

Harvey Fellowship Application Essays

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J. Nathan Matias

PhD Candidate, MIT Center for Civic Media Lab, MIT Media Lab

Fellow, Berkman Center for Internet & Society

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PERSONAL FAITH STATEMENT

Write a personal statement of your Christian faith (what it is that you believe). Explain the significance of your faith in Jesus Christ to your everyday life. Be sure to describe your involvement in a local church, and give examples of opportunities that you have had to demonstrate and evidence your faith.

I first placed trust in Christ at 4 years old, distressed at my own sin and guided by Christian parents. With a mother who had been a missionary in Guatemala, a father from the country's western highlands, and an extended family largely involved in ministry, I had many examples of Christian service. Later, as a teenager obsessed with technology, I received an overriding sense of the parched, selfish isolation in my future if I failed to follow Christ's example of love and compassion. Committing to follow Jesus and choosing to study humanities at Elizabethtown College, I was blessed to learn from other Christian students and faculty who held those values close to their heart, minds, and character.

At Cambridge university, I learned how to match a personal faith with organized action, through leadership of undergrad and graduate Christian groups in the university and at Eden Baptist Church, where I was a member. At MIT and Harvard, my Christian faith has been an essential compass. Prayer, worship, and reflection—at Park Street Church, student Bible studies, and in the workday—have led and challenged me to follow Christ's priorities in the dizzying intensity of graduate life. My faith also motivates me to serve the wider MIT community, work that was recognized by the institute-wide Horton Fellowship award.

Last year, my longtime friend and inspiration Hannah and I were married. Several years earlier, Hannah encouraged me to write about intersections between Christianity and my work in social computing. By amplifying the work of others in my writing, I try to carry out the vision of humility in Philippians 2, leveraging my notability to connect and advance others. As Hannah's husband, I also have a special opportunity to encourage and support Hannah in her own faith and in her work for InterVarsity's Graduate/Faculty Ministry.

Nine years at prestigious universities have placed me very differently from my father's childhood of poverty, my mother's sacrificial years of mission work, or my extended family's experience with full-time ministry. As I learn from experience and from the encouragement of other Christian academics, I remain profoundly grateful for the chance to turn to Christ, whose words, example, and daily support will continue to lead and challenge me in coming years.

VOCATIONAL GOALS:

Briefly outline your vocational goals. Describe the factors that have motivated you to pursue your vocation. Be sure to reflect on your efforts to integrate your faith, learning and vocation.

I study the design and the effects of governance online, focusing on the role that people affected by power can play in decisions that shape their social lives. In our time, many fundamental political, economic, and social functions are being transferred away from institutions toward computer-mediated networks of collective action. For all the advantages these networks bring, they may also tend to reinforce inequalities and centralize power to a few. These changes can also put older institutional safeguards of fairness out of reach. My work monitors outcomes and finds democratic steps toward just societies in these often-decentralized networks.

One of my inspirations is Luke's account of racial discrimination by the early Christian apostles, who preferentially distributed resources to non-gentile widows. As a new movement, they had no safeguards to ensure fairness. Thanks to courageous Christians who observed this discrimination and advocated for change, the Jerusalem church changed its governance structure, establishing new policy goals (equality) and novel interventions (deacons) to uphold Christ's teachings across the movement.

We currently have a limited understanding of the social implications of networked communication and organization online. For example, problems like discrimination or harassment are acknowledged risks, but they're hard to monitor, and our policy tools for addressing them across networks are limited. Furthermore, monitoring schemes and interventions across these networks can introduce serious risks to human rights, since notions like legitimate rule through consent of the governed have proven technically, politically, and commercially challenging to imagine and implement.

After the PhD, I plan to continue this work in one of three ways. I may start an organization to use data science, ethnography, and experimental design in the public interest on issues of networked governance. Another option is to join a public interest group within an influential institution, inspired by recent efforts at Pew's Data Labs, Wikimedia Research, and Google Ideas. I am also considering an interdisciplinary academic career focused on understanding and defending the public interest in matters of networked governance.

While pursuing research in the public interest, I have been privileged with opportunities to reflect, write, and speak on the intersections between faith and my research, with religious and non-religious audiences alike. Were I selected as a Harvey fellow, I would be eager to discuss and listen to how others cultivate intellectual integrity from a standpoint of faith while also maintaining an inclusive commitment to the common good.

