



June to December 2016

The Mozilla Leadership Network

in our own words

STORIES + KEY LEARNINGS

from 50 interviews with
Mozilla Network members

moz://a

we stand for
the internet

This document was created by Matt Thompson and Christine Prefontaine.

We would like to extend our deepest appreciation to everyone who participated by telling their story — including those who are not mentioned in this preliminary report. Our community been very generous with their time and ideas, both during the interviews and afterwards. More stories and full transcripts are available at StoryEngine.io, along with an overview of our methodology.

If you would like to volunteer to be part of the StoryEngine project, please contact christine@facilitatingchange.org or matt@mozillafoundation.org.

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Early Insights: Executive summary

*These are preliminary patterns and insights drawn from network members interviewed for Mozilla's **StoryEngine.io** initiative, organized around MoFo's five main objectives for 2017. More rigorous analysis will follow — including a coded database, deeper qualitative + quantitative analysis, and updated takeaways. More details for each of these takeaways are in the pages that follow.*

Questions? Contact Matt Thompson (matt@mozillafoundation.org) or Christine Prefontaine (christine@facilitatingchange.org).

1 // Increasing public awareness about internet health

- ★ **Members don't necessarily know or express confidence about what “the open internet” is.** But then immediately go on to say interesting things about it! There's a jargon or confidence gap here.
- ★ **Basic issues of safety, security and threat are top of mind.** Many members are grappling with new threats (e.g. “the internet's dark side”) vs. the optimism of an earlier era. Members use rich language to describe what they love and fear about the internet's present moment.
- ★ **These voices can help us update what “the open internet” — and “internet health” — actually mean for real people in 2017.** There may be an explicit opportunity for us to mine and mirror network members' language in our testing around internet health messages in Q1.

2 // Launching the Mozilla Network into the world

- ★ **A recurring leadership pathway is emerging.** Across domains, it's often marked by a big ask, high-touch human support, and an increased sense of self-efficacy — e.g., “You can do this.”
- ★ **Members value opportunities to listen, generate ideas and collaborate across domains — and want more.** *How* to do this (beyond MozFest, joint fellowship onboarding and Working Open Workshops) feels unclear.
- ★ **There's a real sense of friendship and community.** Notwithstanding challenges, lasting personal relationships are being formed around shared values and niche interests — which yield longer-term partnerships. e.g., “People here feel the same way I do, so we can just get down to work.”

- ★ **There's a recognition of the value of "working open" and appetite for *practical ways to do it*.** How might the structured "Working Open Workshop" approach provided to Open Science leaders be expanded to other hubs?
- ★ **High-touch mentorship / support is a recurring theme.** Positive early interactions with friendly and interested humans — whether staff, community, or fellow participants — is the #1 recurring element in network success stories.

3 // Driving public demand for better privacy and security

- ★ **In the minds of many network members, the issues of "privacy + security" and basic safety online (e.g., from trolling or harassment) are not separate.** We might tend to separate out the second issue as "digital inclusion," but the line between privacy and security (e.g., encryption) and safety (e.g., anti-harassment) is blurring in response to a changing online environment.
- ★ **Underlying cultural bias and lack of diversity is a challenge.** Members point to the fact that online platforms and products tend to be designed by men, and that much of the discourse around privacy and security is still male- or Western-centric. Mozilla has an opportunity to be more inclusive in its strategies and language.

4 // Growing MozFest as a movement focal point

- ★ **More invitations + easy ways to cross spaces.** Members love MozFest. Some want more intentional cross-collaboration between spaces, like "guided tours" through other floors or specific invitations for people who "don't belong."

