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dblp <https://dblp.uni-trier.de/pers/hd/h/Harborth:David>



## EMPLOYMENT

- From 07/2021 Goethe University Frankfurt, Frankfurt am Main, Business Informatics  
Chair of Mobile Business & Multilateral Security  
*Postdoctoral researcher*
- Management of individual research projects
  - Holding an own lecture series on quantitative and qualitative research methods in information systems for Master students
- 12/2015 – 07/2021 Goethe University Frankfurt, Frankfurt am Main, Business Informatics  
Chair of Mobile Business & Multilateral Security  
*Research and teaching assistant*
- Research on multiple projects in information systems and computer science
  - Supervision of over 25 seminars, bachelor and master theses
  - Responsible for the organization of the teaching for the research group
- 01/2020 – 03/2020 International Computer Science Institute (ICSI) and Berkeley Laboratory for Usable and Experimental Security (BLUES) at UC Berkeley, Berkeley, CA  
([https://blues.cs.berkeley.edu/people/david\\_harborth/](https://blues.cs.berkeley.edu/people/david_harborth/))  
*Visiting researcher*
- Research on privacy in mobile augmented reality applications
  - Collaboration on multiple projects related to usable security and privacy (e.g., related to always-on listening devices)
- 10/2015 – 11/2015 KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main  
*Senior Associate, Financial Services, Regulatory*
- Analysis of financial regulations and implications on financial institutions
  - Independent realization of consulting projects (including documentation)
  - Performance of process and data analyses
- 12/2013 – 09/2015 KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main  
*Working student, Advisory, Financial Services, Regulatory and Compliance*
- Development and maintenance of KPMG-LexLinks (platform to link national, European and international regulations)

## EDUCATION

- 12/2015 – 07/2021 Goethe University Frankfurt, Frankfurt am Main  
*Dr. rer. pol. (equivalent to PhD in Economics)*  
Grade: summa cum laude
- 10/2013 – 09/2015 Goethe University Frankfurt, Frankfurt am Main  
*Master of Science in Management with specialization in Finance and Information Management*  
Grade: 1.7

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|-------------------|--|
| 10/2010 – 09/2013 | Goethe University Frankfurt, Frankfurt am Main<br><i>Bachelor of Science in Economics and Business Administration with specialization Finance and Accounting</i><br>Grade: 1.9 |
| 09/2002 – 07/2010 | Hartmanni-Gymnasium, Eppingen<br><i>A levels</i><br>Grade: 1.8   |

## PROJECT WORK

|                   |   |
|-------------------|---|
| 09/2020 – dato    | “A Technical and Socio-Economic Analysis of the Corona-Warn-App in Germany with respect to Privacy”<br>Funded by the Goethe-Corona-Fonds of the Goethe University Frankfurt<br><i>Project Lead</i>                  |
| 01/2016 – 06/2019 | “Anonymität Online der nächsten Generation (AN.ON-Next)”<br>Funded by the German Federal Ministry of Education and Research (BMBF)<br><i>Sub-Project Lead</i>   |
| 02/2016 – 12/2016 | “Technology-supported Risk Estimation by Predictive Assessment of Socio-technical Security (TRESPASS)”<br>Funded by the European Commission's Seventh Framework Program<br><i>Collaboration in Working Packages</i> |

## RESEARCH INTERESTS

- User perceptions related to immersive systems and technology acceptance research, especially Augmented Reality (AR)
- Artificial Intelligence (AI) and Intelligence Augmentation (IA) and possible effects on the work life
- Privacy of individuals in the digital sphere, including analyses of privacy concerns and their ramifications with regard to technology use
- Informational self-determination of individuals through privacy-enhancing technologies (PETs) and user adoption

