

CURRENT
POSITIONS

Imperial College London, United Kingdom
Associate Professor of Applied Mathematics and Computer Science (UK: Senior Lecturer), 2020-now
Assistant Professor (UK: Lecturer), 2017-2020

Head of the Computational Privacy Group, Dept. of Computing
Director of the Algorithmic Society Lab, Data Science Institute

European Commission, Brussels, Belgium
Special Adviser on AI, Privacy, and Data Protection to Commissioner Reynders (Justice), 2020-2021

Belgian Data Protection Authority, Brussels, Belgium
Parliament-appointed member, 2019-2024

PREVIOUS
POSITIONS

European Commission, Brussels, Belgium
Special Adviser to Commissioner Vestager (Competition), 2018-2019

Massachusetts Institute of Technology, Cambridge, MA
Research Affiliate, *Media Lab*, 2017-2019
Research Scientist, *Media Lab*, 2016-2017
Post-doctoral researcher, *Media Lab*, 2015-2016

Harvard University, Cambridge, MA
Post-doctoral researcher, *Harvard IQSS and Computer Science*, 2015-2016
Supervision: Latanya Sweeney, Gary King

The Boston Consulting Group, Boston, MA
Intern, Strategic Analytics (now BCG Gamma), Summer 2014

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA
Ph.D., *Media Lab*, 2010-2015
Thesis: “Computational Privacy: Towards Privacy-Conscientious Uses of Metadata”
Committee: Alex (Sandy) Pentland (Advisor), Gary King, and Alessandro Acquisti

Université catholique de Louvain, Belgium
M.Sc. in Applied Mathematics, 2007-2009
Major in Discrete mathematics and Computer Science
Thesis: “Stability in society: Parameters for the persistence of social network”
Advisors: Vincent D. Blondel and Nathan Eagle
Visiting researcher at the Santa Fe Institute, NM

Katholieke Universiteit Leuven, Belgium
M.Sc. Mathematical Engineering, 2007-2009

École Centrale Paris, France
Centralien (M.Sc.), 2005-2007

Université catholique de Louvain, Louvain-La-Neuve, Belgium
B.Sc. in engineering, 2003-2006

PUBLICATIONS

Total number of citations: 4500+, H-index: 21
<http://scholar.google.com/citations?user=LVJtdoEAAAAAJhl=en>

JOURNAL PAPERS

[15] de Montjoye, Y.-A., Ramadorai, T., Valletti, T. and Walther, A., 2020. Privacy, adoption, and truthful reporting: A simple theory of contact tracing applications. **Economics Letters**, 198, p.109676.

[14] Rocher, L., Hendrickx, J.M. and de Montjoye, Y.-A., 2019. Estimating the success of re-identifications in incomplete datasets using generative models. **Nature Communications**, 10(1), p.3069.

[13] Mulders D., de Bodt C., Bjelland J., Pentland A. S., Verleysen M., de Montjoye Y.-A., 2019. Inference of node attributes from social network assortativity. **Neural Computing and Applications**, pp.1-21.

[12] de Montjoye Y.-A., Gambs S., Blondel Y., Canright G., de Cordes N., Deletaille S., Engø-Monsen K., Garcia-Herranz M., Kendall J., Kerry C., Krings G., Letouze E., Luengo-Oroz M., Oliver N., Rocher L., Rutherford A., Smoreda Z., Steele J., Wetter E., Pentland A., Bengtsson L., 2018. On the privacy-conscientious use of mobile phone data. **Nature SData**, 5.

[11] Kondor, D., Hashemian, B., de Montjoye, Y.-A and Ratti, C., 2018. Towards matching user mobility traces in large-scale datasets. **IEEE Transactions on Big Data**

[10] Taquet, M., Quoidbach, J., de Montjoye, Y.-A. Desseilles, M. and Gross, J.J., 2016. Hedonism and the choice of everyday activities. **Proceedings of the National Academy of Sciences**, 113(35)

[9] Jahani, E., Sundsøy, P., Bjelland, J., Bengtsson, L. and de Montjoye, Y.-A., 2017. Improving official statistics in emerging markets using machine learning and mobile phone data. **EPJ Data Science**, 6(1)

[8] Steele, J.E., Sundsøy, P.R., Pezzulo, C., Alegana, V.A., Bird, T.J., Blumenstock, J., Bjelland, J., Engø-Monsen, K., de Montjoye, Y.-A., Iqbal, A.M. and Hadiuzzaman, K.N., 2017. Mapping poverty using mobile phone and satellite data. **Journal of The Royal Society Interface**, 14(127), p.20160690.

