior Group
- Research projects in collaboration with Philips DirectLife aimed at improving the performance of their persuasive technology (the Philips Activity Monitor
- Supervisor: Dr. Boris de Ruyter

De Vos en Jansen Marktonderzoek, Nijmegen, the Netherlands

Research Development Manager   **September 2007 to September 2008**
- Responsible for the development of new standardized research methods.
- Software engineer writing the online analysis software of the company. Implementing (e.g.) linear regression and analysis of variance in PHP.
- Supervisor: Drs. Ronald Jansen

Vodafone Group R&D, Maastricht, the Netherlands

Customer Insight Specialist   **January 2007 to September 2007**
- Member of the Customer Insight Group
- Development and implementation of digital research tools

REFEREED
JOURNAL
PUBLICATIONS

Note: *I have an interdisciplinary track record. My publications are in the fields of statistics, machine learning, communication, marketing, computer science, health, and human-computer interaction (HCI). My h-index according to Google Scholar is 24, with an i10-index of 42. I have over 2760 citations. Next to my academic publications I have made numerous appearances in (international) media ranging from written contributions to* de Volkskrant *and* Wired *to appearances on (international) radio and television shows discussing my research work.*

[1] Shen, L., Visser, E., van Erning, F., Geleijnse, G., & Kaptein, M. (2024). A Two-Step Framework for Validating Causal Effect Estimates. *Pharmacoepidemiology and drug safety*, 33(9), e5873.

[2] Shen, L., van Gestel, A., Prinsen, P., Vink, G., van Erning, F. N., Geleijnse, G., & Kaptein, M. (2024). Value of Real-World Evidence for Treatment Selection: A Case Study in Colon Cancer. *JCO Clinical Cancer Informatics*, 8, e2300186.

[3] Kavelaars, X., Mulder, J., & Kaptein, M. (2024). Bayesian Multivariate Logistic Regression for Superiority and Inferiority Decision-Making under Observable Treatment Heterogeneity. *Multivariate Behavioral Research*, 1-24.

[4] Kavelaars, X., Mulder, J., & Kaptein, M. (2023). Bayesian multilevel multivariate logistic regression for superiority decision-making under observable treatment heterogeneity. *BMC Medical Research Methodology*, 23(1), 220.

[5] Hendriks, Y., Peek, S., Kaptein, M., & Bongers, I. (2022). Process and Information Needs When Searching for and Selecting Apps for Smoking Cessation: Qualitative Study Using Contextual Inquiry. *JMIR Human Factors*, 9(2), e32628.

[6] Verhaak, E., Hanssens, P., Kavelaars, X., Mulder, J., Kaptein, M., Sitskoorn, M., & Gehring, K. (2022). Interim results from CAR-Study B: An ongoing randomized trial on the effect of SRS or WBRT on cognitive performance in patients with 11-20 brain metastases. *Neuro-Oncology*, 24(Suppl 2), ii24-ii24.

[7] Kavelaars, X., Mulder, J., & Kaptein, M. (2020). Decision-making with multiple correlated binary outcomes in clinical trials. *Statistical Methods in Medical Research*, 29(11), 3265-3277.

[8] Kruijswijk, J., van Emden, R., Parvinen, P., & Kaptein, M. (2020). StreamingBandit: Experimenting with bandit policies. *Journal of Statistical Software*, 94, 1-47.

[9] Willemse, B. J. P. C., Kaptein, M. C., & Hasaart, F. (2020). Developing Effective Methods for Electronic Health Personalization: Protocol for Health Telescope, a Prospective Interventional Study. *JMIR research protocols*, 9(7), e16471.

[10] Mohammadi, R., Pratola, M., & Kaptein, M. (2020). Continuous-time birth-death MCMC for Bayesian regression tree models. *The Journal of Machine Learning Research*, 21(1), 8321-8346.

[11] Ippel, L., Kaptein, M. C., & Vermunt, J. K. (2019). Online estimation of individual-level effects using streaming shrinkage factors. *Computational Statistics & Data Analysis*, 137, 16-32.

[12] Eckles, D., & Kaptein, M. (2019). Bootstrap thompson sampling and sequential decision problems in the behavioral sciences. *Sage Open*, 9(2), 2158244019851675.

[13] Kaptein, M. (2019). A practical approach to sample size calculation for fixed populations. *Contemporary Clinical Trials Communications* 14, 100339.

[14] Ippel, L., Kaptein, M. C., & Vermunt, J. K. (2019). Estimating multilevel models on data streams. *Psychometrika* 84, 41-64.

