

# ANNIKA HAMACHERS M.A.

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## PROFESSIONAL EXPERIENCE

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**DEPARTMENT OF COMMUNICATION, GERMAN POLICE UNIVERSITY — Münster, Germany**  
*since 2017*

**Research Assistant**

**INSTITUTE FOR INTERDISCIPLINARY RESEARCH ON CONFLICT AND VIOLENCE — Bielefeld, Germany**

*2017–2020*

**Research Assistant**

**DEANERY FOR THE SOCIAL SCIENCES, WESTFÄLISCHE WILHELMS-UNIVERSITÄT — Münster, Germany**

*2013–2016*

**Research Assistant**

**DEPARTMENT OF COMMUNICATION, WESTFÄLISCHE WILHELMS-UNIVERSITÄT — Münster, Germany**

*2011–2012*

**Research Assistant**

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## EDUCATION

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**UNIVERSITÄT ZU KÖLN —Cologne, Germany**

enrolled in the doctoral program – since 01/2021

**Media Psychology**

**Thesis:** Tracking Emotional Agenda Setting. Mechanismen radikaliserender Agitation im Web [].

**STANFORD SCHOOL OF ENGINEERING — Stanford, USA**

postgraduate online program – 03/2020–10/2021

**Artificial Intelligence Professional Program**

**FERNUNIVERSITÄT HAGEN — Hagen, Germany**

enrolled in the B.A. program – 10/2013–10/2020

**Business Informatics**

**WESTFÄLISCHE WILHELMS-UNIVERSITÄT — Münster, Germany**

M.A. – 2011 (graduated with distinction)

**Communication Science, Psychology, German Philology**

**Thesis:** Storytelling as the core of entertainment. The operationalizability of narration in the context of empirical communication research.

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**FURTHER CERTIFICATIONS**

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**ZERTIFIKAT HOCHSCHULEHRE DES LANDES NORDRHEIN-WESTFALEN**

2015

**Westfälische Wilhelms-Universität Münster****JULIA SCIENTIFIC PROGRAMMING**

2021

**University of Cape Town**Certificate ID: [CHYWHKY67XSQ](#)**MIND & MACHINE SPECIALIZATION**

2020

**University of Colorado Boulder**

consisting of the courses

- What is “the mind” and what is artificial intelligence?
- Methods for Solving Problems
- Computational Vision
- Interpersonal, Developmental, and Evolutionary Perspectives of the Mind

Certificate ID: [C366H6RHE9UF](#)**MATHEMATICS FOR MACHINE LEARNING: MULTIVARIATE CALCULUS**

2020

**Imperial College London**Certificate ID: [ZDX8EC3SGULR](#)**NEURAL NETWORKS AND DEEP LEARNING**

2020

**deeplearning.ai**Certificate ID: [R3CUX75E5HKV](#)**SQL FOR DATA SCIENCE**

2018

**University of California, Davis**Certificate ID: [W98S2JXDAL59](#)**PROGRAMMING MOBILE APPLICATIONS FOR ANDROID HANDHELD SYSTEMS**

2016

**University of Maryland**Certificate ID: [W2WLZEGQAGS5](#)**DATA SCIENCE SPECIALIZATION**

2015

**Johns Hopkins University**

consisting of the courses

- Data Science Capstone
- Developing Data Products
- Reproducible Research
- Statistical Inference
- Regression Models
- Exploratory Data Analysis
- Getting and Cleaning Data
- R Programming
- The Data Scientist's Toolbox

Certificate ID: [UDBVREFHALBW](#)

## STATISTICAL ANALYSIS OF FMRI DATA

2014

Johns Hopkins University

Certificate ID: [4JMM9G5K97](#)

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## PUBLICATIONS & CONFERENCE CONTRIBUTIONS

