

## RESEARCH AREAS

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My research interests center around the critical study of ethical and political impacts of algorithmic systems as well as how they are co-produced with culture and discourse. In particular I am concerned with how to audit such systems shedding light on values baked into them while considering their temporalities. I mainly employ qualitative and mixed methods in my research and use my background in both computer science and science and technology studies (STS) to inform socio-technical analysis grounded in literatures such as data, surveillance and infrastructure studies, sociology of risk, time and welfare as well as fairness, transparency, accountability and ethics in socio-technical systems.

## EDUCATION

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<b>University of Michigan</b> Ph.D. in Information Science, Advisors: Silvia Lindtner and Christian Sandvig	Ann Arbor, US 2018–Current
<b>Technical University of Vienna (TU Wien)</b> M.Sc. in Computational Intelligence – Thesis: “Network Analysis on the Austrian Media Corpus”	Vienna, AT 2015–2021 (expected)
<b>University of Waterloo</b> Student Exchange	Waterloo, CA Fall 2015
<b>Télécom ParisTech</b> Student Exchange	Paris, FR Nov 2014
<b>Ecole polytechnique fédérale de Lausanne</b> Student Exchange	Lausanne, CH Spring 2014
<b>Technical University of Vienna (TU Wien)</b> B.Sc. in Software & Information Engineering, with high distinction – Thesis: “Efficient Run-Length Encoding for Pipelined MPI Reduction Operations”	Vienna, AT 2010–2015
<b>Technical High School (HTL) Wiener Neustadt</b> Technical High School diploma in IT and Business – Thesis on usable home automation with Scala. – Founded robotics team and successfully participated in international competitions.	Wiener Neustadt, AT 2005–2010

## EXPERIENCE

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<b>Austrian Academy of Sciences</b> Research Intern at Institute of Technology Assessment – Conducted socio-technical analysis of algorithmic job seeker profiling in Austria.	Vienna, AT Summer 2020
<b>University of Michigan</b> Research Assistant at School of Information – Investigated perceptions of accuracy and transparency in emotion recognition algorithms with Prof. Andalibi.	Ann Arbor, US Summer 2020
<b>Agency for Quality Assurance and Accreditation Austria</b> Student reviewer at Management Center Innsbruck (MCI)	Vienna, AT April - June 2018

- Involved in the accreditation of the degree program “Digital Business & Software Engineering”.

### **Austrian Academy of Sciences**

Researcher at Austrian Center for Digital Humanities

Vienna, AT

September 2016 - June 2018

- Examined the Austrian Media Corpus, a unique collection encompassing the last three decades of Austrian media coverage, using data science methods.

### **National Institute of Informatics**

Research Intern at Knowledge Sharing Group

Tokyo, JP

February - May 2017

- Enriched Austrian Media Corpus with semantic knowledge mainly from Wikidata.

### **Research Studios Austria**

Junior Researcher at Smart Agent Technologies

Vienna, AT

September 2012 - January 2014

- Planned and implemented architecture, communication protocols, and matching of postings in the “Web of Needs” project: [urlhttp://www.webofneeds.org](http://www.webofneeds.org).

### **Technical University of Vienna (TU Wien)**

Research Intern at Institute of Computer Aided Automation

Vienna, AT

Summer 2009/2010

- Developed a usable interface for controlling automated homes and a search-support tool for the university library.

## **PUBLICATIONS**

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### **Peer-Reviewed Journal Articles**

Allhutter, D., Cech, F., Fischer, F., **Grill, G. (equal co-authorship)**, Mager, A., “Algorithmic profiling of job seekers in Austria: how to make austerity politics effective”, *Frontiers in Big Data: Critical Data and Algorithm Studies*, January 2020

### **Peer-Reviewed Law Journal Articles**

Wagner, B., Lopez, P., Cech, F., **Grill, G.**, Sekwenz, M., “Der AMS-Algorithmus. Transparenz, Verantwortung und Diskriminierung im Kontext von digitalem staatlichem Handeln”, *JURIDIKUM 2020, Issue 2, June 2020*

### **Refereed Conference Proceedings**

Kleedorfer, F., Busch, C.M., **Grill, G.**, Khosravipour, S., Salcher, F., Tus, A., Gstrein, E., “Web of Needs – A New Paradigm for E-Commerce”, *15th IEEE Conference on Business Informatics*, July 2013

### **Under Review/Resubmission**

**Grill, G.**, Andalibi, N., “Exploring Algorithmic Imaginaries of Emotion Recognition: Social Media Users’ Beliefs on and Expectations of Accuracy and Transparency”

**Grill, G.**, “Future protests made risky: Examining social media based civil unrest prediction research and technology”

### **Workshops and Extended Abstracts**

**Grill, G.**, “Researching online labor strike and protest prediction technologies”, *AoIR Selected Papers of Internet Research*, October 2020

**Grill, G.**, “The science of “civil unrest prediction“ meets social media”, *Surveillance Studies Summer Seminar*, June 2019

**Grill, G.**, “Towards a critical review of protest and strike prediction research”, *17th European Conference on Computer-Supported Cooperative Work, Workshop: Materializing Activism*, June 2019

**Grill, G.**, Neidhardt, J., Werthner, H., “Network Analysis on the Austrian Media Corpus”, *3rd Vienna young Scientists Symposium*, June 2017

## Presentations

**Grill, G.**, Fischer, F., Allhutter, D., Mager, A., Cech, F., “Algorithmic profiling of job seekers in Austria: how to make austerity politics effective”, *Society for social studies of science - Annual Meeting, 2020, August 2020*

Allhutter, D., Mager, A., Cech, F., Fischer, F., **Grill, G.**, “Algorithmic profiling of job seekers in Austria: how to make austerity politics effective”, *4th European Technology Assessment Conference, November 2019*

**Grill, G.**, Sandvig, C., “The science of ”civil unrest prediction“ meets social media”, *Society for social studies of science - Annual Meeting, 2019, September 2019*

## Press Coverage and Public Scholarship

My research on unemployed profiling has been cited among others in publications of ORF (Austrian national public service broadcaster), Ö1 (Austrian public radio), Office of Technology Assessment at the German Bundestag (office at the German federal parliament), Der Standard (Austrian newspaper), Futurezone/Kurier (Austrian newspaper), APA Science (Austrian press agency) and AK Oberösterreich/A&W Blog (Austrian chamber of labour).

