

Rebekah Overdorf, Ph.D.

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Professional Research Experience

- 09/2022 – ... ♦ **Assistant Professor.** University of Lausanne (UNIL).
11/2018 – 07/2022 ♦ **Postdoctoral Researcher.** École polytechnique fédérale de Lausanne.
11/2017 – 11/2018 ♦ **Postdoctoral Researcher.** KU Leuven.
09/2012 – 11/2017 ♦ **Researcher Assistant.** Drexel University.

Education

- 2017 ♦ **Ph.D. Computer Science**, Drexel University, Philadelphia, PA, USA.
Thesis: *Bridging Distinct Domains in Privacy Related Learning Problems*
Supervisor: Rachel Greenstadt
2015 ♦ **M.Sc. Computer Science**, Drexel University, Philadelphia, PA, USA.
2012 ♦ **B.Sc. (With Honors) Computer Science, Mathematics**, Moravian College, Bethlehem, PA, USA.

Funding

Grants

Advancing the intersection of Artificial Intelligence & Digital Forensics

Swiss National Science Foundation (SNSF) Project

Total Amount: 941'440 CHF

My share: 470'720 CHF

Duration: 48 Months

Expected Start Date: Spring 2025

Joint project with the Prof. Frank Breitingner (UNIL) to address the challenges that AI poses to the field of digital forensics.

Harmful Information Against Humanitarian Organizations (2021/2022)

Science And Technology For Humanitarian Action Challenges (HAC).

Total Amount: 269'257 CHF

Responsible for the application as postdoc, project funding for group of Karl Aberer

Joint project with the ICRC to address the challenges of measuring online attacks against humanitarian organizations.

Framing Analysis of Online Discourse of Returning Foreign Fighters and their Families (2020).

Programme Collaborative Research on Science and Society (CROSS)

Total Amount: 60'000 CHF

Responsible for the application as postdoc, project funding for group of Karl Aberer

Duration: 12 Months

Joint project with Research Group on Elections and Political Citizenship, Institute of Social Sciences, University of Lausanne

Identified key arguments in the public discourse on returning foreign fighters in Europe by combining data science and social science expertise.

Funding (continued)

Fellowship	Information Controls Fellow (2019/2020). Open Tech Fund (Radio Free Asia) Total Amount: 50'400 USD Duration: 12 Months Partnership with Civil Initiative on Internet Policy (Bishkek, Kyrgyzstan) Worked with online social networking data in Central Asia to identify fake accounts, identify the propaganda and disinformation they spread, monitor and assess their activities, understand their effect on the overall network.
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Academic Service

Conference Chairship

Vice-Chair	Privacy Enhancing Technologies Symposium (PETS) — 2024, 2025
Publicity	Privacy Enhancing Technologies Symposium (PETS) 2019 — 2022
Co-chair	
Workshop	Hot Topics in Privacy Enhancing Technologies (HotPETS) 2022, 2023
Co-chair	Privacy and Ethics in Eye Tracking (PrEThics) 2022

Program Committee Membership

2025	USENIX Security*
2024	Workshop on Attackers and Cyber-Crime Operations (WACCO) Symposium on Electronic Crime Research (eCrime)
2023	USENIX Security* The Web Conference (WWW)* Symposium on Electronic Crime Research (eCrime) Privacy Enhancing Technologies Symposium (PETS)
2022	USENIX Security* Symposium on Electronic Crime Research (eCrime) Workshop on Attackers and Cyber-Crime Operations (WACCO) Workshop on the Economics of Information Security (WEIS)
2021	USENIX Security* European Symposium on Research in Computer Security Symposium on Electronic Crime Research (eCrime) Privacy Enhancing Technologies Symposium (PETS) Workshop on Attackers and Cyber-Crime Operations (WACCO)
2020	Privacy Enhancing Technologies Symposium (PETS) Workshop on Attackers and Cyber-Crime Operations (WACCO) Symposium on Electronic Crime Research (eCrime) Workshop on Privacy in the Electronic Society (WPES) Workshop on Artificial Intelligence and Security (AISec)
2019	Privacy Enhancing Technologies Symposium (PETS) Workshop on Attackers and Cyber-Crime Operations (WACCO) Workshop on Artificial Intelligence and Security (AISec) Security and AI Networking Conference (ScAINet)

Academic Service (continued)

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Committees

- Thesis Hannes Spichiger, *The Evaluation of Mobile Device Evidence under Person-Level, Location-Focused Propositions*. 2022.
- Other ESC Doctoral Program Commission. 2023, 2024

Teaching

Thesis Supervision

- PhD Jasmin Wyss (2022-), Daan Wintermans (co-advised) (2022-), Quentin Bonny (co-advised) (2022-)

Courses Given

- Fall '23-'24 Internet Investigations
- Spring '24 Machine Learning for Forensic Science
- Spring '23-'24 Seminar: Cybercrime and Abuse Online

Awards

- Best Paper Award Finalist* Conference on Computer and Communications Security, 2018
- Caspar Bowden PET award runner-up*, 2018
- HotPETs Best Talk Award*, Privacy Enhancing Technologies Symposium 2019
- HotPETs Best Talk Award*, Privacy Enhancing Technologies Symposium 2018

