

# ALEKSANDRA URMAN

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## EMPLOYMENT

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- Postdoctoral researcher** *Since September 2020*  
Social Computing Group (Department of Informatics)  
University of Zurich
- Postdoctoral researcher** *July 2020 - June 2021*  
Institute of Communication and Media Studies  
University of Bern
- Research assistant** *June 2018 - June 2020*  
Institute of Communication and Media Studies  
University of Bern

## EDUCATION

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- PhD (summa cum laude)** *June 2018- May 2020*  
Institute of Communication and Media Studies  
University of Bern  
Dissertation Title: "Polarisation on Social Media in Different National Contexts"  
Supervisor: Prof. Dr. Silke Adam; Second Reviewer: Prof. Dr. Peter Van Aelst
- MA in Political Science** *2016-2017*  
Central European University, Budapest
- BA in Asian Studies** *2012-2016*  
Higher School of Economics, Moscow

## PEER-REVIEWED PUBLICATIONS

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1. *Urman, A., Makhortykh, M., Ulloa, R. (2022). Auditing the representation of migrants in image web search results.* Humanities and Social Sciences Communications. <https://doi.org/10.1057/s41599-022-01144-1>
2. Makhortykh, M., *Urman, A., Münch, F., Heldt, A., Dreyer, S., Kettemann, M. (2022). Not all who are bots are evil: A cross-platform analysis of automated agent governance.* New Media and Society. <https://doi.org/10.1177/14614448221079035>
3. de Leon, E., Makhortykh, M., Gil-Lopez, T., *Urman A., Adam, S. (2022). News, Threats, and Trust: How COVID-19 News Shaped Political Trust, and How Threat Perceptions Conditioned This Relationship.* The International Journal of Press/Politics. <https://doi.org/10.1177/19401612221087179>
4. Ulloa, R., Makhortykh, M., *Urman, A. (Accepted, Forthcoming). Scaling up Search Engine Audits: Practical Insights for Algorithm Auditing.* Journal of Information Science.
5. Makhortykh, M., *Urman, A., Wijermars, M. (2022). A story of (non)compliance, bias, and conspiracies: How Google and Yandex represented Smart Voting during the 2021 parliamentary elections in Russia.* Harvard Kennedy School Misinformation Review. <https://doi.org/10.37016/mr-2020-94>
6. Boeker, M., *Urman, A. (Accepted, Forthcoming). An Empirical Investigation of Personalization Factors on TikTok.* The Web Conference 2022 Proceedings. Preprint available at <https://arxiv.org/abs/2201.12271>
7. *Urman, A., Ionescu, S., Garcia, D., Hannak, A. (2022). The Politicization of Medical Preprints on Twitter during the Early Stages of COVID-19 Pandemic.* Journal of Quantitative Description: Digital Media. <https://doi.org/10.51685/jqd.2022.003>
8. Makhortykh, M., *Urman, A., Gil-Lopez T., Ulloa R. (2021). To track or not to track: Examining perceptions of online tracking for information behavior research.* Internet Research. <https://doi.org/10.1108/INTR-01-2021-0074>