## TEACHING

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### Lecturer

**Guest Lecture** at TU Wien (AT) Spring 2020  
*Critical Theory of Media and Informatics*

**Organizer/Lecturer** at TU Wien (AT) Spring 2016/17/18  
*Critical Algorithm Studies (Seminar Lecture)*

- Developed course concept and syllabus: <https://algorithmstudies.wordpress.com>.
- The seminar is/was electable for computer science master students. Seminar still held by other instructors.

**Lecturer** at TU Wien (AT) Summer 2015  
*Welcome.TU.Code*

- Lecture series for unaccompanied, minor refugees in Austria.

### Graduate Student Instructor

**SIADS 503: Data Science Ethics** at University of Michigan (US) Fall 2020

**SIADS 501: Being a Data Scientist** at University of Michigan (US) Fall 2020

**SI 507: Programming II** at University of Michigan (US) Spring 2020

**SI 506: Programming I** at University of Michigan (US) Fall 2019

### Teaching Assistant

**Interactions of Society and Technology** at TU Wien (AT) Spring 2015/2016

**Basics of Human Computer Interaction** at TU Wien (AT) Spring 2015/2016

**Algorithmics and Datastructures II** at TU Wien (AT) Spring 2013

**Algorithmics and Datastructures I** at TU Wien (AT) Spring 2013

## SCHOLARSHIPS AND AWARDS

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Rackham Conference Travel Grant (\$ 1050) June 2019

IG Wien Pioneer Scholarship, European Forum Alpbach August 2016

Volunteer of Fall 2015, Federation of Students (University of Waterloo, CA) November 2015

Scholarship for Technology Symposium, European Forum Alpbach August 2014

Foundation Stipend, TU Wien	2013, 2014
Excellence Scholarship, Informatics Faculty (TU Wien)	2012, 2013
4th, 9th place at Catalysts Coding Contest (Hagenberg € 700, Vienna € 500)	2012
Finals Dance at RoboCup Junior - Singapore	June 2010
Newcomer Award, Finals Dance at RoboCup Junior - Graz	June 2009

## SKILLS

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- **Languages:** English (fluent), German (fluent)
- **Social Science:** Qualitative Methods, Ethnography, Social Network Analysis
- **Computer Science:** Machine Learning, NLP, Parallel & Distributed Computing, Compilers, Security, Databases, Logic, HCI, Functional Programming
- **Technologies:** Python, Spark, Haskell, Scala, Java, C#, F#, C, C++

## SERVICE AND EXTRACURRICULAR ACTIVITIES

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### Reviewing

Conference on Human Factors in Computing (CHI)	2020
Journal of Collaborative Computing and Work Practices (JCSCW)	2020

### University Service Activities

PhD Peer Mentor at <b>University of Michigan</b>	2019/20
Presenter at <b>Lange Nacht der Forschung (public science event)</b>	April 2018
Writer at <b>Progress - Magazin der ÖH</b>	2018
Co-organizer at <b>Seminar on “the construction of gender” at TU Wien</b>	2013
Elected member at <b>student council of Faculty of Informatics, TU Wien</b>	July 2013 - June 2015
Student Volunteer at <b>International Conference on Agile Software Development</b>	June 2013
Member of <b>Java Student User Group - Organizers Team</b>	June 2013
Member of various committees at <b>Faculty of Informatics, TU Wien</b>	July 2011 - 2017
<i>Faculty council, curricula board, committee for the faculty road map 2016-18, several appointment committees for professors and habilitation committees.</i>	

### Talks

<b>Algorithmic Fairness</b> at Privacy Week 2017 (AT)	October 2017
<b>The politics of Algorithms</b> at The Big Data Game, Steyr (AT)	November 2016
<b>Governing Algorithms made in Austria</b> at Privacy Week 2016 (AT)	October 2016

### Additional Service Activities

Organizer at <b>Model European Union Vienna 2018</b>	2018
<i>Co-organized simulation of EU parliament and council with about 116 international participants.</i>	
Member at <b>Standing Committee at European Forum Alpbach Network</b>	2017
<i>Curation of program for more than 700 international scholarship holders at European Forum Alpbach.</i>	
Co-organizer at <b>Vienna Code Poetry Slam</b>	2015, 2016, 2017
<i>Literature meets programming: <a href="http://codepoetry.at">http://codepoetry.at</a></i>	
Co-organizer at <b>Devfest Vienna</b>	2013, 2014
<i>DevFests are large-scale community events: <a href="http://devfest.at">http://devfest.at</a></i>	

Organizer/Speaker of/at **“HTL, what’s next?”**

May 2013

*Talk series by alumni of HTL Wiener Neustadt about careers after graduation.*

Student Volunteer at **International Conference on Agile Software Development**

June 2013

*Talk series by alumni of HTL Wiener Neustadt about careers after graduation.*

Founding member of **F-WuTs**

July 2010 - 2018

*Association for supporting high school students in robotics: <http://www.robo4you.at>*