IMPACT

Explain how this vocational arena impacts society at large, and how this vocation is strategic to Christ's kingdom. Provide evidence that your chosen field is under-represented by Christians and tell us how you plan to impact your field for Christ.

Although billions of people communicate and organize through online social technologies, our collective understanding of their implications is still very young. As these systems become pervasive, we are reshaping our social and material lives to include them, opening our lives to new benefits and risks. I do public interest research to help us understand and govern our use of these social technologies.

For example, as more people join the social web, we are confronted with new dimensions of an old question: who is my neighbor? What are my obligations to the billions of people I might possibly meet almost anywhere online? Harassment of marginalized groups online is a well known problem that has gained visibility after recent, coordinated attacks on women in the U.S.. In 2014, the Knight Foundation introduced me to a nonprofit with similar ideas on peer support for targets of online harassment. I am now working with Hollaback on a process where survivors of harassment lead the design of a novel peer support system.

Bridging between academic communities and survivor advocates, I recently organized three projects that advance knowledge and may influence the social technology industry. First, I led a team of six researchers on the first systematic, public analysis of the experiences of [reporting, reviewing, and responding to harassment online](#). Second, I am coordinating contributions from over 30 researchers in 10 different fields to offer an accessible literature review on [issues related to online harassment](#)—a review directly requested by teams at 5 major online platforms to guide their policy and technical decisions. Finally, I am convening a workshops for survivors, advocates, researchers, and platform operators to share ideas for advancing online safety and civil liberties online.

Christians in social computing are more numerous than we think, but it took me many years to find others. That's why I recently co-chaired a religion + social media workshop at a major conference, co-organize a video chat of Christian social computing researchers, and write publicly about ideas connecting Christianity and my field.

How can I impact my field for Christ? A good baseline is to do others-minded research in the public interest, putting love for people at the heart of my work. Beyond that, I am grateful to be in a research group that encourages students to ground our work in our political, religious, and ethical commitments, something that I try to exercise and support in others.

LEADERSHIP

Reference at least one recent leadership experience related to your vocational goal. If possible, show how you have demonstrated the ability to lead others, particularly as the head of an organization or group. Describe how this experience has played a role in your development and/or informed your understanding of leadership in general.

My time at MIT and Harvard has changed how I understand leadership. I once imagined leadership in terms of formal positions, and I do have experience leading industry teams, nonprofits, and ministry groups. A well led organization can achieve great things, and I have enjoyed working on novel products that are now used by over a billion people. But learning from my advisor Ethan and others, I now seek enduring change through networks rather than single organizations.

My work on gender discrimination in the media illustrates the networked leadership I now practice. Although decades of research by advocacy and industry groups has documented global media's disproportionate coverage of men over women, these human-coded reports are too infrequent to support widespread change. In a series of public articles with the Guardian Datablog, I demonstrated automated techniques for analyzing gender in large media datasets. Building on the attention those articles received, I advised a successful grant to a software company who made those techniques widely accessible. Using the software, my master's thesis demonstrated novel real-time systems for identifying discrimination and fostering equality inside organizations like the Boston Globe, volunteer networks on Wikipedia, and information networks on Twitter.

By making this software widely accessible and illustrating its use, I inspired work that was beyond my own capacities: a Texas Tribune investigation of gender wage gaps among state employees, a system to monitor disparities on convention stages, a peer reviewed article on gender in New York Times comments, and tools for journalists to monitor the diversity of their own reporting.

Building on this growing network of practitioners, I have worked with charitable foundations to convene workshops to support further work. While at MIT, I have supported over \$150k in successful grants, almost all of which went to partner organizations better positioned to do the greatest good with those funds.

The most meaningful impact doesn't involve me as a formal leader or chief bottleneck. Instead, I work to inspire and convene wider impact—building on my research to use the brand and resources of MIT and Harvard to connect people who can achieve great things with or without me. My greatest assets are my networks, the trust I share with others, and my capacity to enable others' success. With training and mentorship from professional facilitators, I am growing in my ability to create contexts where others can imagine and realize their best ideas together.

