

ECONOMICS OF DIGITIZATION MEETING — APPLICATION

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I am a second year economics PhD student at UC Berkeley. I have finished the core sequences in microeconomics, macroeconomics, econometrics and economic history. Also, I have completed the full year graduate sequence in Psychology and Economics (with Matthew Rabin and Stefano DellaVigna) as well as field courses in labor economics (with David Card and Jesse Rothstein) and a graduate level course on Machine Learning. I am prepared and excited to do independent research.

Digitization is the the Industrial Revolution of my generation. I believe it has started affecting society and will continue to do so in the next decades. Let me give you two examples to illustrate the kind of questions that fascinate me about digitization.

Tracking of Labor Inputs

Digitization made it possible for individuals to collaborate remotely. A nice feature of remote collaboration is that individual contributions are recorded. For instance, in software development version control systems track each programmer's code contribution to a project. This facilitates fine grained measurements of a worker's marginal product. In classical models we would believe that better monitoring leads to higher worker volatility, higher wage discrimination and new signalling incentives. High resolution data allows us to test these models on a precise scale.

Volunteering for Communities

The internet has given rise to communities that harvest expert knowledge from a large group of people (Wikipedia, Stackexchange) or collaborate on product development (GitHub). Many participants invest multiple hours of unpaid work in these communities, sometimes despite having the possibility of being paid to do so. What drives individuals to donate their time and work? What are the effects of volunteering on a volunteer's labor market outcomes? We still lack good models to answer these questions, but digital communities now give us **the data**.

I am excited to learn more about this young research branch and would be excited to participate at the Economics of Digitization meeting in March.

David J. Birke

CONTACT INFORMATION	David Birke An den Röthen 23 61381 Friedrichsdorf Germany	phone: +1 321 806 7329 e-mail: djbirke@berkeley.edu
PERSONAL	Citizenship: German Date of birth: January 30, 1991	
EDUCATION	University of California, Berkeley Ph.D. Student in Economics	since Fall 2014
	University of Mannheim Master of Science Economics (with distinction)	August 2011 – July 2013
	University of California, Berkeley Exchange year, graduate coursework in Microeconomics, Macroeconomics and Psychology & Economics	August 2011 – May 2012
	University of Mannheim Bachelor of Science Economics	August 2008 – July 2011
	University of Copenhagen Exchange semester (Erasmus), graduate coursework	Fall 2010
	Goethe University Frankfurt <i>Schülerstudium</i> (pupil studies) Exams in economics and business informatics	2005 – 2006
PROFESSIONAL EXPERIENCE	University of Chicago Becker Friedman Institute Research Professional, Prof. Emily Oster	September 2013 – May 2014
	University of Mannheim Teaching assistant, Principles of Economics	Fall 2012
	AXA Konzern AG Internship, Value- and Risk Management <i>Analysis and consolidation of two data conversion systems.</i>	June – August 2010
	University of Mannheim Research assistant, Prof. Uta Pigorsch <i>Analysis of S&P 500 data, generation of representative portfolios.</i>	February – June 2010
	Deutsche Bank AG Internship, Inhouse Consulting <i>Data analysis for growth initiative in corporate clients sector.</i>	July – August 2007
	Interactive Data Managed Solutions AG Internship, Product Management <i>Programming a PHP demo application for the bond search engine.</i>	June – August 2006
SOCIAL COMMITMENT	Member of the student council (2008–2013). Vice President of residence hall with 400 occupants (2008/09).	
LANGUAGES	German (native), English (fluent), Latin (<i>Latinum</i>).	
PROGRAMMING	Python, Prolog, Perl, R, Stata, Matlab.	
SCHOLARSHIPS	Doctoral scholarship, Graduate School of Economic and Social Sciences, Mannheim (2012/13). DAAD scholarship for one year exchange at University of California, Berkeley (2011/12). <i>Gebührenstipendium</i> (tuition scholarship), University of Mannheim (2009/10). Scholar of the German National Academic Foundation (2010–2013).	