

Q&A: Exploring the intricacies of designing software for research ethics

May 3 2022, by Rachel Gordon



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Data are arguably the world's hottest form of currency, clocking in zeros and ones that hold ever more weight than before. But with all of our personal information being crunched into dynamite for enterprise solutions and the like, with a lack of consumer data protection, are we all

getting left behind?

Jonathan Zong, a Ph.D. candidate in [electrical engineering](#) and [computer science](#) at MIT, and an affiliate of the Computer Science and Artificial Intelligence Laboratory, thinks consent can be baked into the design of the software that gathers our data for online research. He created Bartleby, a system for debriefing research participants and eliciting their views about social media research that involved them. Using Bartleby, he says, researchers can automatically direct each of their study participants to a website where they can learn about their involvement in research, view what data researchers collected about them, and give feedback. Most importantly, participants can use the website to opt out and request to delete their data.

Zong and his co-author, Nathan Matias, Ph.D., evaluated Bartleby by debriefing thousands of participants in observational and experimental studies on Twitter and Reddit. They found that Bartleby addresses procedural concerns by creating opportunities for participants to exercise autonomy, and the tool enabled substantive, value-driven conversations about participant voice and power. Here, Zong discusses the implications of their recent work as well as the future of social, ethical, and responsible computing.

Q: Many leading tech ethicists and policymakers believe it's impossible to keep people informed about their involvement in research and how their data are used. How has your work changed that?

A: When Congress asked Mark Zuckerberg in 2018 about Facebook's obligations to keep users informed about how their data is used, his answer was effectively that all users had the opportunity to read the privacy policy, and that being any clearer would be too difficult. Tech

elites often blanket-statement that ethics is complicated, and proceed with their objective anyway. Many have claimed it's impossible to fulfill ethical responsibilities to users at scale, so why try? But by creating Bartleby, a system for debriefing participants and eliciting their views about studies that involved them, we built something that shows that it's not only very possible, but actually pretty easy to do. In a lot of situations, letting people know we want their data and explaining why we think it's worth it is the bare minimum we could be doing.

Q: Can ethical challenges be solved with a software tool?

A: Off-the-shelf software actually can make a meaningful difference in respecting people's autonomy. Ethics regulations almost never require a debriefing process for online studies. But because we used Bartleby, people had a chance to make an informed decision. It's a chance they otherwise wouldn't have had.

At the same time, we realized that using Bartleby shined a light on deeper ethics questions that required substantive reflection. For example, most people are just trying to go about their lives and ignore the messages we send them, while others reply with concerns that aren't even always about the research. Even if indirectly, these instances help signal nuances that research participants care about.

Where might our values as researchers differ from participants' values? How do the power structures that shape researchers' interaction with users and communities affect our ability to see those differences? Using software to deliver ethics procedures helps bring these questions to light. But rather than expecting definitive answers that work in every situation, we should be thinking about how using software to create opportunities for participant voice and power challenges and invites us to reflect on

how we address conflicting values.

Q: How does your approach to design help suggest a way forward for social, ethical, and responsible computing?

A: In addition to presenting the [software tool](#), our peer-reviewed article on Bartleby also demonstrates a [theoretical framework](#) for data ethics, inspired by ideas in feminist philosophy. Because my work spans [software design](#), empirical social science, and philosophy, I often think about the things I want people to take away in terms of interdisciplinary bridges I want to build.

I hope people look at Bartleby and see that ethics is an exciting area for [technical innovation](#) that can be tested empirically—guided by a clear-headed understanding of values. Umberto Eco, a philosopher, wrote that "form must not be a vehicle for thought, it must be a way of thinking." In other words, designing software isn't just about putting ideas we've already had into a computational form. Design is also a way we can think new ideas into existence, produce new ways of knowing and doing, and imagine alternative futures.

The research was published in *Social Media + Society*.

More information: Jonathan Zong et al, Bartleby: Procedural and Substantive Ethics in the Design of Research Ethics Systems, *Social Media + Society* (2022). [DOI: 10.1177/20563051221077021](https://doi.org/10.1177/20563051221077021)

Provided by MIT Computer Science & Artificial Intelligence Lab

Citation: Q&A: Exploring the intricacies of designing software for research ethics (2022, May 3)
retrieved 17 April 2024 from

<https://techxplore.com/news/2022-05-qa-exploring-intricacies-software-ethics.html>

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