## REFEREED JOURNAL ARTICLES

- Harborth, D. and Pape, S. (2021). “Investigating Privacy Concerns related to Mobile Augmented Reality Applications - A Vignette Based Online Experiment”, *Computers in Human Behavior*, 122, pp. 1-17. DOI: 10.1016/j.chb.2021.106833.  
[CORE Journal Ranking: -, ABDC Journal Ranking: A, VHB-JOURQUAL3: -]
- Schmitz, C., Schmid, M., Harborth, D., Pape, S. (2021). “Maturity Level Assessments of Information Security Controls: An Empirical Analysis of Practitioners' Assessment Capabilities”, *Computers & Security*, 108, pp. 102306. DOI: 10.1016/j.cose.2021.102306.  
[CORE Journal Ranking: B, ABDC Journal Ranking: A, VHB-JOURQUAL3: -]
- Pape, S., Ivan, A., Harborth, D., Nakamura, T., Kiyomoto, S., Takasaki, H., Rannenberg, K. (2020). “Re-Evaluating Internet Users' Information Privacy Concerns: The Case in Japan”, *AIS Transactions on Replication Research (TRR)*, 6(18), DOI: 10.17705/1attr.00061.  
[CORE Journal Ranking: -, ABDC Journal Ranking: -, VHB-JOURQUAL3: -]

- Harborth, D. and Pape, S. (2020). "How Privacy Concerns, Trust and Risk Beliefs and Privacy Literacy Influence Users' Intentions to Use Privacy-Enhancing Technologies - The Case of Tor", ACM SIGMIS Database, 51(1), pp. 51-69, DOI: 10.1145/3380799.3380805.  
[CORE Journal Ranking: B, ABDC Journal Ranking: A, VHB-JOURQUAL3: B]
- Harborth, D. and Kreuz, H. (2020). "Exploring the Attitude Formation Process of Individuals towards New Technologies: The Case of Augmented Reality", International Journal of Technology Marketing, 14(2), pp. 125-153, DOI: 10.1504/IJTMKT.2020.110128.  
[CORE Journal Ranking: -, ABDC Journal Ranking: C, VHB-JOURQUAL3: k.R.]
- Harborth, D. and Pape, S. (2020). "How Nostalgic Feelings Impact Pokémon Go Players - Integrating Childhood Brand Nostalgia into the Technology Acceptance Theory", Behaviour & Information Technology, 39(12), pp. 1276-1296, DOI: 10.1080/0144929X.2019.1662486.  
[CORE Journal Ranking: A, ABDC Journal Ranking: A, VHB-JOURQUAL3: -]
- Harborth, D. and Pape, S. (2020). "Empirically Investigating Extraneous Influences on the "APCO" Model – Childhood Brand Nostalgia and the Positivity Bias", Future Internet, 12(12), pp. 1-16, DOI: 10.3390/fi12120220.  
[CORE Journal Ranking: -, ABDC Journal Ranking: -, VHB-JOURQUAL3: -]
- Harborth, D. and Pohl, M. (2017). "Standardization of 5G Mobile Networks - A Systematic Literature Review and Current Developments", International Journal of Standardization Research (IJSR), 15(2), pp. 1-24, DOI: 10.4018/IJSR.2017070101.  
[CORE Journal Ranking: C, ABDC Journal Ranking: -, VHB-JOURQUAL3: -]

## REFEREED CONFERENCE ARTICLES

- Harborth, D. and Frik, A. (2021). "Evaluating and Redefining Smartphone Permissions with Contextualized Justifications for Mobile Augmented Reality Apps", In: USENIX Symposium on Usable Privacy and Security (SOUPS).
- Pape, S., Harborth, D., Kröger, J. (2021). "Privacy Concerns Go Hand in Hand with Lack of Knowledge: The Case of the German Corona-Warn-App", In: 36th IFIP TC-11 SEC 2021 International Conference on Information Security and Privacy Protection (IFIP SEC).
- Harborth, D., Pape, S., Rannenber, K. (2020). "Explaining the Technology Use Behavior of Privacy-Enhancing Technologies: The Case of Tor and JonDonym". In: Proceedings on Privacy Enhancing Technologies Symposium (PoPETs20), 2020(2), pp. 111-128.  
DOI: 10.2478/popets-2020-0020.  
[CORE Conference Ranking: B, VHB-JOURQUAL3: -]
- Tronnier, F., Hamm, P., Harborth, D. (2020). "The Role Of Behavioural Biases And Personality Traits Of Retail Investors In ICOs". In: Twenty-Eight European Conference on Information Systems (ECIS).  
[CORE Conference Ranking: A, VHB-JOURQUAL3: B]
- Harborth, D. and Pape, S. (2019). "Investigating Privacy Concerns related to Mobile Augmented Reality Applications". In: International Conference on Information Systems (ICIS).  
[CORE Conference Ranking: A\*, VHB-JOURQUAL3: A]