Research Output

Conference/Journal Papers

- 1 Breitingner, F., Hilgert, J.-N., Hargreaves, C., Sheppard, J., **Overdorf, R.**, & Scanlon, M. (2024). [DFRWS EU 10-Year Review and Future Directions in Digital Forensic Research](#). *Forensic Science International: Digital Investigation*.
- 2 Elmas, T., **Overdorf, R.**, & Aberer, K. (2023). [Misleading repurposing on twitter](#). *Proceedings of the International AAAI Conference on Web and Social Media (ICWSM'23)*.
- 3 Gressel, C., **Overdorf, R.**, Hagenstedt, I., Karaboga, M., Lurtz, H., Raschke, M., & Bulling, A. (2023). [Privacy-Aware Eye Tracking: Challenges and Future Directions](#). *IEEE Pervasive Computing*.
- 4 Elmas, T., Ibanez, T. R., Hutter, A., **Overdorf, R.**, & Aberer, K. (2022). [WayPop Machine: A Wayback Machine to Investigate Popularity and Root Out Trolls](#) [short paper]. *Foundations of Open Source Intelligence and Security Informatics*.
- 5 Elmas, T., **Overdorf, R.**, & Aberer, K. (2022). [Characterizing Retweet Bots: The Case of Black Market Accounts](#). *Proceedings of the International AAAI Conference on Web and Social Media*.
- 6 Elmas, T., **Overdorf, R.**, & Aberer, K. (2021b). [A Dataset of State-Censored Tweets](#) [dataset paper]. *Proceedings of the Fifteenth International AAAI Conference on Web and Social Media, ICWSM 2021*.
- 7 Elmas, T., **Overdorf, R.**, Özkalay, A. F., & Aberer, K. (2021). [Ephemeral Astroturfing Attacks: The Case of Fake Twitter Trends](#). *IEEE European Symposium on Security and Privacy, EuroS&P*.
- 8 Kulynych, B., **Overdorf, R.**, Troncoso, C., & Gürses, S. F. (2020). [POTs: protective optimization technologies](#). *FAT* '20: Conference on Fairness, Accountability, and Transparency*.
- 9 Dauber, E., **Overdorf, R.**, & Greenstadt, R. (2017). [Stylometric authorship Attribution of Collaborative Documents](#). *Cyber Security Cryptography and Machine Learning, (CSCML)*.
- 10 **Overdorf, R.**, Juárez, M., Acar, G., Greenstadt, R., & Díaz, C. (2017). [How Unique is Your .onion?: An Analysis of the Fingerprintability of Tor Onion Services](#) [Best Paper Award Finalist, 2018 Caspar Bowden PET award runner-up]. *ACM SIGSAC Conference on Computer and Communications Security, CCS*.
- 11 **Overdorf, R.**, & Greenstadt, R. (2016). [Blogs, Twitter Feeds, and Reddit Comments: Cross-domain authorship Attribution](#). *Proceedings on Privacy Enhancing Technologies (PoPETs)*.
- 12 Garg, V., Afroz, S., **Overdorf, R.**, & Greenstadt, R. (2015). [Computer-Supported Cooperative Crime](#) [short paper]. *Financial Cryptography and Data Security (FC)*.
- 13 Stolerma, A., **Overdorf, R.**, Afroz, S., & Greenstadt, R. (2014). [Breaking the Closed-World Assumption in Stylometric authorship Attribution](#). *Advances in Digital Forensics X (IFIP WG)*.
- 14 **Overdorf, R.**, & Lang, M. (2011). [Reaching out to aid in retention: empowering undergraduate women](#). *ACM Technical Symposium on Computer science Education (SIGCSE)*.

Preprints Under Review

- 1 Kireev, K., Mykhno, Y., Troncoso, C., & **Overdorf, R.** (2024). [Characterizing and Detecting Propaganda-Spreading Accounts on Telegram](#). *arXiv preprint arXiv:2406.08084*.

Workshop Papers, etc.

- 1 Elmas, T., **Overdorf, R.**, & Aberer, K. (2021a). [Tactical Reframing of Online Disinformation Campaigns Against The Istanbul Convention](#). *Workshop on Data for the Wellbeing of Most Vulnerable (ICWSM Workshop)*.

- ② Elmas, T., Hardi, K., **Overdorf, R.**, & Aberer, K. (2020). [Can Celebrities Burst Your Bubble?](#) *Innovative Ideas in Data Science (The Web Conference Workshop)*.
- ③ Schwartz, C., & **Overdorf, R.** (2020). [Disinformation from the Inside: Combining Machine Learning and Journalism to Investigate Sockpuppet Campaigns](#). *CyberSafety (The Web Conference Workshopp)*.
- ④ **Overdorf, R.**, Kulynych, B., & Gürses, S. (2019). A guide to revolutionary counter-optimization. *Internet Freedom Festival (IFF)*.
- ⑤ Schwartz, C., & **Overdorf, R.** (2019). [Subtle Censorship via Adversarial Fakeness in Kyrgyzstan](#) [HotPETs Best Talk Award]. *In Workshop on Hot Topics in Privacy Enhancing Technologies (HotPETs)*.
- ⑥ Gürses, S., **Overdorf, R.**, & Balsa, E. (2018). [POTs: The revolution will not be optimized?](#) [HotPETs Best Talk Award]. *Workshop on Hot Topics in Privacy Enhancing Technologies (HotPETs)*.
- ⑦ **Overdorf, R.**, Kulynych, B., Balsa, E., Troncoso, C., & Gürses, S. (2018). [Questioning the assumptions behind fairness solutions](#). *Critiquing and Correcting Trends in Machine Learning (NeurIPS Workshop)*.
- ⑧ **Overdorf, R.**, Dutko, T., & Greenstadt, R. (2014). [Blogs and Twitter Feeds: A Stylometric Environmental Impact Study](#). *Workshop on Hot Topics in Privacy Enhancing Technologies (HotPETs)*.
- ⑨ **Overdorf, R.**, Islam, A. C., & Greenstadt, R. (2014). [Source Code and Cross Domain Stylometry. Role of Stylometry in Privacy](#). *Chaos Communication Congress (CCC)*.