[15] Kaptein, M. (2019). Personalization in biomedical-informatics: Methodological considerations and recommendations. *Journal of Biomedical Informatics*, 90, 103088.

[16] Parvin, P., Chessa, S., Kaptein, M., & Paternò, F. (2019). Personalized real-time anomaly detection and health feedback for older adults. *Journal of ambient intelligence and Smart Environments*, 11(5), 453-469.

[17] Streitz, N., Charitos, D., Kaptein, M., & Böhlen, M. (2019). Grand challenges for ambient intelligence and implications for design contexts and smart societies. *Journal of Ambient Intelligence and Smart Environments*, 11(1), 87-107.

[18] Kaptein, M. (2018). Customizing persuasive messages; the value of operative measures. *Journal of Consumer Marketing*, 35(2), 208-217.

[19] Kaptein, M., McFarland, R., & Parvinen, P. (2018). Automated adaptive selling. *European Journal of Marketing*, 52(5/6), 1037-1059.

[20] Kaptein, M.C., Van Emden, R. & Iannuzzi, D. (2017) Uncovering noisy social signals: using optimization methods from experimental physics to study social phenomena. *Plos ONE*

[21] Ippel, L., Kaptein, M.C. ,& Vermunt, J. (2017) Dealing with data streams: an online, row-by-row, estimation tutorial. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences*.

[22] Kaptein, M. C., Van Emden, R. & Iannuzzi, D. (2016) Tracking the decoy: Maximizing the decoy effect through sequential experimentation. *Palgrave Communications*, 2, Online first.

[23] Mohammadi, A. & Kaptein, M.C. (2016) Efficient metropolis-hastings proposal mechanisms for bayesian regression tree models comment. *Bayesian Analysis*, 11, 3, 938–940.

[24] Ippel, L., Kaptein, M.C. & Vermunt, J. (2016) Estimating random-intercept models on data streams. *Computational Statistics & Data Analysis*, 104, 169–182.

[25] Kaptein, M.C., Parvinen, P. & Poyry, E. (2015) The Danger of Engagement: Behavioral Observations of Online Community Activity and Service Spending in the Online Gaming Context. *International Journal of Electronic Commerce*.

[26] Kaptein, M.C., Markopoulos, P., de Ruyter, B. & Aarts, E. (2015). Personalizing Persuasive Technologies: Explicit and Implicit Personalization using Persuasion Profiles. *International Journal of Human Computes Studies*, 77, 38-51.

[27] Vidotto, D., Vermunt, J. & Kaptein, M.C. (2015) Multiple Imputation of Missing Categorical Data using Latent Class Models: State of Art. *Psychological Test and Assessment Modeling*.

[28] Kaptein, M.C. & Parvinen, P. (2014) Advancing E-Commerce Personalization: A Process Framework and Case Study. *International Journal of Electronic Commerce*, 19(3), 7-33.

[29] Parvinen, P., Oinas-Kukkonen, H. & Kaptein, M.C. (2014) E-selling: a new avenue of research for service design and online engagement. *Electronic Commerce, Research and Applications*, online first: http://www.sciencedirect.com.

[30] Kaptein, M.C., Markopoulos, P. & Nass, C. (2014). The effects of familiarity and similarity on compliance in social networks, *International Journal of Internet Marketing and Advertising*, 8, 222-238.

[31] Kaptein, M. C. (2014). The Use of Thompson Sampling to Increase Estimation Precision *Behavior Research Methods*, online first: http://link.springer.com/article/10.3758/s13428-014-0480-0.

[32] Kaptein, M. C. (2014). RStorm: Developing and Testing Streaming Algorithms in R *R-Journal*, 6(1), 123-132.

[33] Kaptein, M. C., Fernandez, N., Castaneda, D. & Nass, C. (2013). Extending the Similarity-Attraction Effect: The Effects of When-Similarity in Mediated Communication. *Journal of Computer-Mediated Communication*, 19(3), 342-357.

[34] Kaptein, M. C. & van Halteren, A. (2013). Adaptive Persuasive Messaging to Increase Service Retention. *Journal of Personal and Ubiquitous Computing*, 17(6), 1173-1185.

[35] Kaptein, M. C. & Duplinsky, S. (2012). Combining Multiple Influence Strategies to Increase Consumer Compliance. *International Journal of Internet Marketing and Advertising*. 8(1), 32-53.

[36] Kaptein, M. C. & Eckles, D. (2012). Heterogeneity in the Effects of Online Persuasion. *Journal of Interactive Marketing*, 26(3), 176-188.

