**Applicant's interest in AI**

I am applying to the NBER Doctoral Student Workshop on Economics of Artificial Intelligence to continue translating my interest in artificial intelligence into research for my dissertation. My own research interest in AI relates to the economics of competition, a field in which I specialized during my masters and where I was active as a practitioner later.

Having attended last year's conference, I have been able to formulate a research agenda that contributes to two strands of the literature: in an early stage project, I investigate and measure the importance of economics in competition law decisions from over 20 years. To this end, I leverage techniques from natural language processing, such as word embeddings and Latent Dirichlet Allocation, contributing to the growing literature on machine learning in economics.

Another research idea that I am currently developing follows the European Union's evolving regulation of digital markets, especially through the Digital Markets Act, where the regulation on so-called "gatekeepers" is inextricably linked to the use of AI that fuels the "core platform services" such as search and social media, which policy makers seek to regulate. In particular, I investigate the impact of regulation to maintain contestability in these markets, contributing to the literature on artificial intelligence in industrial organization.

I pursue my interests in AI in a related reading group in my PhD program to exchange new ideas with likeminded peers. Furthermore, I work as research assistant in an interdisciplinary cluster on technology in society. In addition, through my advocacy as Head of Research of the Women in Economics Initiative, I have become increasingly aware of gender bias in the application of algorithms to human life and human data. I follow closely the literature on this topic.

# Philip Hanspach

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## EDUCATION

### EUROPEAN UNIVERSITY INSTITUTE | PhD in Economics

Since Sep 2019 | Florence, IT

- Master of Research in Economics (awarded August 2020)
- Supervisors: Giacomo Calzolari and David K. Levine
- Research Assistant, interdisciplinary cluster "Technological Change and Society" (since Nov 2020)

### TOULOUSE SCHOOL OF ECONOMICS | Master in Economics

Sep 2015 - Sep 2017 | Toulouse, FR • Grade: 17.982/20 ("Mention Très Bien"/"With Distinction")

- Master thesis: "Gains From Trade In Electricity Markets: The Case Of France and the UK", supervised by Prof. Farid Gasmi
- Second-year program: Economics of Markets and Organizations (focus on industrial organization and competition policy)
- Coursework (selection): Air Transport Economics, Competition and Law, Data Bases, Econometrics, Energy Markets

### NATIONAL UNIVERSITY OF SINGAPORE | Study-integrated semester abroad

Aug-Dec 2014 | Singapore, SGP

- Coursework: Economy of Modern China, ASEAN Economies, Money and Banking

### UNIVERSITY OF BONN | Volkswirtschaftslehre B.Sc. (B.Sc. in Economics)

Aug 2012 - Jul 2015 | Bonn, GER • Grade: 1.5 ("Sehr gut"/"Very Good")

- Bachelor thesis: "Executive Compensation in Germany", supervised by Prof. Hendrik Hakenes

## EXPERIENCE

### NERA ECONOMIC CONSULTING GMBH | Research Officer, promoted to Economic Analyst

Oct 2017 - Sep 2019 | Berlin, GER

- Contributed to over 10 projects dealing with merger clearance and cartel damages claims (EU/national)
- Communication with clients and their legal counsel
- Conducted a wide range of analytical tasks, including econometric analyses of time-series and panel data in large and small samples. Independent writing of and contribution to economic reports to be submitted for litigation
- Industries I have worked with: chemicals, sugar, public transport, FMCG, automotive, telecommunication, payment cards

### TOULOUSE SCHOOL OF ECONOMICS | Research Assistant

Apr 2017 - Jul 2017 | Toulouse, FR

- Analyzed and organized micro-level data on household expenditure for a project on consumer behavior. Researched appropriate econometric methods for analysis of panel data

### UNIVERSITÉ TOULOUSE 1 - CAPITOLE | Teaching Assistant

Jan 2017 – Apr 2017 | Toulouse, FR

- Gave tutorials and corrected exams (in French) for a first-year macroeconomics class

### SÜDWESTTEXTIL E.V. | Intern

May 2016 – Jul 2016 | Stuttgart, GER

- Directly supported the director of a trade association representing the textile and clothing industry in south-west Germany

### INSTITUTE FOR FINANCIAL ECONOMICS AND STATISTICS, UNIV. OF BONN | Teaching Assistant

Apr 2015 – Jul 2015 | Bonn, GER

- Gave tutorials in undergraduate-level Corporate Finance. Received an award for teaching quality by student choice

## SELECTED SKILLS

Experienced
MS Office • Stata • Matlab
Intermediate
Python • R • QGIS
Certificates
Coursera online course in Machine Learning

## LANGUAGES & INTERESTS

German: native | English: fluent (C1) | French: fluent (B2) | Italian: beginner (A2)

Women in Economics Initiative, Head of Research since 2019
The TSEconomist (student magazine), Organization Chief (2016-2017)
Stiftung der deutschen Wirtschaft gGmbH (Foundation of the German Economy), Scholarship of academic excellence, 2013 - 2017
The Bonn Journal of Economics (student run academic journal), Editor (2013-2014)