9. *Urman, A., Ho, J.C., Katz, S. (2021). Analyzing protest mobilization on Telegram: the case of 2019 Anti-Extradition Bill movement in Hong Kong.* PLOS One. <https://doi.org/10.1371/journal.pone.0256675>
10. Makhortykh, M., *Urman, A., Ulloa, R. (2021). Hey, Google, is this what the Holocaust looked like? Auditing algorithmic curation of visual historical content on Web search engines.* First Monday. <https://dx.doi.org/10.5210/fm.v26i10.11562>
11. *Urman, A., Makhortykh, M., Ulloa, R. (2021). The Matter of Chance: Auditing Web Search Results Related to the 2020 U. S. Presidential Primary Elections Across Six Search Engines.* Social Science Computer Review. <https://doi.org/10.1177/08944393211006863>
12. Christner C., *Urman, A., Adam S., Maier M. (2021). Automated Tracking Approaches for Studying Online Media Use: A Critical Review and Recommendations.* Communication Methods and Measures. <https://doi.org/10.1177/08944393211006863>
13. Makhortykh, M., *Urman, A., Ulloa, R. (2021). Detecting race and gender bias in visual representation of AI on web search engines.* In L. Boratto, S. Faralli, M. Marras, G. Stilo (Eds.), *Advances in Bias and Fairness in Information Retrieval* (pp. 36–50). Springer International Publishing. [https://doi.org/10.1007/978-3-030-78818-6\\_5](https://doi.org/10.1007/978-3-030-78818-6_5)
14. *Urman, A., Makhortykh, M., Ulloa, R. (2021). Auditing source diversity bias in video search results using virtual agents.* Third Workshop on Fairness, Accountability, Transparency, Ethics and Society on the Web (FATES). Companion proceedings of the 2021 Web Conference. <https://doi.org/10.1145/3442442.3452306>
15. *Urman, A., Makhortykh, M. (2021). There can be only one truth: Ideological segregation and online news communities in Ukraine.* Global Media and Communication. <https://doi.org/10.1177/17427665211009930>
16. *Urman, A., Katz S. (2020). What they do in the shadows: examining the far-right networks on Telegram.* Information, Communication & Society. <https://doi.org/10.1080/1369118X.2020.1803946>
17. Makhortykh, M., *Urman, A., Ulloa, R. (2020). How search engines disseminate information about the coronavirus and why they can do better.* Harvard Kennedy School Misinformation Review. <https://doi.org/10.37016/mr-2020-017>
18. *Urman, A. (2020). Context matters: political polarization on Twitter from a comparative perspective.* Media, Culture and Society. <https://doi.org/10.1177/0163443719876541>
19. *Urman, A. (2019). News Consumption of Russian Vkontakte Users: Polarization and News Avoidance.* International Journal Of Communication, 13, 25. <https://ijoc.org/index.php/ijoc/article/view/11161>

## AWARDS, SCHOLARSHIPS AND FUNDING

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**Research Grant, An Overview of the Swiss Political Telegram User Communities and their Role in the Distribution of Toxic Speech, 46160CHF** *June 2021-May 2022*

Co-PI Together with Stefan Katz  
Federal Office of Communications, Switzerland

**Research Grant, Algorithmic curation of (political) information and related biases, 2800CHF** 2020

Co-PI Together with Dr. Mykola Makhortykh  
Förderverein Kommunikations- und Medienwissenschaft der Universität Bern

**EuroCSS Datathon Challenge Winner** *September 2019*

Together with Stefan Katz, Neal Tsur  
The event took place at ETH Zurich

**Full grant for participation in SICSS Bamberg** *August 2019*

Alfred P. Sloan & Russell Sage Foundations

**Top Student Paper Award, ICA** *May 2019*

Political Communication Division of International Communication Association, ICA Annual Conference

<b>CEU Master's Scholarship</b> Covering tuition fees, housing and a monthly stipend of 50,000 HUF	2016-2017
<b>Jaguar-Landrover Scholarship for Extracurricular Activities</b> Higher School of Economics & Jaguar-Landrover, Moscow	Spring 2015
<b>HSE Merit-based Scholarship, 100% of Tuition Fees</b> Higher School of Economics, Moscow	2012-2016

## TEACHING

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**Social Computing.** Invited Instructor for the lectures on Algorithm Auditing; Spring Semester 2021 and 2022, Undergraduate Course, University of Zurich (in Spring 2021 taught virtually due to the COVID-19 pandemic).

**Introduction to Computational Social Science with Applications in R.** Co-instructor, course co-designer (together with Max Pellert); Fall Seminar in Computational Social Science, 1-week block course, GESIS (taught virtually due to COVID-19 pandemic).

**Blame it on the internet? How the world wide web changed the world in three decades.** Instructor, course designer; Spring Semester 2021, Undergraduate course, University of Bern (taught virtually due to COVID-19 pandemic).

**Political Communication and the Internet.** Instructor, course designer; Fall Semester 2019, Undergraduate course, University of Bern. Average teaching evaluation score: 4.75 out of 5.

**Machine Learning for Social Science Research.** Instructor, course designer; Fall Semester 2019, Open to BA and MA students, University of Bern. Average teaching evaluation score: 4.69 out of 5.

**Introduction to R for Communication Research.** Co-Instructor (with Dr. Ueli Reber, Dr. Tom Haeussler, Dr. Marlene Kammerer); Fall Semester 2019; 2020, Block course, University of Bern.

**Social Media Analysis Using R.** Instructor, course designer; Fall Semester 2018, Undergraduate course, University of Bern. Average teaching evaluation score: 4.2 out of 5.

