

# Jan Tolsdorf

DR. RER. NAT. (EQUIVALENT TO PH.D.) · HE/HIM

Bochum, Germany

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**Research interests:** human-centered privacy & security, trustworthy AI, human factors research

## Education

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### Ph.D. in Computer Science (Dr. rer. nat., summa cum laude)

07/2019 - 08/2022

Göttingen, Germany

GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

Advisors: Professors Dr.-Ing. Delphine Reinhardt and Dr.-Ing. Luigi Lo Iacono

### M.Sc. in Media Technology

09/2016 - 01/2019

Cologne, Germany

TECHNISCHE HOCHSCHULE KÖLN UNIVERSITY OF APPLIED SCIENCES

Thesis Advisors: Professors Dr.-Ing. Luigi Lo Iacono and Dr.-Ing. Matthew Smith

### B.Sc. in Media Technology

09/2012 - 08/2016

Cologne, Germany

TECHNISCHE HOCHSCHULE KÖLN UNIVERSITY OF APPLIED SCIENCES

Thesis Advisors: Professors Dr.-Ing. Luigi Lo Iacono and Dr.-Ing. Arnulph Fuhrmann

## Professional Experience

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### Postdoctoral Researcher

11/2025 - present

Bochum, Germany

MAX PLANCK INSTITUTE FOR SECURITY AND PRIVACY (MPI-SP)

Security and Privacy Engineering Lab (SPRING)

Supervisor: Prof. Carmela Troncoso, Ph.D.

### Postdoctoral Associate (AI Fellow)

02/2024 - 09/2025

Washington D.C., USA

THE GEORGE WASHINGTON UNIVERSITY

Institute for Trustworthy AI in Law & Society

Department of Computer Science

Supervisor: Prof. Adam J. Aviv, Ph.D.

### Part-Time Faculty

08/2024 - 12/2024

Washington D.C., USA

THE GEORGE WASHINGTON UNIVERSITY

Department of Computer Science

### External Lecturer

03/2023 - 09/2023

Sankt Augustin, Germany

HOCHSCHULE BONN-RHEIN-SIEG UNIVERSITY OF APPLIED SCIENCES

Institute for Cyber Security & Privacy

Department of Computer Science

### Research Associate

06/2020 - 02/2024

Sankt Augustin, Germany

HOCHSCHULE BONN-RHEIN-SIEG UNIVERSITY OF APPLIED SCIENCES

Institute for Cyber Security & Privacy

Department of Computer Science

Supervisor: Prof. Dr.-Ing. Luigi Lo Iacono

**Research Associate**

TECHNISCHE HOCHSCHULE KÖLN UNIVERSITY OF APPLIED SCIENCES

Institute for Media and Photo Technology

Faculty of Information, Media, and Electrical Engineering

Supervisor: Prof. Dr.-Ing. Luigi Lo Iacono

03/2018 - 05/2020

Cologne, Germany

**Student Assistant**

G&amp;L GEIßENDÖRFER UND LESCHINSKY GMBH

Team Software Development

12/2015 - 02/2018

Cologne, Germany

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**Publications**

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**PEER-REVIEWED RESEARCH ARTICLES**