[7] de Montjoye, Y.-A., Rocher, L. and Pentland, A.S., 2016. bandicoot: A python toolbox for mobile phone metadata. **Journal of Machine Learning Research**, 17, pp.1-5.

[6] de Montjoye Y.-A., Radaelli, L. and Singh, V.K., 2015. Unique in the shopping mall: On the reidentifiability of credit card metadata. **Science**, 347(6221), pp.536-539.

[5] de Montjoye, Y.-A., Stopczynski, A., Shmueli, E., Pentland, A. and Lehmann, S., 2014. The strength of the strongest ties in collaborative problem solving. **Nature SRep**, 4, p.5277.

[4] de Montjoye, Y.-A., Shmueli, E., Wang, S.S. and Pentland, A.S., 2014. openpds: Protecting the privacy of metadata through safeanswers. **PloS ONE**, 9(7), p.e98790.

[3] Taquet, M., Quoidbach, J., de Montjoye, Y.-A. and Desseilles, M., 2014. Mapping collective emotions to make sense of collective behavior. **Behavioral and Brain Sci-**

ences, 37(1), pp.102-103.

[2] de Montjoye Y.-A., Hidalgo, C.A., Verleysen, M. and Blondel, V.D., 2013. Unique in the crowd: The privacy bounds of human mobility. **Nature S.Rep.**, 3, p.1376.

[1] Good, B.H., de Montjoye, Y.-A. and Clauset, A., 2010. Performance of modularity maximization in practical contexts. **Physical Review E**, 81(4), p.046106.

CONFERENCES
AND WORKSHOPS
PAPERS

[10] Gadotti, A.*, Houssiau, F.*, Rocher, L.*, Livshits, B., and de Montjoye, Y.-A., 2019. When the signal is in the noise: The limits of Diffix's sticky noise. 28th USENIX Security Symposium **USENIX Security** (oral presentation)

[9] Jain, S., Bensaid, E. and de Montjoye, Y.-A., 2019. UNVEIL: Capture and Visualise WiFi Data Leverages. In The World Wide Web Conference (**WWW**) (pp. 3550-3554). ACM.

[8] Schellekens, V., Chatalic, A., Houssiau, F., de Montjoye, Y.-A., Jacques, L. and Griboval, R., 2019, May. Differentially Private Compressive K-means. IEEE International Conference on Acoustics, Speech and Signal Processing (**ICASSP**) (pp. 7933-7937)

[7] Felbo, B., Sundsøy, P., Lehmann, S. and de Montjoye, Y.-A., 2017. Modeling the Temporal Nature of Human Behavior for Demographics Prediction. European Conference on Machine Learning and Principles and Practice of Knowledge Discovery (**ECML-PKDD**) (pp. 140-152). Springer.

[6] Mulders, D., De Bodt, C., Bjelland, J., Pentland, A.S., Verleysen, M. and de Montjoye, Y.-A., 2017. Improving individual predictions using social networks assortativity. International Workshop on Self-Organizing Maps and Learning Vector Quantization, Clustering and Data Visualization (**WSOM+**)

[5] Sundsøy, P., Bjelland, J., Iqbal, A.M. and de Montjoye, Y.-A., 2014. Big data-driven marketing: how machine learning outperforms marketers' gut-feeling. International Conference on Social Computing, Behavioral-Cultural Modeling, and Prediction (**SBP**) (pp. 367-374). Springer, Cham.

[4] de Montjoye, Y.-A.*, Quoidbach, J.*, Robic, F.* and Pentland, A.S.*, 2013, April. Predicting personality using novel mobile phone-based metrics. International conference on social computing, behavioral-cultural modeling, and prediction (**SBP**) (pp. 48-55). Springer, Berlin, Heidelberg.

[3] de Montjoye, Y.-A., Wang, S.S. and Pentland A., 2012. On the Trusted Use of Large-Scale Personal Data. **IEEE Data Eng. Bull.** 35(4), pp.5-8.