- Harborth, D., Cai, X., Pape, S. (2019). "Why Do People Pay for Privacy-Enhancing Technologies? The Case of Tor and JonDonym", In: 34th IFIP TC-11 SEC 2019 International Conference on Information Security and Privacy Protection (IFIP SEC). Lisbon, Portugal, DOI: 10.1007/978-3-030-22312-0\_18. *(Nominated for best student paper award)*  
[CORE Conference Ranking: B, VHB-JOURQUAL3: -]
- Hamm, P., Harborth, D., Pape, S. (2019). "Analysis of User Evaluations in Security Research", In: 1st International Workshop on Information Security Methodology and Replication Studies (IWSMR 2019), held in conjunction with the 14th International Conference on Availability, Reliability and Security (ARES). Canterbury, UK,  
[CORE Conference Ranking: -, VHB-JOURQUAL3: -]
- Harborth, D. (2019). "Unfolding Concerns about Augmented Reality Technologies: A Qualitative Analysis of User Perceptions", In: Wirtschaftsinformatik (WI). Siegen, Germany.  
[CORE Conference Ranking: C, VHB-JOURQUAL3: C]
- Harborth, D., M. Hatamian, W. B. Tesfay and K. Rannenber. (2019). "A Two-Pillar Approach to Analyze the Privacy Policies and Resource Access Behaviors of Mobile Augmented Reality Applications", In: 52nd Hawaii International Conference on System Sciences (HICSS). Maui, US.  
[CORE Conference Ranking: A, VHB-JOURQUAL3: C]
- Harborth, D. and S. Pape. (2019). "How Privacy Concerns and Trust and Risk Beliefs Influence Users' Intentions to Use Privacy-Enhancing Technologies - The Case of Tor", In: 52nd Hawaii International Conference on System Sciences (HICSS). Maui, US.  
[CORE Conference Ranking: A, VHB-JOURQUAL3: C]
- Harborth, D. and Pape, S. (2018). "JonDonym Users' Information Privacy Concerns", In: 33rd IFIP TC-11 SEC 2018 International Conference on Information Security and Privacy Protection (IFIP SEC). Poznan, Poland, DOI: 10.1007/978-3-319-99828-2\_13.  
[CORE Conference Ranking: B, VHB-JOURQUAL3: -]
- Harborth, D. and Pape, S. (2018). "Examining Technology Use Factors of Privacy-Enhancing Technologies: The Role of Perceived Anonymity and Trust", In: 24th Americas Conference on Information Systems (AMCIS). New Orleans, US.  
[CORE Conference Ranking: A, VHB-JOURQUAL3: D]
- Kohn, V. and Harborth, D. (2018). "Augmented Reality – A Game Changing Technology For Manufacturing Processes?", In: 26th European Conference on Information Systems (ECIS). Portsmouth, UK.  
[CORE Conference Ranking: A, VHB-JOURQUAL3: B]
- Harborth, D., Braun, M., Grosz, A., Pape, S., & Rannenber, K. (2018). "Anreize und Hemmnisse für die Implementierung von Privacy-Enhancing Technologies im Unternehmenskontext", In: Langweg, H., Meier, M., Witt, B. C. & Reinhardt, D. (Hrsg.), Sicherheit 2018: Sicherheit, Schutz und Zuverlässigkeit, Beiträge der 9. Jahrestagung des Fachbereichs Sicherheit der Gesellschaft für Informatik e.V. (GI), pp. 29-41. Konstanz, Germany, DOI: 10.18420/sicherheit2018\_02  
[CORE Conference Ranking: -, VHB-JOURQUAL3: -]
- Harborth, D. and Pape, S. (2017). "Exploring the Hype: Investigating Technology Acceptance Factors of Pokémon Go", In: 2017 IEEE International Symposium on Mixed and Augmented Reality (ISMAR), pp. 155-168. Nantes, France, DOI: 10.1109/ISMAR.2017.32  
[CORE Conference Ranking: A\*, VHB-JOURQUAL3: -]