[37] Kaptein, M. C., de Ruyter, B., Markopoulos, P. & Aarts, E. (2012). Tailored Persuasive Text Messages to Reduce Snacking. *Transactions on Interactive Intelligent Systems*, 2(2), 45-63.

[38] Kaptein, M. C., Eckles, D. & Davis, J. (2011). Envisioning Persuasion Profiles: Challenges for Public Policy and Ethical Practice. *ACM Interactions*, 18(5), 66-69.

[39] Kaptein, M. C., Markopoulos, P., Ruyter, B. & Aarts, E. (2010). Two acts of social intelligence: the effects of mimicry and social praise on the evaluation of an artificial agent. *AI & SOCIETY*, 26(3), 261-273.

[40] Kaptein, M. C., Markopoulos, P., Ruyter, B. & Aarts, E. (2009). Persuasion in ambient intelligence. *Journal of Ambient Intelligence and Humanized Computing*, 1(1), 43-56.

[41] Kaptein, M. C., Weisscher, A., Terken, J. M. B. & Nelissen, H. (2009). Online contextmapping; using the opportunities of Web 2.0 for the contextmapping procedure. *CoDesign*, 5(4), 213-228.

CONFERENCE PUBLICATIONS & BOOK CHAPTERS

[42] Provodin, D., Gajane, P., Pechenizkiy, M., & Kaptein, M. (2022, November). The impact of batch learning in stochastic linear bandits. In *2022 IEEE International Conference on Data Mining (ICDM)* (pp. 1149-1154). IEEE.

[43] Provodin, D., van den Akker, B., Katsimerou, C., Kaptein, M. C., & Pechenizkiy, M. Rethinking Knowledge Transfer in Learning Using Privileged Information. In *NeurIPS 2024 Workshop on Scientific Methods for Understanding Deep Learning*.

[44] Kruijswijk, J., van Emden, R., & Kaptein, M. (2023). Sequential Experimentation and Learning. In *Data Science for Entrepreneurship: Principles and Methods for Data Engineering, Analytics, Entrepreneurship, and the Society* (pp. 147-175). Cham: Springer International Publishing.

[45] Hampau, R. M., Kaptein, M., Van Emden, R., Rost, T., & Malavolta, I. (2022, June). An empirical study on the Performance and Energy Consumption of AI Containerization Strategies for Computer-Vision Tasks on the Edge. In *Proceedings of the International Conference on Evaluation and Assessment in Software Engineering* 2022 (pp. 50-59).

[46] Ippel, L., Kaptein, M.,& Vermunt, J. K. (2021). Analyzing data streams for social scientists. In *Handbook of Computational Social Science*, Volume 2 (pp. 71-81). Routledge.

[47] Willemse, B., Kaptein, M., Batalas, N., & Hasaart, F. (2021). Health Telescope: System Design for Longitudinal Data Collection Using Mobile Applications. In *Wireless Mobile Communication and Healthcare: 9th EAI International Conference, MobiHealth 2020*, Virtual Event, November 19, 2020, Proceedings 9 (pp. 145-165). Springer International Publishing.

[48] Kaptein, M. (2021). Experiments, Longitudinal Studies, and Sequential Experimentation: How Using "Intermediate" Results Can Help Design Experiments. In *Advances in Longitudinal HCI Research*, 121-149.

[49] Kaptein, M. (2021). The Sciences During the New Common: A Missed Opportunity?. In *The New Common: How the COVID-19 Pandemic is Transforming Society*, 111-116.

[50] Puha, Z., Kaptein, M., & Lemmens, A. (2020, November). Batch mode active learning for individual treatment effect estimation. In *2020 International Conference on Data Mining Workshops (ICDMW)* (pp. 859-866). IEEE.

[51] Kaptein, M.C., van Emden, D. & Iannuzzi, D. (2017). Lock-in and Human Behavior: Experimental Physics for the Social Sciences. In *Proceedings of Physics at Veldhoven*, poster presentation.

[52] Kaptein, M.C. (2016) Using generalized linear (mixed) models in hci. In *Modern Statistical Methods for HCI*. Springer International Publishing, pp. 251-274.

[53] Robertson, J. & Kaptein, M.C. (2016) Improving statistical practice in hci. In *Modern Statistical Methods for HCI*. Springer International Publishing, pp. 331-348.

[54] Robertson, J. & Kaptein, M.C. (2016) An introduction to modern statistical methods in hci. *In Modern Statistical Methods for HCI*. Springer International Publishing, pp. 1-14.

