

# Matthew Bietz

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Matthew Bietz is a guest researcher with the [theme DATA](#). He is an Assistant Research Professor in the Department of Informatics at the University of California, Irvine.



His primary research areas are Computer Supported Cooperative Work (CSCW) and Science and Technology Studies (STS). He received his Ph.D. from the University of Michigan School of Information in 2008, and did his post-doctoral research in the department of Human Centered Design and Engineering at the University of Washington.

## **Why are you involved in the theme data?**

My research interests align very well with the DATA Theme. Universities are being disrupted by data. We have more data than ever before. In the 17th century science was transformed by new tools like microscopes and telescopes. Today we have new tools like high-performance computing, digital sensors, and machine learning that could lead to similar transformations in the way we do science. The DATA Theme is an opportunity to bring together key stakeholders from across the University to better understand, prepare for, and engage with these exciting changes.

## **What do you hope to contribute?**

In my research, I have studied data practices in a number of different academic disciplines. I have also had a chance to work in a number of international settings. I hope that my broad perspective can be useful in conversations with researchers from Lund University as they consider their own data challenges.

## **What do you hope to get out of your stay?**

I am excited to work with Lund faculties and learn more about research in Sweden. Lund University and the DATA theme participants are leading the way in data management and policy, computational big data approaches, and large-scale scientific infrastructures. I expect my time at the Pufendorf IAS to push my own research in exciting ways.

### **What are your research interests?**

My research is mostly focused on data-centric collaboration. In other words, I look at the ways that groups of people work together with data.

When I was a doctoral student at the University of Michigan, I worked with HIV/AIDS researchers. They were conducting international collaborations with sites in the United States, Europe, and southern Africa. Just moving their scientific data across long distances was a challenge. But I got interested in how to ensure that the data remained comparable and usable even when datasets traveled around so much. Since then I have worked with scientists in a number of fields, including genomics and metagenomics, marine ecology, astronomy, planetary exploration, software engineering, and public health, to name a few.

Recently I have been thinking about the ethics of using personal data in research. Data collection about people is becoming pervasive: we can't avoid it even if we try. This data has the power to transform our understanding of human behavior and health, but at what cost? I want us to be sure that the data is used fairly and ethically.

### **In all of my research, I'm interested in questions like:**

- \* How do we make sure data can be reused by people who weren't involved in collecting it?
- \* How do we build technological systems and infrastructures to support large-scale scientific data sharing and analysis?
- \* How do we use personal and pervasive data ethically?

### **What drives you?**

In a very broad sense, I'm driven by the question, "How do we know what we know?" When I learn a new fact, I also want to know how that fact came to be. In large part, that urge drives my interest in the inner workings of scientific research.

I also have a background in librarianship, and I very much feel that discipline's orientation toward helping people find and use the information they need. I want to make data more usable and useful in order to help researchers do better research.

I also see a potential threat to equality and human rights if we aren't careful about how we use data. Data-driven decisions are becoming the norm in social policy, medicine, and many other aspects of our daily lives. Right now many of data's impacts remain opaque, hidden inside complex databases and algorithmic black boxes. Data access, privacy, control, and literacy are key issues for civic engagement and social justice.

### **What are you working on right now?**

One of my current projects is a study of health data privacy. We asked people how they feel about their health data: who should have access to it, how should it be used (or not used), and how health data compares to other types of data in terms of privacy.

Here's a thought exercise:

would you rather have your genetic code or your account balance posted online? Right now we're busy analyzing data from interviews and focus groups to better understand how people think about these issues.

**Have you ever been to Lund/Sweden**

This is my first visit, and I'm loving it!

**[Watch a video with researcher Matthew Bietz.](#)**