- Harborth, D. and Pape, S. (2018). "Privacy Concerns and Behavior of Pokémon Go Players in Germany", In: Hansen M., Kosta E., Nai-Fovino I., Fischer-Hübner S. (eds) Privacy and Identity Management. The Smart Revolution. Privacy and Identity 2017. IFIP Advances in Information and Communication Technology, vol 526, pp. 314-329. Springer, Cham, DOI: 10.1007/978-3-319-92925-5\_21.  
[CORE Conference Ranking: -, VHB-JOURQUAL3: -]
- Harborth, D. (2017). "Augmented Reality in Information Systems Research: A Systematic Literature Review", In: 23rd Americas Conference on Information Systems (AMCIS). Boston, US.  
[CORE Conference Ranking: A, VHB-JOURQUAL3: D]

## ARTICLES IN PROGRESS

- Harborth, D., Pape, S., McKenzie, L. (2021). "Why Individuals Do (Not) Use Contact Tracing Apps: An Empirical Analysis of the German Corona-Warn-App".
- Tronnier, F., Harborth, D., Hamm, P. (2021). "Investigating Privacy Concerns and Trust in the Digital Euro".
- Harborth, D. and Kümpers, K. (2021). "Intelligence Augmentation: Rethinking the Future of Work by Leveraging Human Performance and Abilities", Virtual Reality. Revise and resubmit.

## WORKING PAPERS

- Harborth, D. and Frik, A. (2020). "Evaluating and Redefining the Permissions for Mobile Augmented Reality Apps", Working paper presented at the CLTC Symposium on Data Rights, Privacy, and Security in AI. Available at: [https://dharborth.github.io/CLTC\\_Submission.pdf](https://dharborth.github.io/CLTC_Submission.pdf).
- Harborth, D. and Pape, S. (2018). "German Translation of the Concerns for Information Privacy (CFIP) Construct", Available at SSRN, URL: <https://ssrn.com/abstract=3112207>.
- Harborth, D. and Pape, S. (2018). "German Translation of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) Questionnaire", Available at SSRN, URL: <https://ssrn.com/abstract=3147708>.
- Harborth, D. and Bauer, E.K. (2017). "The Influence of Advertising on the Process of Technology Adoption: A Systematic Literature Review", Available at SSRN, URL: <https://ssrn.com/abstract=3069809>.
- Harborth, D., Herrmann, D., Köpsell, S., Pape, S., Roth, C., Federrath, H., Kesdogan, D., Rannenberg, K. (2017). "Integrating Privacy-Enhancing Technologies Into the Internet Infrastructure", URL: <https://arxiv.org/abs/1711.07220>.

## PUBLISHED DATASETS

- Harborth, D. and Pape, S. (2020). "Dataset on Actual Users of the Privacy-Enhancing Technology JonDonym", IEEE DataPort, DOI: 10.21227/a66b-8443.
- Harborth, D. and Pape, S. (2020). "Dataset on Actual Users of the Privacy-Enhancing Technology Tor", IEEE DataPort, DOI: 10.21227/734p-nx67.

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**CONFERENCE AND WORKSHOP PRESENTATIONS**

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|         |   |
|---------|---|
| 09/2020 | CLTC Symposium: Data Rights, Privacy, and Security in AI<br>Virtual Workshop                              |
| 07/2020 | 20th Privacy Enhancing Technologies Symposium (PETS 2020)<br>Virtual Conference                           |
| 12/2019 | International Conference on Information Systems (ICIS)<br>Munich, Germany                                 |
| 06/2019 | International Conference on Information Security and Privacy Protection (IFIP<br>SEC)<br>Lisbon, Portugal |
| 02/2019 | International Conference on Wirtschaftsinformatik (WI 2019)<br>Siegen, Germany                            |
| 01/2019 | Hawaii International Conference on System Sciences (HICSS)<br>Maui, US                                    |
| 10/2018 | PET-CON 2018<br>Hamburg, Germany  |
| 08/2018 | Americas Conference on Information Systems (AMCIS)<br>New Orleans, US                                     |
| 06/2018 | European Conference on Information Systems (ECIS)<br>Portsmouth, UK                                       |
| 10/2017 | IEEE International Symposium on Mixed and Augmented Reality (ISMAR)<br>Nantes, France                     |
| 09/2017 | International IFIP Summer School on Privacy and Identity Management<br>Ispra, Italy                       |
| 08/2017 | Americas Conference on Information Systems (AMCIS)<br>Boston, US  |
| 06/2016 | 20. Doktoranden-Kolloquium von Simon-Kucher & Partners<br>Bonn, Germany                                   |