- [INPROGRESSa] Arwa Alshadi, Wellington Esposito Barbosa, Joseph Staller, Adam J. Aviv, and **Jan Tolsdorf**. "Do Users' Cookie Consent Preferences Align With Their Real World Cookie Consent Choices?" In: *In progress*. 2025.
- [INPROGRESSb] David Langer, **Jan Tolsdorf**, and Luigi Lo Iacono. "Development of the Psychometric Information Security Awareness Scale for Health Care Organizations (ISA-HCO): An Analysis of Enablers and Barriers to Information Security in Hospitals in Germany". In: *In progress*. 2025.
- [SUBMISSION] **Jan Tolsdorf**, Monica Kodwani, Alan F. Luo, Junho Eum, Mahmood Sharif, Michelle L. Mazurek, and Adam J. Aviv. "Perceptions and Exposures of Bias in AI Conversational Agents: Exploring Trust, Fairness, and Risk". In: *under submission*. 2025.
- [IWPE 25] Florian Dehling, **Jan Tolsdorf**, and Luigi Lo Iacono. "Right Here, Right Now: User Perceptions of In-Place Contextual Privacy Options". In: *International Workshop on Privacy Engineering (IWPE)*. 2025.
- [CCS 25] **Jan Tolsdorf**, David Langer, and Luigi Lo Iacono. "Phishing Susceptibility and the (In-)Effectiveness of Common Anti-Phishing Interventions in a Large University Hospital". In: *Proceedings of the 2025 ACM SIGSAC Conference on Computer and Communications Security (CCS)*. 2025.
- [ConPro 25] **Jan Tolsdorf**, Alan F. Luo, Monica Kodwani, Junho Eum, Mahmood Sharif, Michelle L. Mazurek, and Adam J. Aviv. "On a Scale of 1 to 5, How Reliable Are AI User Studies? A Call for Developing Validated, Meaningful Scales and Metrics about User Perceptions of AI Systems". In: *IEEE SPW Workshop on Technology and Consumer Protection (ConPro)*. 2025.
- [SOUPS 25] **Jan Tolsdorf**, Alan F. Luo, Monica Kodwani, Junho Eum, Mahmood Sharif, Michelle L. Mazurek, and Adam J. Aviv. "Safety Perceptions of Generative AI Conversational Agents: Uncovering Perceptual Differences in Trust, Risk, and Fairness". In: *Proceedings of the 21st Symposium on Usable Privacy and Security (SOUPS)*. 2025.
- [PETS 24] Florian Dehling, **Jan Tolsdorf**, Hannes Federrath, and Luigi Lo Iacono. "Internet Users' Willingness to Disclose Biometric Data for Continuous Online Account Protection: An Empirical Investigation". In: *Proceedings on Privacy Enhancing Technologies (PoPETs) 2024.2* (2024).
- [HCICPT 24] **Jan Tolsdorf** and Luigi Lo Iacono. "Expert Perspectives on Information Security Awareness Programs in Medical Care Institutions in Germany". In: *Proceedings of the 6th International Conference on HCI for Cybersecurity, Privacy and Trust (HCI-CPT)*. 2024.
- [BIT 22] **Jan Tolsdorf**, Florian Dehling, and Luigi Lo Iacono. "Data Cart – Designing a Tool for the GDPR-compliant Handling of Personal Data by Employees". In: *Behaviour & Information Technology (BIT) 41.10* (2022). IF: 3.7.
- [PETS 22] **Jan Tolsdorf**, Delphine Reinhardt, and Luigi Lo Iacono. "Employees' privacy perceptions: exploring the dimensionality and antecedents of personal data sensitivity and willingness to disclose". In: *Proceedings on Privacy Enhancing Technologies (PoPETs) 2022.2* (2022).
- [SPOSE 22] Stephan Wiefeling, **Jan Tolsdorf**, and Luigi Lo Iacono. "Data Protection Officers' Perspectives on Privacy Challenges in Digital Ecosystems". In: *Proceedings of the 4th Workshop on Security, Privacy, Organizations, and Systems Engineering (SPOSE)*. 2022.