DEGREE PROGRAM

Describe the special strengths of the degree program(s) to which you have applied, and how they compare to the acknowledged premier programs in your specialty. Discuss how these programs will prepare you to enter the job market and pursue a position of influence within your field.

The MIT Media Lab, Center for Civic Media, and Berkman Center for Internet and Society are unique contexts and platforms for world-changing work in the public interest. Since my goals and my combination of institutions are rather unique, I will describe my peers, explain the nature of the Media Lab, and outline how my institutional mix prepares me for a lifetime of influence.

Researchers who do public interest work on networked governance have come from a variety of fields. For example, Yochai Benkler, who studies networked public spheres, a legal scholar at the Harvard Law School, creates impact through theories on the governance of social organization while also serving as an expert witness in the trial of Chelsea Manning. Solomon Messing worked at the Facebook Core Data Science team before leading Pew's new Data Labs. danah boyd did Master's research at the Media Lab and a PhD in anthropology before building up the field of social media research at Microsoft and founding the Data & Society Institute.

PhD students at the MIT Media Lab are expected to do high quality research while also creating wider impact. For example, my mentor Andrés Monroy Hernández developed the Scratch platform, supporting many millions of children to learn to code. Andrés uses data from that platform to make fundamental contributions to the sociology of creative learning and collaboration. In Leo Bonani's PhD, he did ethnography on Apple laptop supply chains while designing collaborative technologies for industries to document and act on supply chain ethics. Leo created new approaches to ethical sourcing while also making novel contributions to the fields of design and human computer interaction.

My current institutional mix has offered high quality training in methods, a supportive community, and the mentorship I need to grow my capacity for impact within and beyond academia. At MIT, Harvard, and Microsoft Research, I have had access to world-class disciplinary training in the methods including design, ethnography, statistics, field experiments, and action research. My institutions also offer me access to networks of influence and mentorship that are rare elsewhere. In the last four years, I have collaborated with or received mentorship from Pulitzer Prize winners, foundation presidents, government advisors of several countries, regulators, executives, corporate researchers, and experienced activists.

I can think of no better context for developing the unique skills, outlooks, and networks required for the work I aspire to.

OTHER (Optional, but encouraged)

Please state anything else that is important for us to know about you. We encourage you to share information you feel is important, but have not had the opportunity to fully present in the other essays. You may wish to explain gaps in work/study in your resume, explain your work sample, expound upon your vocational goals, give another example of your leadership gifts, etc.

In this application, I have attached a paper currently under review in a computer science venue. I wrote "*Going Dark*" while at Microsoft Research this past summer. I am sharing this paper because it offers details on the kinds of governance contexts I study in my research. The paper also illustrates the kinds of mixed methods I often employ.

I was first attracted to studying reddit after leading a team to analyze harassment on Twitter. While peer support is rare on Twitter, reddit has over one hundred fifty thousand volunteer moderator roles. I was curious about how moderators made sense of their work, especially at a time when the company was changing its site-wide policies on hate speech and harassment.

I began my fieldwork at a moment of tremendous tension across the site and witnessed several collective actions to convince reddit to change how governance worked. One group advocated for greater tolerance of hate groups by the company. Another group, moderators of over 2,000 communities, shut down large parts of the site; they demanded that reddit treat them with more respect and expand their capacity for effective self-governance.

I'm expecting to write a series of four papers out of my reddit fieldwork. The first paper, aimed at communications and sociology audiences, advances theory on how people make sense of governance work in online communities, as revealed at times of transition and crisis. The second (attached) computer science paper, "*Going Dark*," asks what factors lead to collective action against a platform by the volunteers who carry out governance. The third paper, for a social movement sociology audience, develops a natural experiment from reddit to ask a question that any leader asks before calling for a strike: what will the effect be on the community? In the final paper, for computer science and data mining audiences, I will design and evaluate novel technologies for reddit moderators to estimate the causal effects of policy ideas in their online communities.

In the 1930s, Supreme Court Justice Louis Brandeis famously described the U.S. states as laboratories of democracy for testing new policies. Across my work, I see platforms like reddit and Twitter as the same: as laboratories of governance for our online lives. The attached paper illustrates what it means to study those contexts, offering qualitative findings and statistical tests from over 52,753 communities and the people who govern them.