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- Hamachers, A. (in preparation). *X-Sonar ReporteR - Interactive Project Analytics using R and Shiny* [Interactive web application].
- Hamachers, A. (in preparation). *Literate Coding and Interactive Data Sharing in R* [Tutorial].
- Hamachers, A. (in preparation). *United in Isolation – Measuring Sentiment Alignment Across Extremist Communities During the COVID-19 Lockdown*.
- Hamachers, A. (in preparation). *Wahrnehmung islamistischer Agitation im Netz – Formen, Verbreitung und Selbstregulierungsmechanismen der Online-Community*. Münster: Deutsche Hochschule der Polizei - Hochschulverlag.
- Hamachers, A. (2022). *Leveraging a TRANSFORMed label propagation algorithm for emotion recognition on Reddit*.
- Hamachers, A., Papadopulos, M., Rosenkranz, F., Yalim, Y., Weber, K. & Jarolimek, S. (2022). *Extremistische Instrumentalisierung des Islam. Hintergründe, Erklärungs- und Präventionsansätze (DHPol@Campus – Materialien zum Studium, Vol. 1)*. Münster: Deutsche Hochschule der Polizei - Hochschulverlag.
- Hamachers, A. 2021. *Advanced Network Visualization with R and Gephi* [Tutorial].  
<https://doi.org/10.13140/RG.2.2.35790.38722>
- Hamachers, A. 2021. *Giving your data a face - Chernoff plots in R* [Tutorial].  
<https://doi.org/10.13140/RG.2.2.32434.94403>
- Hamachers, A. 2021. *Reporting with KNIME: Literate Programming, BIRT, & Guided Analytics* [Tutorial].  
<https://doi.org/10.13140/RG.2.2.34112.66562>
- Hamachers, A. 2021. *Data Science without Programming? The Potential of KNIME Analytics* [Tutorial].  
<https://doi.org/10.13140/RG.2.2.14032.43522>
- Hamachers, A. 2021. *Codeless Topic Modelling with KNIME* [Tutorial].  
<https://doi.org/10.13140/RG.2.2.14871.29608>
- Eppert, K., Falkenhein, K.-S., Hamachers, A., Hertel, D., Roth, V., Tsolak, D., & Zick, A. 2021. Individuelle und kollektive Radikalisierung im Bereich islamistisch-dschihadistischer

- Bestrebungen. In U. Kemmesies, P. Wetzels, B. Austin, A. Dessecker, E. Grande, I. Kusche, & D. Rieger (Eds.) *Motra Monitor 2020* (pp. 341–349). Bundeskriminalamt – Forschungsstelle Terrorismus/Extremismus. Wiesbaden.
- Hamachers, A., Weber, K., & Jarolimek, S. (Eds.) (2020). [Extremistische Dynamiken im Social Web. Forschungsbefunde zu den digitalen Katalysatoren politisch und religiös motivierter Gewalt.](#) Frankfurt a.M.: Verlag für Polizeiwissenschaft.
- Hamachers, A. (2020). [Islamistische Inhalte im Internet. Typologierungsansätze und Rezipientenperspektive.](#) In A. Hamachers, K. Weber, & S. Jarolimek (Eds.). *Extremistische Dynamiken im Social Web. Forschungsbefunde zu den digitalen Katalysatoren politisch und religiös motivierter Gewalt* (pp. 27–68). Frankfurt a.M.: Verlag für Polizeiwissenschaft.
- Weber, K. & Hamachers, A. (2020). Aus dem radikalen Netzwerk in den Jihad. Radikale Prediger als Schlüsselakteure im Umfeld deutscher Syrienreisender. In A. Hamachers, K. Weber, & S. Jarolimek (Eds.). *Extremistische Dynamiken im Social Web. Forschungsbefunde zu den digitalen Katalysatoren politisch und religiös motivierter Gewalt* (pp. 225–270). Frankfurt a.M.: Verlag für Polizeiwissenschaft.
- Hamachers, A., Gundlach, J., Heereman, W., Selzer, A., & Yannikos, Y. (2020). [Data Mining zur Erfassung extremistischer Aktivitäten in Online-Netzwerken. Technische und juristische Rahmenbedingungen bei der Erfassung und Aufbereitung von Social Media-Daten für wissenschaftliche Zwecke.](#) In A. Hamachers, K. Weber, & S. Jarolimek (Eds.). *Extremistische Dynamiken im Social Web. Forschungsbefunde zu den digitalen Katalysatoren politisch und religiös motivierter Gewalt* (pp. 141–168). Frankfurt a.M.: Verlag für Polizeiwissenschaft.
- Hamachers, A., Weber, K., & Jarolimek, S. (2020). Einleitung. In A. Hamachers, K. Weber, & S. Jarolimek (Eds.). *Extremistische Dynamiken im Social Web. Forschungsbefunde zu den digitalen Katalysatoren politisch und religiös motivierter Gewalt* (pp. 1–6). Frankfurt a.M.: Verlag für Polizeiwissenschaft.
- Hamachers, A. (2020, May). [The Domain-Specificity of Affective Language. An Attempt to Enhance Automated Discourse Analyses with Supervised Machine Learning.](#) Paper presented at the virtual preconference “Open Methods, Open Data” to the annual conference of the International Communication Association, Gold Coast, Australia, 21.05.2020.
- Hamachers, A. (2019, May). [Adolescents Countering Islamist Online Propaganda. The Moderating Role of Different Dimensions of Internet Literacy.](#) Paper presented at the annual conference of the International Communication Association, Washington D.C., 27.05.2019.
- Hamachers, A. (2019, May). [‘Topic Modelling’ von Da‘wa & Co. Semi-automatisierte Ansätze zur Erkennung radikalischer Sprache im Internet.](#) Poster presented at the 25<sup>th</sup> Day of Prevention, Berlin, 20.–21.05.2019.
- Hamachers, A. (2019, May). [Umgang mit jihadistisch-islamistischer Propaganda im Social Web \(III\).](#) Paper presented at the 25<sup>th</sup> Day of Prevention, Berlin, 20.–21.05.2019.
- Hamachers, A., Galic, A., Böckler, N., & Groß, E. (2019, April). [Profiling Malignant Rhetoric. Linking cognitive linguistics and machine learning algorithms to evaluate the emotionality of populist discourse.](#) Paper presented at the ECPR Joint Workshop Session 'Populism & Emotions', Mons, 09.–12.04.2019.
- Hamachers, A., Gundlach, J., & Groß, E. (2018, September). *Akteurszentrierte Konzeptanalyse zur Detektion extremistischer Bestrebungen in sozialen Medien – Ein Framework zur simultanen Integration von Netzwerk- und Diskursdaten.* Paper presented at the workshop session ‚Aktuelle Entwicklungen in der Netzwerkforschung‘ of the section ‚Soziologische Netzwerkforschung der Deutschen Gesellschaft für Soziologie‘, Göttingen, 24.–28.09.2018.
- Groß, E., Gundlach, J., Borchardt, L. & Hamachers, A. (2018, August). *Right-Wing Extremist and Djihadist Ambitions in Social Media Networks: Identification, Analysis and Management of Violent*

