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Prof. Patricia Moy
Christy Cressey Professor of Communication
University of Washington
Box: 353740
Seattle, WA 98195

Dear Professor Patricia Moy and the Assistant Professor Search Committee,

I am writing to apply for a position as Assistant Professor of Communication at the University of Washington. I have also included the latest version of my curriculum vitæ. Letters of recommendation from Professors Eric von Hippel, Yochai Benkler, Tom Malone, and Mitch Resnick will arrive separately. As per the posted job notice, I have not included writing samples but will happily provide them upon request.

My research and teaching interests are the social impact of communication and information technologies, collective action, and "big data" quantitative research methods. Before graduate school, I worked as a computer programmer and entrepreneur in volunteer-driven "peer production" projects. Some of my efforts – like the *Ubuntu GNU/Linux* operating system which I helped found and which is now used by over twelve million people, and *Wikipedia* where I contribute actively and serve on its non-profit advisory board – have become inspirational examples of the productive power of online collective action. That said, through a series of less successful ventures, I also learned that most similar attempts never get off the ground. I returned to graduate school to learn how to answer why.

I study collective action in online communities and seek to understand why some attempts at collaborative production – like Wikipedia and Linux – build large volunteer communities while the vast majority never attract even a second contributor. I am particularly interested in how the design of communication and information technologies shape fundamental social outcomes with broad theoretical and practical implications – like the decision to join a community or contribute to a public good. My research is deeply interdisciplinary, consists primarily of "big data" quantitative analyses, and lies at the intersection of communication, sociology, and human-computer interaction.

One major feature of my research is the comparison of failures to build communities to rare successful attempts. The vast majority of previous work on collective action – on and offline – has selected on the dependent variable by only studying projects that successfully mobilize volunteers. In one working paper, I compare Wikipedia to seven attempts to create online collaborative encyclopedia projects that were launched previously and propose four hypotheses to explain why Wikipedia attracted many more contributors. I have also followed this strategy in a series of quantitative studies of the Scratch online community: a public website where millions of users create, share, and collaborate on interactive media. In one study, co-authored with Andrés Monroy-Hernández and forthcoming in *American Behavioral Scientist*, I test and find support for several widely cited theories but also show that factors associated with more collaboration are also associated with less original and transformative types of joint-work. In an in-progress analysis of a new dataset I have created from 80,000 attempts at wikis, I have tested and found little support for a widely cited ecological model of collective action from sociology that treats volunteer labor as a fixed and finite resource. By looking at failures, these studies provide tests of several of the most influential theories of the conditions for collective action, suggest important practical and theoretical limitations to existing models, and point to previously untheorized mechanisms.

A second major theme in my research is attention to the role of reputation and status in the mobilization of volunteers. In a study of status-based awards in Wikipedia called "barnstars" – a collaboration with Aaron Shaw and Yochai Benkler – I provide an empirical test of an influential status-based theory of collective action from sociology and find that it is

supported only for a sub-population of contributors who show off their awards. In another study of Scratch, written with a team at Microsoft Research and nominated for best paper at the *CHI 2011* conference, I present both a quantitative analysis of a design change and in-depth interviews of users to show that credit-giving is ineffective when it stems from an automated system because systems fail to reinforce status-ordering with credible human expressions of social deference and gratitude. These studies, and my other work on status, suggest important limits to previous theoretical work on status as a motivator for collective action, and describe a more nuanced theoretical model.

A third theme in my research is the analysis of design changes as "natural experiments" to offer a deeper, and often causal, understanding from observational data. For example, in a study evaluating the impact of status-based incentives to collaborate in Scratch, I treat the creation of a new "leaderboard" for collaboration as a exogenous "shock." Framed in terms of motivation crowding theory, the study finds that increased status for the creators of collaborative projects resulted in more collaboration but also caused a decrease in the amount of total effort exerted by contributors. In other work with Leah Buechley published at *Design of Interactive Systems*, I have analyzed sales records of hobbyist microcontrollers to argue that relatively simple design changes in the *LilyPad Arduino* – a electronics toolkit minimally re-designed for women and girls – led to large increases in the proportion of female contributors and drastic shifts in the type of projects created. In addition to the important theoretical findings in both studies, this type of work represents an important methodological advance in that it allows for stronger causal claims while also closing the gap between theory and design.

In a new stream of work, I am using my existing datasets to compare the performance of collaborative production to individually produced works to understand when successful collection action leads to better products – and when it does not. For example, in an analysis using data from Scratch which is currently under review at *Computer Supported Cooperative Work* – done in collaboration with Monroy-Hernández – I find important limitations of collaboration through remixing in regards to project quality, particularly for more artistic or media-intensive works. These findings call into question the wide applicability of the basic assumption in peer production that collaboration leads to high performance and points to important areas for improvement in the design of online community software.

As is clear in my vitæ, my work is deeply interdisciplinary. My PhD is from a self-designed interdepartmental program that brings together social science faculty at the Sloan School of Management with design and engineering faculty at the MIT Media Lab. I have collaborated with co-authors across a range of academic departments. And although the bulk of my current work is targeted at journals in communication and sociology, my vitæ lists publications in social science, computer science, and media studies. It also shows an eclectic and successful record of fundraising. I have been generously funded by Sloan, the Media Lab, the Berkman Center for Internet and Society at Harvard University, and the NSF. I have successfully sought additional funding for research assistants and computational resources with grants from Amazon, Cisco, and MTV/Viacom.

I also have experience and a passion for teaching. In addition to acting as a teaching assistant, mentor, and advisor to undergraduate and masters students, I am, to my knowledge, the only current PhD student that is routinely invited to lecture in MIT Sloan's Executive Education and Visiting MBA programs. Your department's undergraduate courses on *Computer-Mediated Communication* and *Organizational Communication* are both good matches for my expertise as are your graduate courses on *Theories of Technology and Society*, quantitative research methods, and your course on *Internet Research*. With my experience with successful startups and in executive education, I would be also be well positioned to teach in your *Masters in Communication in Digital Media* program.

Although the large majority of my energy is put toward research, teaching, and service, my vitæ also shows evidence of the value that I place on my role as a public intellectual. I blog actively for a regular audience of thousands of readers and give regular talks at conferences and universities around the world on my research. I am a board member of the Free Software Foundation, sit on the advisory board of the Wikimedia Foundation, and have advised One Laptop per Child and several

other organizations.

I grew up in Seattle and love the city. Many years ago, I was recruited by John Gastil to study as a doctoral student in your department. Although I chose a different path, I have maintained and fostered warm collegial relationships with several members of your faculty and with others at University of Washington. Based on these experiences, I believe that my skills would be an excellent match for this job and for your department. I hope that you will consider giving me an opportunity to join you.

Sincerely,

Benjamin Mako Hill
MIT Sloan School of Management
MIT Program in Media Arts and Sciences (MIT Media Lab)

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