[2] de Montjoye, Y.-A., Haria, J., Cebrian, M. and Pentland, A., 2011, October. The Need for Champions for Approximate Social Search. **IEEE SocialCom** (pp. 231-234). IEEE.

[1] Eagle, N., de Montjoye, Y.-A. and Bettencourt, L.M.A., 2009, Community computing: Comparisons between rural and urban societies using mobile phone data. **IEEE SocialCom** (Vol. 4, pp. 144-150). IEEE.

- BOOK CHAPTERS Toole, J. L., de Montjoye, Y.-A., González, M.C. and Pentland, A.S., 2015. Modeling and understanding intrinsic characteristics of human mobility. *Social Phenomena: From Data to Models* (pp. 15-35). Springer, Cham.
- POLICY & OPINIONS de Montjoye, Y.A. and Taquet, M., 2019. Anonymity takes more than protecting personal details. *Nature*, 574, p.176.
- Crémer J.*, de Montjoye Y.-A.* and Schweitzer H.*, 2019. Competition Policy for the digital era. Report to EC Competition Commissioner Vestager.
- de Montjoye Y.-A., Farzanehfar A., Hendrickx J. and Rocher L., Solving Artificial Intelligence’s Privacy Problem. Facts Reports (Special Issue 17 pp.80-83) and Data Science Institute White Paper, February 2018
- de Montjoye, Y.A., Pentland A.S. 2015. Assessing data intrusion threats—Response. *Science*, 348(6231), pp.195-195.
- Member of the expert committee, Privacy by design in big data: An overview of privacy enhancing technologies in the era of big data analytics. European Union Agency for Network and Information Security (ENISA) report, December 2015, ISBN 978-92-9204-160-1
- de Montjoye Y.-A., Kendall J., Kerry C. F., Enabling Humanitarian Use of Mobile Phone Data. *Issues in Technology Innovation*, Brookings Center for Technology Innovation. (2014)
- de Montjoye Y.-A., Hidalgo C. A., Pentland A., Il est temps de parler des métadonnées, *Le Monde*, June 27, 2013
- Hidalgo C. A., de Montjoye Y.-A., Pentland A., Solution to NSA overreach - put people in charge of their own data, *The Christian Science Monitor*, June 11, 2013
- BLOGPOSTS de Montjoye, Y.-A., Houssiau, F., Gadotti, A. and Guepin, F., 2020. Evaluating COVID-19 contact tracing apps? Here are 8 privacy questions we think you should ask.
- de Montjoye, Y.-A. and Houssiau, F., 2020. Can we fight COVID-19 without resorting to mass surveillance?.
- Gadotti, A., Houssiau, F., Rocher, L. and de Montjoye, Y.-A., 2018. When the signal is in the noise: Exploiting Aircloak’s Diffix anonymization mechanism.
- de Montjoye, Y.-A., Houssiau, F., Sapiezzyński, P. and Radaelli, L., 2018. Cambridge Analytica is only the beginning and you might have your friends to blame for it.
- OTHERS Radaelli, L., Sapiezynski, P., Houssiau, F., Shmueli, E. and de Montjoye, Y.-A., 2019. Quantifying Surveillance in the Networked Age: Node-based Intrusions and Group Privacy. arXiv preprint arXiv:1803.09007.
- Salah, A.A., Pentland, A., Lepri, B., Letouzé, E., Vinck, P., de Montjoye, Y.-A., Dong, X. and Dağdelen, Ö., 2018. Data for Refugees: The D4R Challenge on Mobility of

Syrian Refugees in Turkey.

de Montjoye, Y.-A., Smoreda, Z., Trinquart, R., Ziemlicki, C. and Blondel, V.D., 2014. D4D-Senegal: the second mobile phone data for development challenge.