- Radicalisation in Germany - A Mixed Methods Approach*. Paper presented at the VOX-Pol workshop 'Violent Extremism, Terrorism, and the Internet: Present and Future Trends', Amsterdam, 09.–12.04.2018.
- Kubera, T., Hamachers, A., & Jarolimek, S. (2018). Deutungshoheit. In T. Kubera, T. Dierschke, G. Duttler, & A. Werner (Hgg.), *Sicherheit und Kommunikation bei Fußballgroßveranstaltungen: Praxishandbuch für Akteure im Netzwerk der Sicherheitsgewährleistung*. Stuttgart: Richard Boorberg Verlag.
- Hamachers, A., & Jarolimek, S. (2018, June). *Umgang mit jihadistisch-islamistischer Propaganda im Netz*. Paper presented at the 23<sup>rd</sup> German Day of Prevention, Dresden, 11.–12.06.2018.
- Hamachers, A., & Jarolimek, S. (2018, May). [Particularly vulnerable? Migrants' contact with and reactions towards jihadist online propaganda](#). Paper presented at the preconference 'Refugees, Religious Threats, and Political Radicalization: Theoretical and Empirical Perspectives' at the annual conference of the International Communication Association, Praha, 23.05.2018.
- Hamachers, A., & Jarolimek, S. (2018, May). *Establishing 'Interpretational Sovereignty' Online in the Context of Law Enforcement*. Paper presented at the annual conference of the International Communication Association, Praha, 24.05.–28.05.2018.
- Hamachers, A., & Gehrau, V. (2018). Der Stellenwert der Beobachtung innerhalb der Kommunikationswissenschaft. Eine Analyse empirischer Beiträge aus 22 Internationalen Fachjournals. In J. Vogelgesang, J. Matthes, C. Schieb, & T. Quandt (Eds.) (2016): *Beobachtungsverfahren in der Kommunikationswissenschaft*. Köln: Herbert von Halem.
- Gehrau, V., & Hamachers, A. (2018). Spezifika kommunikationswissenschaftlicher Beobachtungen. In J. Vogelgesang, J. Matthes, C. Schieb, & T. Quandt (Eds.) (2018): *Beobachtungsverfahren in der Kommunikationswissenschaft*. Köln: Herbert von Halem.
- Hamachers, A., Kane, R. J., & Jarolimek, S. (2018, March). [From coercion to communication. Opportunities to establish 'interpretational sovereignty' online in the context of policing and challenges of cross-cultural transferability](#). Paper presented at the International Crisis and Risk Communication Conference, Orlando, 12.–14.03.2018.
- Hamachers, A., & Jarolimek, S. (2018, February). *Islamismus – who cares?!. Ergebnisse einer repräsentativen Umfrage zur Rezeption extremistischer Inhalte im Internet*. Paper presented at the Workshop 'Multidisciplinary Perspectives on Radicalisation, New Media and Education' of the CONTRA-Project, Köln, 22.–23.02.2018.
- Jarolimek, S., Hamachers, A., & Widmann, J. (2017, December). *Projekt X-SONAR: Analyse extremistischer Bestrebungen in sozialen Netzwerken*. Paper presented at the conference 'Postfaktische Sicherheitspolitik?! Gewährleistung von Sicherheit in unübersichtlichen Zeiten' of the Arbeitskreis Innere Sicherheit, Münster, 11.–12.12.2017.
- Hamachers, A., Kahr, R., & Jarolimek, S. (2017, September). ['Oscillation' with a Terrorist's Mindset. Transportation, Identification, and Narrative Assimilation in the Process of Political Radicalization](#). Poster presented at the annual conference of the Media Psychology Division of the German Psychological Society, Landau, 06.–08.09.2017.
- Hamachers, A., & Djerkovic, D. (2017, October). [Maintaining law enforcement legitimacy in times of digital media: Managing the balancing act between operational efficacy and the public's demand for information during major police operations](#). Paper presented at the 5<sup>th</sup> International Crisis Communication Conference, Lisbon, 19.–21.10.2017.
- Hamachers, A., Widmann, J., & Roth, V. (2017, October). *Narrative Ästhetiken in der medialen Berichterstattung über IS-Terroristen und ihre unbeabsichtigte Wirkung auf jihadistische Radikalisierungsprozesse*. Paper presented at the 17<sup>th</sup> workshop of the 'Netzwerk Terrorismusforschung', Tübingen, 05.–06.10.2017.