- [TrustBus 21] Florian Dehling, Denis Feth, Svenja Polst, Bianca Steffes, and **Jan Tolsdorf**. "Components and Architecture for the Implementation of Technology-driven Employee Data Protection". In: *Proceedings of the 18th International Conference on Trust, Privacy and Security in Digital Business (TrustBus)*. 2021.
- [DuD 21b] Svenja Polst, **Jan Tolsdorf**, Florian Dehling, and Denis Feth. "Verarbeitung von Beschäftigtendaten". In: *Datenschutz und Datensicherheit (DuD)* 45.1 (2021).
- [DuD 21a] **Jan Tolsdorf**, Florian Dehling, and Denis Feth. "Benutzerfreundlicher Datenschutz in Cloud-basierten Office-Paketen". In: *Datenschutz und Datensicherheit (DuD)* 45.1 (2021).
- [PETS 21] **Jan Tolsdorf**, Florian Dehling, Delphine Reinhardt, and Luigi Lo Iacono. "Exploring mental models of the right to informational self-determination of office workers in Germany". In: *Proceedings on Privacy Enhancing Technologies (PoPETs) 2021.3* (2021).
- [APF 21] **Jan Tolsdorf**, Michael Fischer, and Luigi Lo Iacono. "A Case Study on the Implementation of the Right of Access in Privacy Dashboards". In: *Proceedings of the 9th Annual Privacy Forum (APF)*. 2021.
- [IWPE 21] Stephan Wiefling, **Jan Tolsdorf**, and Luigi Lo Iacono. "Privacy Considerations for Risk-based Authentication Systems". In: *Proceedings of the 7th IEEE International Workshop on Privacy Engineering (IWPE)*. 2021.
- [IRIS 20] Christian K. Bosse, Aljoscha Dietrich, Patricia Kelbert, Hagen Küchler, Hartmut Schmitt, **Jan Tolsdorf**, and Andreas Weßner. "Beschäftigtendatenschutz: Rechtliche Anforderungen und Technische Lösungskonzepte". In: *Tagungsband des 23. Internationalen Rechtsinformatik Symposions IRIS 2020*. 2020.
- [DuD 20] **Jan Tolsdorf**, Christian K. Bosse, Aljoscha Dietrich, Denis Feth, and Hartmut Schmitt. "Privatheit am Arbeitsplatz - Transparenz und Selbstbestimmung bei Arbeit 4.0". In: *Datenschutz und Datensicherheit (DuD)* 44.3 (2020).
- [AsiaUSEC 20] **Jan Tolsdorf** and Florian Dehling. "In Our Employer We Trust: Mental Models of Office Workers' Privacy Perceptions". In: *Proceedings of the 1st Asian Workshop on Usable Security (AsiaUSEC, FC workshop)*. 2020.
- [ITG News 20] **Jan Tolsdorf**, Florian Dehling, and Luigi Lo Iacono. "Take Back Control! The Use of Mental Models to Develop Privacy Dashboards". In: *ITG News 8.3* (2020). Edited by Informationstechnische Gesellschaft im VDE.
- [EuroUSEC 20] **Jan Tolsdorf** and Luigi Lo Iacono. "Vision: Shred If Insecure – Persuasive Message Design as a Lesson and Alternative to Previous Approaches to Usable Secure Email Interfaces". In: *Proceedings of the 5th European Workshop on Usable Security (EuroUSEC)*. 2020.
- [ECCWS 18] Nils Gruschka, Luigi Lo Iacono, and **Jan Tolsdorf**. "Classification of Android App Permissions: Tell Me What App You Are and I Tell You What You Are Allowed to Do". In: *Proceedings of the 17th European Conference on Cyber Warfare and Security (ECCWS)*. 2018.
- [TrustBus 17] Hoai Viet Nguyen, **Jan Tolsdorf**, and Luigi Lo Iacono. "On the Security Expressiveness of REST-Based API Definition Languages". In: *Proceedings of the 14th International Conference on Trust, Privacy and Security in Digital Business (TrustBus)*. 2017.

## FURTHER PUBLICATIONS AND REPORTS

- [KTM 23b] **Jan Tolsdorf** and Luigi Lo Iacono. "Faktor Mensch: Risiko und Chance: Informationssicherheitsbewusstsein in medizinischen Einrichtungen – Expertenansichten (Teil 2)". In: *Krankenhaus Technik+Management (KTM)* 2023.9 (2023).
- [KTM 23a] **Jan Tolsdorf** and Luigi Lo Iacono. "Medizinisches Personal sensibilisieren: Bewusstsein für Gefährdungen der Patientenversorgung aus dem Cyberraum schaffen – Teil 1". In: *Krankenhaus Technik+Management (KTM)* 2023.7-8 (2023).
- [BMBF 22] Luigi Lo Iacono and **Jan Tolsdorf**. *Schlussbericht des Teilvorhabens "Konzeptionierung, Implementierung und Evaluation von Privacy-Dashboards im Arbeitnehmerdatenschutz" im Rahmen des Verbundprojekts "TrUSD - Transparente und selbstbestimmte Ausgestaltung der Datennutzung im Unternehmen"*. Technical report. Hochschule Bonn-Rhein-Sieg, 2022.
- [DISS 22] **Jan Tolsdorf**. "Investigation of Information Privacy in Employment: Fundamental Knowledge and Practical Solutions for the Human-Centered Design of Measures to Preserve the Right to Informational Self-Determination in Employment". Dissertation. 2022.

## BOOK CHAPTERS

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- [Book 23b] Eduard C. Groen, Denis Feth, Svenja Polst, **Jan Tolsdorf**, Stephan Wiefling, Luigi Lo Iacono, and Hartmut Schmitt. "Achieving Usable Security and Privacy Through Human-Centered Design". In: *Human Factors in Privacy Research*. Edited by Nina Gerber, Alina Stöver, and Karola Marky. 2023.
- [GI 23] **Jan Tolsdorf**. "Informationelle Privatheit im Beschäftigungsverhältnis". In: *Ausgezeichnete Informatikdissertationen 2022 (Band D23)*. 2023.
- [Book 23a] **Jan Tolsdorf** and Luigi Lo Iacono. "Data Cart: A Privacy Pattern for Personal Data Management in Organizations". In: *Human Factors in Privacy Research*. Edited by Nina Gerber, Alina Stöver, and Karola Marky. 2023.