AWARDS AND
COMMITTEES

Concurrence 2020 Antitrust Writing Awards (for Competition Policy for the digital era w/ Jacques Crémer and Heike Schweitzer)
Member of the World Economic Forum's Data for Common Purpose Initiative (DCPI)
The [Imperial College] President's Awards for Excellence in Research, 2019
Member of the jury for the CNIL/INRIA award for research on privacy protection, 2016, 2017, 2018, 2019
Honorable Mention in the UN Global Pulse's Data For Climate Challenge, 2017
Member of the IEEE Global Initiative for Ethical Considerations in Artificial Intelligence and Autonomous Systems, 2015-2018
Member of the World Economic Forum network on AI, IoT and the Future of Trust, 2016
Member of the OECD Advisory Group on Health Data Governance, 2015
Innovators under 35 for Belgium (TR35), 2015
Amazon Graduate Research Symposium (declined), 2014
MIT-Imperial Global Fellow, 2013
MIT Harold Horowitz Award, 2012
Fellow of the B.A.E.F. foundation (Firmin van Brée Fellow), 2010

ORGANIZING
COMMITTEE

NetMob'19: Conference on the Analysis of Mobile Phone Datasets and Networks
D4R-Turkey'18: The Data for refugees challenge
OECD'17 workshop on mobile technology-based services for global health and wellness
D4D-Senegal'14: The Mobile Phone Data for Development Challenge
NetMob'15: [Co-Chair] Conference on the Analysis of Mobile Phone Datasets and Networks
SocialD'13: [Co-Chair] A conversation on Social Dynamics at NetSci
NetMob'13: Conference on the Analysis of Mobile Phone Datasets and Networks
NetMob'11: Conference on the Analysis of Mobile Phone Datasets and Networks

PROGRAM
COMMITTEE

FCC'19: Future Cities Challenge by Foursquare
Complex Networks'18: International Conference on Complex Networks and Their Applications
Data Natives'18, 19: Data Natives UK Conference
WWW'16, 18: World Wide Web Conference
AAAI'18: AAAI Conference on Artificial Intelligence
DTL Award Grants'17: Data Transparency Lab Award Grants
IC2S2'17: International Conference on Computational Social Science
CSCML'17: International Symposium on Cyber Security Cryptography and Machine Learning
Data for Policy'16, 17: Frontiers of Data Science for Government
Infer'16: International Workshop on Inference & Privacy in a Hyperconnected World
IWPE'16, 17: Workshop on Privacy Engineering
SBP(-BRiMS)'14, 15, 16, 17: Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction
WSDM'15: Conference on Web Search and Data Mining
PrInf'15: Workshop on Privacy and Inference

Wearable-S&P'15: Workshop on Wearable Security and Privacy
SocialCom'12, 13, 14, 15: IEEE Conference on Social Computing
PriSecCSN'12, 13, 14 Symposium on Privacy and Security in Cloud and Social Networks
Telco'14: Workshop for Telco Data-driven Innovations
WCPR' 14: Workshop on Computational Personality Recognition (ACM Multimedia).
SocInfo'13: Conference on Social Informatics
SPSN'11, 12: Workshop on Security and Privacy in Social Networks
SocInfo'10, 11, 12: Conference on Social Informatics
ICWSM'11: Workshop on the Social Mobile Web

RECENT INVITED TALKS 10/2020 [French] Conseil d'État - Colloque sur la gouvernance et régulation des données (Invited Speaker)
 09/2020 Statistical Inference for Network Models symposium @ NetSci2020 (Invited Speaker) 12/2019 CRA Annual Conference, Antitrust in Times of Upheaval (Invited speaker)
 11/2019 TPDF 2019 - Theory and Practice of Differential Privacy (Invited speaker)
 10/2019 Maastricht University Law Tech Lab (Keynote speaker)
 05/2019 Mentor Group - Brussels Forum (Invited speaker)
 01/2019 Shaping competition policy in the era of digitisation, European Commission (Panel chair)
 10/2018 BITP's 25th year (Keynote speaker)
 05/2018 InfoSecurity (Keynote speaker)
 01/2018 Royal Academies for Science and the Arts of Belgium (Invited Speaker)

PHD STUDENTS **Ana-Maria Cretu**, Adversarial machine learning, 2018-
 Shubham Jain, Fairness in algorithmic decision-making, 2018-
 Axel Oehmichen, Privacy-preserving data processing platforms, 2017-
 Andrea Gadotti, Attacks on privacy-preserving systems, 2017-
 Florimond Houssiau, On the robustness of noise addition mechanisms for privacy, 2017-
 Arnaud Tournier, Biometrics for big data, 2017-
 Ali Farzanehfar, Privacy of high-dimensional datasets, 2016-
 Luc Rocher, Anonymization in the 21st Century: A Critical Examination of De-identification for Modern Large-Scale Data, 2015-2019 (co-supervised with Julien Hendrickx at UCLouvain)