- Jarolimek, S., & Hamachers, A. (2017, May). *Social Media & mediale Inszenierung Strukturwandel der Öffentlichkeit und die Bedeutung für die Polizei*. Paper presented at the annual conference of police chaplains, Magdeburg, 03.05.2017.
- Hamachers, A., & Kahr, R. (2016, November). *Can media 'story-tell' migrants into terrorists? The unintended effects of narrative ISIS coverage on political radicalization*. Paper presented at the preconference "Media and Migration" to the annual conference of the European Communication Association, Praha, 09.11.2016.
- Hamachers, A., & Gehrau, V. (2016, June). *Data gathering across communication research: a meta-analytic review from 2000 to 2015*. Paper presented at the preconference "Communication Research Methods 2016: Practices and Challenges" to the annual conference of the International Communication Association, Fukuoka, 09.06.2016.
- Hamachers, A. (2015, May). *Towards a study of narrative media effects in cultural context*. Paper presented at the preconference "Stuart Hall and the Future of Media and Cultural Studies" to the annual conference of the International Communication Association, San Juan, 20.05.2015.
- Hamachers, A. (2014, November): *'Stories are to entertain...!?' An investigation into defining narrative features and their impact on enjoyment*. Paper presented at the annual conference of the European Communication Association, Lisbon, 13.11.2014.
- Hamachers, A. (2014, July). [\*The operationalizability of narration. An attempt to empirically validate defining textual features\*](#). Paper presented at the annual conference of the International Society for the Empirical Study of Literature and Media, Torino, 21.07.–25.07.2014.
- Hamachers, A. (2014, July). [\*Non-invasive brain stimulation in 'Neuro Narratology'. Advantages, disadvantages, and applicability of tDCS and TMS\*](#). Paper presented at the annual conference of the International Society for the Empirical Study of Literature and Media, Torino, 21.07.–25.07.2014.
- Hamachers, Annika (2014, July): *How mutual is an audience's narrative intuition? An exploratory attempt to empirically validate defining narrative features*. Paper accepted for the annual conference of the International Association for Media and Communication Research, Hyderabad.
- Maleckar, B., & Hamachers, A. (2014, June). *This story has a point: Persuasion as a consequence of seeking the narrative meaning*. Paper presented at the StoryNet workshop "Narrative effects on the individual and the social", Budapest, 17.06.–28.06.2014.
- Hamachers, A. (2014, March). *Dissecting texts. An empirical attempt to validate defining narrative features*. Paper presented at the workshop "Empirical Approaches to Narrative" of the Center of Narrative Research, Wuppertal, 15.03.2014.
- Gehrau, V., & Hamachers, A. (2013, September). *Spezifika von Beobachtungsstudien in der Kommunikationswissenschaft. Eine Analyse von Fachzeitschriftenpublikationen 2000 bis 2010*. Paper presented at the annual conference of the DGPK-Fachgruppe 'Methoden der Publizistik- und Kommunikationswissenschaft', Münster, 28.09.2013.
- Hamachers, A., & Gehrau, V. (2013, September). *Die aktuelle Stellung der Beobachtung in der Kommunikationswissenschaft. Eine Metaanalyse empirischer Beiträge aus 21 einschlägigen Fachjournals über die Jahre 2000 bis 2010*. Paper presented at the annual conference of the DGPK-Fachgruppe 'Methoden der Publizistik- und Kommunikationswissenschaft', Münster, 28.09.2013.
- Hamachers, A. (2011). [\*Erzählen als Kern von Unterhaltung. Zur Operationalisierbarkeit von Narration in der Kommunikationswissenschaft\*](#). Münster: WWU. [Thesis]
- Blöbaum, B. (Ed.) (2008). *Hauptsache Medien: Berufsbiographische Interviews mit Journalisten, PR-Praktikern und Werbern*. Münster: Lit. [Co-author]