## Media Coverage

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- Heise Online**, "Study: [EXTERNAL] tags do not protect against phishing", <https://www.heise.de/news/Studie-EXTERN-Tags-schuetzen-nicht-vor-Phishing-11092509.html> 2025
- Golem**, "[EXTERN]-Tags schützen kaum vor Datenklau via Phishing", <https://www.golem.de/news/studie-zeigt-extern-tags-schuetzen-kaum-vor-datenklau-via-phishing-2511-202649.html> 2025
- Krankenhaus IT**, "Studie zeigt: Viele Anti-Phishing-Maßnahmen schützen Kliniken nur unzureichend", <https://www.krankenhaus-it.de/item.4689/studie-zeigt-viele-anti-phishing-massnahmen-schuetzen-kliniken-nur-unzureichend.html> 2025
- Frankfurter Allgemeine Zeitung (FAZ)**, "Simulation zeigt Risiken: Große Gefahr durch Phishing in Kliniken", <https://www.faz.net/aktuell/rhein-main/region-und-hessen/gefahr-durch-phishing-in-kliniken-accg-200266968.html> 2025
- Deutsches Ärzteblatt**, "Cybersicherheit: Angriffe leicht möglich", <https://www.aerzteblatt.de/archiv/titel/dae/2025/25/cybersicherheit-angriffe-leicht-moeglich-693174cf-e8ae-4ffe-ba9d-542e799a5b36> 2025

## Awards, Fellowships, & Grants

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- Co-Founder & -Initiator of "HuSecMe" under the StartUpSecure Initiative**, German Federal Ministry of Research, Technology and Space € 580,000 2025
- Top Reviewers Award**, ACM CCS 2025
- Nominee for the Dissertation Award 2022 of the German Informatics Society**, Georg-August-Universität Göttingen 2023
- Doctoral Thesis Award Bonn-Rhein-Sieg University Society 2022**, Hochschulgesellschaft Bonn-Rhein-Sieg e. V. € 1,000 2023
- GAUSS Book Award in recognition of outstanding doctoral achievements**, Georg-August-Universität Göttingen 2022

## Invited Talks & Guest Lectures

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- Invited talk**, GCI Seminar Series, Rochester Institute of Technology, Rochester, New York, USA "Enabling Human-Centered Privacy and Security Engineering" Fall '24
- Guest lecture**, Barnard College, Columbia University, New York, USA "Conceptualizations of Privacy" Fall '24

<b>Invited talk</b> , The George Washington University, Washington, D.C., USA “Enabling Human-Centered Privacy and Security Engineering”	Spring ‘23
<b>Invited talk</b> , Stammtisch Cyber Security Cluster Bonn e. V., Bonn, Germany “Das Verfahren ist nicht neu [...] aber Sie erreichen damit niemanden mehr’ – Maßnahmen zur Steigerung von Informationssicherheitsbewusstsein in medizinischen Versorgungseinrichtungen. (Engl.: Measures to increase information security awareness in medical care facilities.)”	Winter ‘23
<b>Invited talk</b> , Hochschulgessellschaft Bonn-Rhein-Sieg e. V., Sankt Augustin, Germany “Employee-Centered Design of Technical and Organizational Privacy Measures”	Winter ‘22
<b>Invited talk</b> , CS Colloquium, Karlstad University, Karlstad, Sweden “Employee-Centered Design of Technical and Organizational Privacy Measures”	Winter ‘22
<b>Invited talk</b> , AFSecurity Seminar, University of Oslo, Oslo, Norway “Employee-Centered Design of Technical and Organizational Privacy Measures”	Winter ‘22
<b>Guest lecture</b> , Friedrich-Alexander-Universität, Erlangen-Nürnberg, Germany “Employees’ Mental Models of the Right to Privacy: Insights from Germany”	Summer ‘22
<b>Invited talk</b> , Usable Security and Privacy (USP) Day, VDE ITG, Online, Germany “Data Cart - Designing a tool for the GDPR-compliant handling of personal data by employees”	Summer ‘22
<b>Guest lecture</b> , Georg-August-Universität, Göttingen, Germany “Employees’ Mental Models of the Right to Privacy: Insights from Germany”	Winter ‘21
<b>Guest lecture</b> , Georg-August-Universität, Göttingen, Germany “Employees’ Mental Models of the Right to Privacy: Insights from Germany”	Winter ‘20
<b>Invited talk</b> , Georg-August-Universität Göttingen, Göttingen, Germany “Das Privacy-paradoxon – Der Scheinbare Widerspruch Zwischen Bedenken Und Verhalten Beim Datenschutz (Engl.: The Privacy Paradox - the Apparent Contradiction Between Privacy Concerns and Behavior)”	Spring ‘19