## FURTHER EDUCATION

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<b>Network Science Project Course</b> ETH Zurich, Switzerland	Spring 2020
<b>Network Modeling Course</b> ETH Zurich, Switzerland	Fall 2019
<b>Summer Institute in Computational Social Science</b> University of Bamberg, Germany	August 2019
<b>Text Mining with R</b> University of Hohenheim, Germany	June 2019
<b>Global Business Journalism Program</b> Tsinghua University, China	Fall 2017
<b>Exchange Program</b> Kookmin University, South Korea	Fall 2015

## CONFERENCE PRESENTATIONS

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Conferences: ICA 2019, 2020, 2021, 2022; EuroCSS 2019, 2020; AoIR 2020; IC2S2 2019, 2021; Sunbelt 2020; DACH21 2020; Digital Societies 2019; FATES Workshop 2021; BIAS Workshop 2021; ASEES 2021. Full list of presentations is available upon request.

## SUPERVISION EXPERIENCE

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**Master's Basic Module:** "Biases and Fairness in the Use of Machine Learning for Personalized Nutrition" - Department of Informatics, University of Zurich (2021)

**BSc Thesis:** "Empirical Analysis of the Recommendation Algorithm of TikTok" - Department of Informatics, University of Zurich (2021)

**BSc Thesis:** "Measuring Differences in Rating Behaviours on Hotel Booking Websites by Demographics" - Department of Informatics, University of Zurich (2021)

**BA Thesis:** "Persuasion in Online Debates - A Study of the r/changemyview Subreddit" - Department of Social Sciences, University of Bern (2020)

## SKILLS

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### Research methods:

*Advanced knowledge, extensive experience:* network analysis and modeling, quantitative text analysis, machine learning, web scraping, algorithm auditing.

*Medium experience and knowledge:* data visualization, statistics, survey-based research, focus groups-based research, experiments for social science research.

**Programming:** R, basic Python.

**Languages:** Russian (native); English (fluent - C2, Cambridge Exams CPE Certificate); German (Goethe-Zertifikat B1), Spanish (DELE B1), French and Korean (intermediate).

## EXTERNAL INVITED TALKS

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**Gender Equitable Futures in Technology: Tackling Bias** November 2021, Invited Speaker at the Panel Discussion, organized by EqualsEU project and TechSec at IHEID, Geneva, Switzerland

**The politicization of medical preprints online during the early stages of COVID-19 pandemic.** July 2021, Guest Lecture at the "Behavioral Digital Trace Data in Response to the COVID-19 Pandemic" Summer School, organized by the Social ComQuant Project

**Russian Protests of 2021 on TikTok and Telegram.** February 2021, Invited Speaker at the Virtual Event "Navalny and the Kremlin: Politics and Protest in Russia" co-hosted by the Harriman Institute at Columbia University and the New York University Jordan Center for the Advanced Study of Russia, the US

**(Un)reliable and (un)interpretable narrators? How search engines represent COVID-19 via text and image search results.** December 2020, Guest Lecture together with Dr. Mykola Makhortykh, University of Passau, Germany

**Computational Methods for Social Science Research.** November 2020, Guest Lecture, University of Fribourg, Switzerland

**Auditing Algorithmic Content Curation Using Virtual Agents.** November 2020, Guest Lecture together with Dr. Mykola Makhortykh and Dr. Roberto Ulloa, University of Koblenz-Landau, Germany

## REVIEWER EXPERIENCE AND OTHER SERVICE, PROFESSIONAL MEMBERSHIPS

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*Ad-hoc reviewer* for the following journals: Information, Communication and Society; Social Media and Society; New Media and Society; Journal of Information Technology and Politics; HKS Misinformation Review; Journal of Communication; International Journal of Communication; Communication Monographs; Social Science Computer Review; SAGE Open; Comunicar; Social Network Analysis and Mining; Political Communication.

I was a *program committee member* and a Datathon co-organizer at IC2S2 2021 (hosted by ETH Zurich).

I was a *Mittelbau Board* (a body representing early- and mid-career researchers) member at the Department of Social Sciences of the University of Bern in 2020-2021.

I am a *member* of International Communication Association and of Digital Society Initiative of the University of Zurich.

## MEDIA COVERAGE

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My research on far-right communities on Telegram has been covered by [Wired UK](#), [The Economist](#), [SRF \(Einstein\)](#), [Le Temps](#) and [NZZ](#). My article about political polarization on Twitter was referenced by [FiveThirtyEight](#). Research on Telegram-based activity in Hong Kong during the Anti-ELAB protests of 2019 was mentioned in [The Washington Post](#), and research on the prevalence of conspiratorial content in web search results was covered by [The New York Times](#), [The Moscow Times](#), [Input](#) and [Meduza](#).