

# Rebekah Overdorf, Ph.D.

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## Professional Research Experience

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- 03/2025 – ... ♦ **W2 Professor** Ruhr University Bochum & RC Trust  
*Chair for Security and Trustworthiness of Online Information*
- 09/2022 – 01/2025 ♦ **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

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- 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

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- 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)

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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.

## Academic Service

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### 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)

## Academic Service (continued)

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Security and AI Networking Conference (ScAINet)

### 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

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### 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

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*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

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### Conference/Journal Papers

- 1 Kireev, K., Mykhno, Y., Troncoso, C., & **Overdorf, R.** (2025a). [A Telegram Dataset of Propaganda and its Moderation](#) [dataset paper]. *Proceedings of the Nineteenth International AAAI Conference on Web and Social Media, ICWSM 2025*.
- 2 Kireev, K., Mykhno, Y., Troncoso, C., & **Overdorf, R.** (2025b). [Characterizing and Detecting Propaganda-Spreading Accounts on Telegram](#). *34th USENIX Security Symposium (USENIX Security 25)*.
- 3 Breiting, 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*.
- 4 Elmas, T., **Overdorf, R.**, & Aberer, K. (2023). [Misleading repurposing on twitter](#). *Proceedings of the International AAAI Conference on Web and Social Media (ICWSM'23)*.
- 5 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*.
- 6 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*.
- 7 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*.
- 8 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*.
- 9 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*.
- 10 Kulynych, B., **Overdorf, R.**, Troncoso, C., & Gürses, S. F. (2020). [POTs: protective optimization technologies](#). *FAT\* '20: Conference on Fairness, Accountability, and Transparency*.
- 11 Dauber, E., **Overdorf, R.**, & Greenstadt, R. (2017). [Stylometric authorship Attribution of Collaborative Documents](#). *Cyber Security Cryptography and Machine Learning, (CSCML)*.
- 12 **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*.
- 13 **Overdorf, R.**, & Greenstadt, R. (2016). [Blogs, Twitter Feeds, and Reddit Comments: Cross-domain authorship Attribution](#). *Proceedings on Privacy Enhancing Technologies (PoPETs)*.
- 14 Garg, V., Afroz, S., **Overdorf, R.**, & Greenstadt, R. (2015). [Computer-Supported Cooperative Crime](#) [short paper]. *Financial Cryptography and Data Security (FC)*.
- 15 Stoleran, A., **Overdorf, R.**, Afroz, S., & Greenstadt, R. (2014). [Breaking the Closed-World Assumption in Stylometric authorship Attribution](#). *Advances in Digital Forensics X (IFIP WG)*.
- 16 **Overdorf, R.**, & Lang, M. (2011). [Reaching out to aid in retention: empowering undergraduate women](#). *ACM Technical Symposium on Computer science Education (SIGCSE)*.

### 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)*.