## Teaching & Mentoring

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### LECTURER/ INSTRUCTOR

<b>Co-Instructor</b> in “CSCI 4533/6533 Introduction to Usable Security and Privacy”	BS, MS, PhD course	Fall ‘24
<b>Instructor / External Lecturer</b> in “Privacy Engineering”	B.Sc. Course	Summer ‘23

### TUTOR & TEACHING ASSISTANCE

<b>Teaching Assistant</b> in “Privacy and Security” Supervising and evaluating seminar papers	B.Sc. Course	Winter ‘23/‘24 Winter ‘22/‘23
<b>Teaching Assistant</b> in “Data Protection, IT Law and Privacy” Preparing courses and exercises	B.Sc. Course	Winter ‘21/‘22 Winter ‘20/‘21
<b>Teaching Assistant</b> in “Advanced Topics in Security and Privacy” Supervising and evaluating seminar papers	M.Sc. Course	Summer ‘21
<b>Teaching Assistant</b> in “Privacy and Security” Supervising and evaluating seminar papers	M.Sc. Course	Summer ‘20 Winter ‘19/‘20

<b>Teaching Assistant in “Web Programming”</b> Supervising lab exercises	<i>B.Sc. Course</i>	Summer ‘20 Summer ‘19 Summer ‘18
<b>Teaching Assistant in “Informatics 1”</b> Tutoring and reviewing programming exercises	<i>B.Sc. Course</i>	Winter ‘14/‘15

## STUDENT MENTORING

**Arwa Alshadi**, Ph.D. student  
**Junho Eum**, Ph.D. student  
**Wellington Esposito Barbosa**, Ph.D. student  
**Monica Kodwani**, Ph.D. student  
**Joseph Staller**, Undergrad student  
**Philip Erdmann**, BS student, Alumni  
**Marian Hönscheid**, BS student, Alumni  
**Cole Knie**, MS student, Alumni

## SUPERVISED STUDENT THESIS

<b>P. Klein.</b> “Wie Nutzende mit Fremdprivatheit in KI-Anwendungen umgehen (Engl.: How users deal with other people’s privacy in AI applications.)”	<i>B.Sc. Thesis</i>	2025
<b>A. Portz.</b> “Datenschutzkonformität von Dashcams. (Engl.: Data Protection Compliance of Dashcams.)”	<i>B.Sc. Thesis</i>	2024
<b>L. Rohé.</b> “Auswirkung von Nudging auf Security Fatigue am Beispiel Passwortwahl. (Engl.: Effects of Nudging on Security Fatigue Using the Example of Password Selection.)”	<i>B.Sc. Thesis</i>	2022
<b>M. Fischer.</b> “Privacy Dashboards – Untersuchung verschiedener Dashboards von Unternehmen im Hinblick auf die Anforderungen der DSGVO. (Engl.: Privacy Dashboards - Examination of Various Dashboards of Companies Regarding the Requirements of the GDPR.)”	<i>B.Sc. Thesis</i>	2021
<b>F. Dehling.</b> “Investigations on Utilizing Web Browser Caches for User Tracking.”	<i>M.Sc. Thesis</i>	2020

## Service

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### PC MEMBER

Annual Privacy Forum: 2023, 2024, 2025  
 ACM CCS: 2025, 2026  
 EuroUSEC: 2023, 2024  
 Usable Security and Privacy Workshop: 2020, 2021, 2022, 2023, 2024, 2025  
 PETS: 2025, 2026

### EXT. REVIEWER

ACM CHI: 2022, 2025, 2026  
 International Journal of Human-Computer Interaction: 2022, 2023, 2024  
 Behaviour & Information Technology: 2022

### EXAMINER

Bachelor Thesis, Bonn-Rhein-Sieg University of Applied Sciences: 2024  
 Master Thesis, University of Oslo: 2021