[55] Kaptein, M.C. & Kruijswijk, J. (2016) Streamingbandit: A platform for developing adaptive persuasive systems. In *Proceedings of the International Workshop on Personalization in Persuasive Technology (PPT16)*, Salzburg, Austria.

[56] Berkovsky, S., Kaptein, M.C. & Zancanaro, M. (2016) Adaptivity and personalization in persuasive technologies. In *Proceedings of the International Workshop on Personalization in Persuasive Technology (PPT16)*, Salzburg, Austria.

[57] Kaptein, M.C. (2016) Treatment Personalization using Bayesian Decision Theory. Poster presented at *the International Society of Bayesian Analysis 2016*.

[58] Kaptein, M.C. & Kruijswijk, J. (2016) StreamingBandit: A platform for developing adaptive persuasive systems. Poster presented at *Persuasive 2016*.

[59] Siebeling, J, van der Putten P & Kaptein, M.C. (2016) Do Warriors, Villagers, and Scientists Decide Differently? The Impact of Role on Message Framing. In *Proceedings of INTETAIN 2016*. (best paper award)

[60] Kaptein, M.C. & Iannuzzi, D. (2015) Lock in Feedback for stochastic optimization. In *proceedings of Benelearn 2015*.

[61] Kaptein, M.C. (2015) Formalizing Customization in Persuasive Technologies. In *proceedings of Persuasive 2015*.

[62] Kaptein, M.C. & Parvinen, P. (2014), Real-Time Adaptation of Influence Strategies in Online Selling. *proceedings of the 2014 47th Hawaii International Conference on System Sciences* (HICSS) pp.3100-3109

[63] Kaptein, M.C. (2013). Latent Class Models in Marketing: Trading off Classification Certainty and Costs of Data Collection. *Abstract accepted at IFCS 2013*.

[64] Parvinen, P. & Kaptein, M.C. (2013). Theory vs. Data-Driven Learning in Future E-Commerce *In the proceedings of HICSS 2013*.

[65] Kaptein, M.C., Nass, C., Parvinen, P. & Markopoulos, P. (2013). Nice to Know You: Familiarity and Influence in Social Networks. *In the proceedings of HICSS 2013*.

[66] Kaptein, M.C. & Parvinen, P. (2012). Dynamically Adapting Sales Influence Tactics in E-Commerce. *Proceedings of the 2012 Academy of Marketing Science Annual Conference* .

[67] Kaptein, M.C. & Parvinen, P. (2012). Sequential Learning of Optimal Sales Prices. *Proceedings of the 2012 Academy of Marketing Science Annual Conference* .

[68] Lindholm, J., Kaptein, M.C. & Parvinen, P. (2012). The Price of Customer Engagement: How Substitution in Online Services Leads to Decreasing Revenues *Proceedings of the 2012 Academy of Marketing Science Annual Conference* .

[69] Kaptein, M. C. & Robertson, J. (2012). Rethinking Statistical Methods for HCI. In *Proceedings of the 2011 annual conference on Human factors in computing systems, CHI 212*.

[70] Zwinderman, M.J., Shirzad, A., Ma, X., Bajracharya, P., Sandberg, H. & Kaptein, M.C. (2012) Phone row: a smartphone game designed to persuade people to engage in moderate-intensity physical activity. in *Proceedings of the 7th international conference on Persuasive Technology*.

[71] Sakai, R., Peteghem, S. van, Sande, L. van de, Banach, P. & Kaptein, M. C. (2011). Personalized Persuasion in Ambient Intelligence: the APStairs System. In *Proceedings of Ambient Intelligence (AmI) 2011*. Amsterdam.

[72] Lindholm, J., Kaptein, M. C. & Parvinen, P. (2012). The Trade-off between Online Community Activity and Consumption. In *Proceedings of HICSS 2012*. Hawaii.

[73] Kaptein, M. C. (2011). Adaptive Persuasive Messages in an E-commerce Setting: The use of Persuasion Profiles. In *Proceedings of ECIS 2011*. Helsinki.

[74] Kaptein, M. C., & Eckles, D. (2011). Magnitude and Structure of Heterogeneity in the Effects of Influence Strategies. In *Proceedings of Persuasive Technology 2011*. Ohio.

[75] Kaptein, M. C., Duplinsky, S. & Markopoulos, P. (2011). Means based adaptive persuasive systems. In *Proceedings of the 2011 annual conference on Human factors in computing systems (pp. 335-344)*. New York, NY, USA: ACM.