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**RESEARCH GRANTS**

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| 09/2020 | Research grant to investigate acceptance factors of the Corona-Warn-App<br>in Germany (5,000€)<br>Goethe-Corona-Fonds, Goethe University Frankfurt   |
| 03/2020 | Research grant for user studies on Augmented Reality and Privacy within<br>the funding program "Data rights, shared value, and re-defining 'privacy'<br>and 'security' with AI/ML and emerging technologies" (7,500\$)<br>Center for Long-Term Cybersecurity (UC Berkeley) |
| 12/2019 | Financial support for the research visit at the International Computer<br>Science Institute (ICSI) (3,500€)<br>German Academic Exchange Service (Deutscher Akademischer<br>Austauschdienst (DAAD)  |
| 01/2019 | Financial support for presenting at the 52nd Hawaii International Conference<br>on System Sciences (HICSS) (1,200€)<br>Freunde und Förderer (Goethe University Frankfurt)  |
| 01/2019 | Financial support for presenting at the 52nd Hawaii International Conference<br>on System Sciences (HICSS) (1,000€)<br>Forschungstopf (Goethe University Frankfurt)  |

## CURRICULUM VITAE

DAVID HARBORTH

|         |  |
|---------|--|
| 06/2018 | Financial support for presenting at the 26th European Conference on Information Systems (ECIS) (910€)<br>Forschungstopf (Goethe University Frankfurt)              |
| 10/2016 | Financial support for conducting a large-scale user study on the Augmented Reality application Pokémon Go (3,100€)<br>Forschungstopf (Goethe University Frankfurt) |

## REVIEWER ASSIGNMENTS

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|-------------------|--|
| Refereed Journals | Behavior & Information Technology (BIT), Journal of Management Information Systems (JMIS), Business & Information Systems Engineering (BISE), International Journal of Technology Marketing (IJTMkt), ACM Transactions on Management Information Systems (TMIS), International Journal of Human-Computer Studies (IJHCS), Technology in Society  |
| Conferences       | International Conference on Information Systems (ICIS), European Conference on Information Systems (ECIS), Hawaii International Conference on System Sciences (HICSS), Americas Conference on Information Systems (AMCIS), Wirtschaftsinformatik (WI), GI Sicherheit, European Symposium on Research in Computer Security (ESORICS), International Conference on Information and Communications Security (ICICS), International Conference on Information Security and Privacy Protection (IFIP SEC), International Conference On Trust, Security And Privacy In Computing And Communications (TrustCom), Annual Privacy Forum (APF) |

## TEACHING RESPONSIBILITIES

|                  |   |
|------------------|---|
| Winter Term 2020 | Master course: "Research Methods for Evaluating Human Aspects in Information Systems" (own course)  |
| Winter Term 2020 | Master course: "Mobile Business I - Technology, Markets, Platforms, and Business Models"            |
| Summer Term 2020 | Master course: "Information and Communication Security"   |
| Winter Term 2019 | Master course: "Mobile Business I - Technology, Markets, Platforms, and Business Models"            |
| Summer Term 2019 | Master course: "Mobile Business II: Application Design, Applications, Infrastructures and Security" |
| Winter Term 2018 | Bachelor seminar: "Technology-driven Business Model Innovation and the Role of Digital Platforms"   |
| Winter Term 2017 | Master seminar: "Research on Augmented Reality"   |
| Summer Term 2017 | Master seminar: "Augmented Reality: 'The Next Big Thing'"   |
| Winter Term 2016 | Master course: "Mobile Business I - Technology, Markets, Platforms, and Business Models"            |
| Summer Term 2016 | Master course: "Mobile Business II: Application Design, Applications, Infrastructures and Security" |

## HOBBIES

- Cooking, TV shows, books (historic novels and non-fiction books, economics), new technologies, all team sports including a ball, travelling