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## TEACHING

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**UNIVERSITY COURSES***Internship preparation*

practical course, undergraduate level, Spring 2012, 2014 & Fall 2012, 2013, University of Münster

*Introduction into Communication Research*

seminar, undergraduate level, Spring 2013, University of Münster

*Data analysis with R*

workshop, graduate and postgraduate level, Fall 2012 & Spring 2013, University of Münster

*Advanced multivariate statistics*

lecture, graduate level, Fall 2015, University of Münster

*Data visualization – from Excel to d3.js*

practical course, graduate/undergraduate level, Spring 2016, University of Münster

*Interpersonal Communication and Leadership*

seminar, graduate level, Summer 2017, German Police University

*Quantitative vs. Qualitative Research*

lecture, graduate level, Summer 2018, German Police University

*Social Science Research Methods*

lecture, graduate level, Summer 2018 & Summer 2021, German Police University

*Extremist Instrumentalization of the Islam*

lecture, graduate level, Summer 2022, German Police University

**INVITED LECTURES***Umgang mit extremistischen Inhalten in der Online-Community. Ergebnisse einer repräsentativen Umfrage*

Talk in the context of the expert panel 'Islamismus im Netz - Wissenschaft und Praxis' at the Bundeszentrale für politische Bildung, 26. September 2018, Bonn

*Story Points – Problems Operationalizing 'Narration'*

Talk at the graduate level seminar of Dr. Barbara Maleckar, Fall 2014, University of Augsburg

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## FURTHER ACTIVITIES

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**MEMBERSHIPS**

- ◆ International Communication Association (ICA)
- ◆ European Communication Association (ECREA)
- ◆ Deutsche Gesellschaft für Publizistik und Kommunikationswissenschaft (DGPK)
- ◆ International Society for the Empirical Study of Literature and Media (IGEL)

**REVIEWING EXPERIENCE**

- ◆ International Communication Association (ICA) annual conference, since 2013
  - Mass Communication division
  - Information Systems division
  - Communication and Technology division
  - Popular Communication division
- ◆ International Journal for Conflict and Violence, since 2019

**UNIVERSITY COMMITTEE SERVICES**

- ◆ Admission committee for the MA program, 2013 & 2014, University of Münster
- ◆ Appointments committee for the professorship of Dr. Jens Woelke, 2014, University of Münster
- ◆ Selection committee for the PROMOS grant, 2012–2014, University of Münster