[76] Kaptein, M. C., Lacroix, J. & Saini, P. (2010). Individual Differences in Persuadability in the Health Promotion Domain. In T. Ploug, P. Hasle, & H. Oinas-Kukkonen (Eds.), *Persuasive Technology (pp. 94-105)*. Springer Berlin / Heidelberg. (best paper award)

[77] Kaptein, M. C. & Eckles, D. (2010). Selecting Effective Means to Any End: Futures and Ethics of Persuasion Profiling. In T. Ploug, P. Hasle, & H. Oinas-Kukkonen (Eds.), *Persuasive Technology (pp. 82-93)*. Springer Berlin / Heidelberg.

[78] Scherini, T., Melo, P., van Craenendonck, T., Zou, W. & Kaptein, M. C. (2010). Enhancing the sleeping quality of partners living apart. In *Proceedings of the 8th ACM Conference on Designing Interactive Systems - DIS 2010* (pp. 171-179). New York, New York, USA: ACM Press.

[79] Kaptein, M. C., Nass, C. & Markopoulos, P. (2010). Powerful and consistent analysis of likert-type ratingscales. In *Proceedings of the 28th international conference on Human factors in computing systems - CHI 2010* (pp. 2391-2401). New York, New York, USA: ACM Press.

[80] Kaptein, M. C., de Ruyter, B., Markopoulos, P. & Aarts, E. H. L. (2009). Simple Ways to Make Friends. In *Proceedings of the 8th International Workshop on Social Intelligence*.

[81] Kaptein, M. C., de Ruyter, B., Markopoulos, P. & Aarts, E. (2009). Measuring the Subjective User Experience. In *Proceedings of the 12th IFIP TC 13 International Conference - INTERACT* (pp. 944-945).

[82] Kaptein, M. C., de Ruyter, B., Markopoulos, P. & Aarts, E. (2009). Persuading you: Individual differences in susceptibility to persuasion. In *Proceedings of the 12th IFIP TC 13 International Conference - INTERACT* (pp. 24-28). Uppsala, Sweden: ACM Press.

[83] Soute, I., Kaptein, M. C. & Markopoulos, P. (2009). Evaluating outdoor play for children. In In *Proceedings of the Proceedings of the 8th International Conference on Interaction Design and Children - IDC 2009* (p. 250). New York, New York, USA: ACM Press.

[84] Kaptein, M. C., Slegers, K., Nelissen, H., Weisscher, A. & Terken, J. M. B. (2007). The Digital Workbook: Using Web 2.0 for Generative Research Purposes. In *Proceedings of MobileHCI 2007*.

[85] Al Mahmud, A., Kaptein, M. C., Moran, O., Van De Garde-Perik, E. & Markopoulos, P. (2007). Understanding Compliance to Privacy Guidelines Using Text-and Video-Based Scenarios. In *Proceedings of HumanComputer Interaction INTERACT 2007* (pp. 156-168). Springer Berlin / Heidelberg.

[86] Romero, N., Szóstek, A. M., Kaptein, M. C. & Markopoulos, P. (2007). Behaviours and Preferences when Coordinating Mediated Interruptions : Social and System influence. In *Proceedings of CSCW 2007* (pp. 123-132). Kluwer Press.

PATENTS

[87] Kaptein, M.C., & van Emden, R. (2023). Deployment of Machine Learned Models to a Plurality of Devices. U.S. Patent Application.

[88] Van Halteren, A. T., Lacroix, J. P. W., Geleijnse, G., Pijl, M. J., Saini, P. K., Kaptein, M.C., Ferron, J.L.G. & Holmes, R. (2013). Coaching system that builds coaching messages for physical activity promotion. U.S. Patent Application 14/056,152.

BOOKS

[89] Kaptein, M.C. & van den Heuvel, E. (2022) *Statistics for Data Scientists.* Springer, Berlin-Heidelberg.

[90] Kaptein, M.C. (2019) *Hallo Wereld, Hallo Computer.* Business Contact, Amsterdam.

[91] Kaptein, M.C. & Robertson, J. (2016) *Modern Statistical Methods for Human Computer Interaction.* Springer, Berlin-Heidelberg.

[92] Kaptein, M.C. (2012). *Digitale Verleiding: Hoe beinvloedingsprofielen de online marketing op z'n kop zetten.* Business Contact, Amsterdam, the Netherlands.

MISCELLANEOUS

[93] Kaptein, M.C. (2018). *Computational Personalization; Data science methods for personalized health.* Inaugural address at the University of Tilburg.

[94] Kaptein, M.C. (2012). *Personalized Persuasion in Ambient Intelligence.* PhD. thesis at the Eindhoven University of Technology.

[95] Kaptein, M.C. (2007). *The Digital Workbook: Methods and Applications of Online Contextmapping.* PdEng. thesis at the Eindhoven University of Technology

[96] Kaptein, M.C. (2005). *An Exploration of Fad Products and Explanations for their Unusually high Adoption Rates.* Master Thesis at the University of Tilburg.

GRANTS

Note: *Throughout my career I have been active in applying for grants. I have been successful numerous times, both in larger consortia, as well as by myself. Throughout the course of my career I have secured over 3M in funding. Below I list participation in successful grant applications.*

RAAK-Pro / CHANGE Grant
Co-Applicant in grant application "Competitive Heavy-vehicles using Ai to create Next Generation Efficiency"
By Scailable BV in 2023 (100k).

WeCare research funding
Applicant in grant application "Modeling causal effects using blood values time series"
By ETZ Tilburg in 2022 (250k).

NWO Zwaartekracht
Co-application in grant application "ALGOSOC; Public Values in the Algorithmic Society"
By NWO in 2022 (18M).

TiU UniversiteitsFonds
Grant to support a Post doc project in joint supervision with Prof. Dr. Inge Bongers: "AI in Serious gaming ter verbetering van zelfbewustzijn bij chronische lage rugpijn."
By the University of Tilburg, 2018 (300k).

NWO Research Talent
Grant to support a PhD project in joint supervision with dr. Joris Mulder: "Making the most of clinical trials: Increasing efficiency using novel Bayesian methods for information sharing within and between trials. "
By the NWO, 2018 (300k).

Special appointment chair funding
Funding for my CZ financed professor by special appointment chair, including 1 PhD student. By CZ Health Insurance, 2017 (2M).

TiU Data Science PhD grant
Grant to support a PhD project in joint supervision with dr. Aurelie Lemmens: "Churn and sequential decision making."
By the University of Tilburg, 2017 (300k).

ERC writing grant
Grant to support writing ERC starting grant application
By the University of Tilburg, 2016 (15k).

FOM Valorisation grant
Grant for work on Lock-in Amplification.
PI: Prof. Dr. Davide Iannuzzi (VU, Amsterdam). July 2015 (40k).

Donders Centre for Cognition Student Assistant Grant
Grant for a student assistant for software development. November 2014 (5k).

K2, Tekes Strategic Research initiative
(PI: Petri Parvinen)
Contributed to writing the proposal. Proposal funded my Post Doc position (487k).

Aalto visiting Scholar Travel Grant
"Excellent visitors grant", February 2012.
Visit to Aalto University school of Economics to lecture on the topic of persuasion profiling (25k).

Philips / Stanford Media X scholarship grant
Partly funded my PhD project
Awarded by Philips research 2009 (100k).

INTERNATIONAL ACTIVITIES

Note: *Throughout my academic career I have studied, worked, and collaborated abroad. Here I single out a number of my visits abroad as well as my positions abroad.*

July 2020: **Collaboration with prof. dr. Dean Eckles**
Sloan School of Management, MIT, Cambridge, USA. Worked on estimating causal effects in networks.

Mar-Jun 2018: **Visited by prof. dr. Matthew Pratola**
Ohio State, Ohio, USA. Worked on paper called: Continuous-time BD-MCMC for Regression Trees.

Aug 2017: Visited prof. dr. Dean Eckles
Sloan School of Management, MIT, Cambridge, USA. Worked on bootstrap Thompson sampling.

Feb-Dec 2015: Collaboration with prof. dr. Judy Robertson
University of Edinburgh, UK. Working on book Modern Statistical Methods for HCI. Occasional visits / meetings.

May 2015: Visited dr. Evan Karapanos
Madeira Interactive Technologies Institute, Portugal. Work on persuasive technologies.

Jun 2014: Visited Facebook Core Data Science team
Palo Alto, CA, USA.

2012-2013: Worked as a Post-doc at the Aalto school of economics
Aalto school of economics, Helsinki, Finland.

2010-2012: Distinguished visiting researcher at the CHIMe lab of Prof Clifford Nass
Stanford University (Stanford, CA, USA)

TEACHING
EXPERIENCE

Note: *Ever since 2003, when I first started as a student assistant supporting statistics and research method courses at Tilburg University, I have been an active teacher. I have taught large scale course (> 300 students), I have independently developed several new courses at both the Bachelor, Master and PhD level. Additionally, I have won several awards for my teaching (best teacher award 2014 and 2017). I have also been active in teaching innovations (e.g., "flip the classroom) and I have published a book based on the lecture notes for one of my courses. I hold a BKO. My teaching benefits from, since 2012, being a professional speaker for* the Next Speaker *making over 20 public appearances each year.*

- Modeling   September 2018 to 2021
    Role: Responsible lecturer.
    Course content: Statistical methods, modeling, inference.
    Location: JADS Den Bosch.
    Additional comments: *I developed this course from scratch for the pre-master program at JADS. I actively experimented with "flip-the-classroom" concept and I used video lectures.*

- Data Mining   September 2016 to January 2017
    Role: (co-) Responsible lecturer.
    Course content: Data mining & machine learning methods.
    Location: Tilburg University & Eindhoven University of Technology.
    Additional comments: *Together with Joaquin Verschoren I developed this Bachelor course from scratch. The course was well-evaluated, and we received an "outstanding teacher" award.*

- Data Challenge   September 2016 to January 2017
    Role: (co-) Responsible lecturer.
    Course content: Interactive course for mining Twitter data.
    Location: Tilburg University & Eindhoven University of Technology.
    Additional comments: *This innovative, group-work, course was developed from scratch by Dirk Fahland and myself for the Bachelor Data Science. The course was well-evaluated, and we received an "outstanding teacher" award.*

- Data Statistics   September 2016 to 2020
    Role: (co-) Responsible lecturer.
    Course content: Statistics and modeling introduction.
    Location: Tilburg University & Eindhoven University of Technology.

Additional comments: *I developed this course from scratch together with Edwin van den Heuvel for the Bachelor Data Science. The lecture notes will be published as a book ("Statistics for Data Scientists") by Springer in 2019.*

- AI at a Webscale   August 2014 to February 2016
    Role: Responsible lecturer
    Course content: Machine learning methods, Reinforcement learning, dealing with large datasets.
    Location: Radboud University, Nijmegen.
    Additional comments: *I developed this Master-level course from scratch. The course was very well evaluated:* 8.5 *out of* 10.

- Multi-level models for categorical data   September 2012 to August 2014
    Role: Responsible lecturer
    Course content: Multi-level modeling.
    Location: Tilburg University.
    Additional comments: *This Research Master-level course was an intense, 8 week, course with a small group of students and was well-evaluated.*

- Analysis and Construction of Questionnaires   September 2012 to August 2014
    Role: Responsible lecturer
    Course content: Questionnaire design and analysis.
    Location: Tilburg University.
    Additional comments: *I taught this Bachelor level course to over* 300 *students. The course was well-evaluated (*4.3 *out of* 5*), and served to obtain my BKO.*

- Persuasive Technology   August 2011 to September 2016
    Role: Responsible lecturer
    Course content: Persuasive technology and UX design
    Location: Eindhoven University of Technology.
    Additional comments: *This week long, intensive course (full-time) ran several years within the PdEng. program User-System Interaction.*

- Sales Management   From October 2011 to April 2013
    Role: Lecturer / instructor
    Course content: Sales management and online selling
    Location: Aalto school of economics, Helsinki, Finland.

- Quantitative Analysis Methods   April 2007 to August 2010
    Role: Responsible lecturer
    Course content: Data analysis and applied usage of SPSS
    Location: Eindhoven University of Technology.
    Additional comments: *This course was part of the PdEng. program User-System Interaction.*

- Statistics and Research Methods (various)   August 2003 to August 2005
    Role: Student assistant / TA
    Course content: Various statistical methods courses.
    Location: Tilburg University.

STUDENT SUPERVISION

Note: *Throughout my academic career I have actively, and successfully, supervised a large number of students. I have supervised over* 10 *BSc. student (at Stanford, Tilburg, Nijmegen), and over* 20 *MSc. students (Tilburg, Nijmegen, JADS). Of these, two students graduated cum laude. I have successfully completed the supervision of three PhD students, and I currently supervise* 7 *students in my lab.*

Adriana Ricklin,
    Ph.D. Student working on multi-objective multi-armed bandit optimization in e-commerce. *Ongoing.*

Chenyan Huang,
Ph.D. Student working on prediction models for pre-term birth.
Ongoing.

Isabel van den Heuvel,
Ph.D. Student working on Spatial Temporal Modeling.
Ongoing.

Danil Provodin,
Ph.D. Student sequential experimentation and reinforcement learning. In progress. Defense expected Summer 2025.

Ylva Hendriks MSc.,
Ph.D. Student eHealth adoption. TiU IMPACT grant. Preliminary thesis title: *"e-Health adoption and personalization"*. In progress. Defense expected Summer 2025.
Ylva has conducted two empirical studies concerning the choice process of eHealth applications.

Hongyi Chen MSc.
Ph.D. Student on Bayesian model averaging for causal inference. JADS Ph.D. Defense expected December 2023.
Hongyi has successfully submitted is nearing the submission of three articles all related to Bayesian causal discovery methods.

Zoltan Puha MSc.,
Ph.D. Student churn prediction and sequential learning. TiU DSc/t grant. Defense expected December 2023.
Zoltan has successfully published his work in conferences and journals and is writing the final chapter of his thesis.

Bas Willemse MSc.,
Ph.D. Student eHealth effectiveness and personalization. CZ funding. Preliminary thesis title: *"The health telescope: data science methods for studying e-Health effectiveness"*. In progress. Defense planned December 2023.
Bas has completed his three journal papers and is writing the final chapter of his thesis.

Lingjie Shen MSc.
Ph.D. Student on personalized treatment allocation in oncology. CSC grant. Defense expected November 2023.
Lingjie actively collaborates with IKNL and is nearing the completion of her third manuscript after submitting a software package to CRAN.

Xynthia Kavelaars MSc.,
Ph.D Student on Bayesian adaptive trials. NWO Talent Grant. Manuscript accepted, defense June 2023.
Xynthia currently has finished her thesis manuscript on Bayesian adaptive trials with multiple outcome measures.

Jules Kruijswijk MSc.,
Ph.D. Student Sequential decision making. TiU Ph.D. Preliminary thesis title: *"Hierarchical, dependent, and nested bandit problems"*. Graduated September 2020.
Jules has succesfully defended his thesis including publications in high-ranking journals such as the Journal of Statistical Software.

Lianne Ippel MSc.,
Ph.D. Student Research Methods and Statistics. TiU Ph.D. Thesis *"Online Estimation of Treatment Heterogeneity"*. Graduated September 2017.
Lianne successfully defended her Ph.D. and published four articles based on her dissertation in various, high-impact journals (e.g., Psychometrika, Computational Statistics and Data Analysis).

PROFESSIONAL
SERVICES

Note: *I have always been active within the academic community: I have been an associate editor for two journals and multiple special issues, and I am a frequent reviewers. Also, I have organized / contributed to organizing various conferences and workshops. Here I provide a selection of my activities.*

Editorial Services (Selected)
− Associate editor for Behaviour & Information Technology (TBIT). 2017 - 2020.
− Associate editor for Electronic Commerce Research and Applications (ECRA). 2016 - 2019.

Referee Services (Selected)
− *the Journal of Machine Learning Research*
− *Psychological Methods*
− *International Journal of Electronic Commerce*
− *Communications in Statistics*
− *International Conference System Sciences (HICSS).*
− *Journal of Interactive Marketing.*
− *British Journal of Mathematical Psychology.*
− *International Conference on Human Computer Interaction (CHI).*
− *International Conference on Persuasive Technology (Persuasive).*
− *Transaction on Interactive Intelligent Systems.*
− *Personal and Ubiquitous Computing.*

Organizing committee member for Persuasive 2016,2017,2019
− Workshop chair.
− Chair of session on Modeling and Methods.

Organizing committee member for HICSS 2015,2016,2017
− Workshop & session chair.

AWARDS

Note: *Throughout my career I have been the recipient of a number of awards honoring my scientific work.*

2016: Best Paper Award at Intetain 2016
• For paper entitled: *"Do Warriors, Villagers, and Scientists Decide Differently? The Impact of Role on Message Framing"*. With Broekhuijsen, M. & van der Putten, P.

2013: Outstanding Doctoral Research Award at BCSI 2013
• For paper entitled: *"Pricing new Products with Pay-What-You-Want"*. Together with Poyry, E. & Parvinen, P.

2013: Best Doctoral Thesis TU/e (Industrial Design) 2012
• Best doctoral thesis: *"Personalised Persuasion in Ambient Intelligence."*

2010: Best Paper Award Persuasive 2010
• Best paper award for the paper entitled: *"Individual Differences in Persuadability in the Health Promotion Domain"*

2005: Unilever Research Prize 2005
• Best master thesis 2005 for the thesis *"An Exploration of Fad Products and Explanations for their Unusually high Adoption Rates."*

REFERENCES

References available upon request.

CONTACT

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