5 // Making MoFo a more diverse, high-impact movement org

- ★ **Building a strong feedback loop with the people we serve is crucial.** Asking network members what they think boosts their level of engagement — and often leads directly to increased actions with Mozilla.
- ★ **We can weave together multiple feedback and recognition initiatives.** In 2017, our interview work, network recognition program, Pulse, advisory group, and organizational learning can all knit together into a single integrated feedback loop.
- ★ **A "concierge service" for the network adds value and wayfinding.** Having the interviewer make personalized recommendations about other network members and resources based on the member's interests is a big added bonus of this work.
- ★ **Being clear and consistent about what Mozilla is offering is key.** Frequent program changes produce pain for our most ardent supporters.

1 // Increasing awareness about internet health

- ★ **Members don't necessarily know or express confidence about what "the open internet" is.** But they then immediately go on to say interesting things about it. There's a confidence / jargon gap here. People feel like there is a correct "Mozilla" answer to this question, yet often have a more personal answer they find difficult to articulate or are reticent to share — but that often contains riches.

*"The open internet is a space where people can engage, learn, work, and share moments and fun. **It is important because people have control** — not corporations and governments focused on profits and their own benefits."*

— GERALDO BARROS

*"The open internet is a place that is accessible for everyone. Where everyone has access. Not just access... it's more than that... **Everyone has the skills and is provided with the tools to understand how to participate on the web.** How to use the web to benefit us all."*

— ARIAM MOGOS

- ★ **Basic issues of safety, security and threat are top of mind.** Protecting vulnerable populations, inequality, trolling and harassment, basic safety — these issues are on people's minds and interwoven with the whole idea of "the open internet". Many of these leaders are wrestling to square the idealism of the open internet's early promise with this new era. This may represent a unique opportunity for Mozilla to connect the issue of "internet health" to the present cultural and political moment — and to how these leaders are *feeling* right now.

*"**The open internet is something that does not exist yet.** The internet and tech are infrastructure created for a certain kind of people, by a certain kind of person. Built for non-targets by non-targets. A lot of the Internet is unsafe for other populations."*

— SHAUNA DILLAVOU

*“There are language barriers... culture barriers as well. When you come from a certain context, a certain environment, the internet is a very foreign thing to you. You don't know how you can contribute towards it. **You don't even know the dangers of what it means to have an internet presence.**”*

— MMAKI JANTJIES

- ★ **They use rich language to describe what they love and fear about the internet's present moment.** In many cases, their language has an immediacy and emotional resonance that our own messaging often struggles to reach. In our view, more interviewing with network members like these can greatly strengthen our testing around “internet health” messages in 2017. These voices can help update what “the open internet” — and a broader idea of “internet health” — actually means for real people in 2017.

*“I'm not sure it's still the open internet. **The earlier internet where you had a lot of control over how things look like and you could help build it, I don't feel that anywhere in the internet that I go.** Now, it's all presented to me in a nice package. I can add content, like text or add pictures, or share an article, but I don't get to actually mess with the architecture of the pages I'm on, or build new tools through it.”*

— HILLARY KOLOS

*“The open internet is where we have **freedom of speech but not freedom of abuse**, where we have hyperlink that is not locked down, where the participation of people online isn't necessarily linked to advertisements and buying their data.”*

— HERA HUSSAIN

2 // Launching the Mozilla Network into the world

★ **A recurring leadership pathway is emerging.** The “big ask” — especially asking volunteers to take on an ambitious task — is an important milestone. It expands the member’s sense of what they’re capable of and provides explicit opportunities for coaching and boosting skills. The ask says “we trust you,” and communicates that the person is valued, which further energizes and empowers them to deliver on the ask — and to then provide similar opportunities and experiences for others. Alex Wafula’s story, for example, illustrates this pathway well:

→ *Initial interest*

→ *Participation*

→ *“Big Ask” (an invitation to lead, coordinate, represent)*

In Alex’s case = to be the main point of contact for all of Kenya, which he described as “a huge thing for me”

→ *Coaching and training to deliver*

→ *New or improved skills gained*

→ *Sense of self-efficacy and what’s possible expanded*

→ *Energized and empowered to do same for others*

→ *Network built and strengthened*

★ **Members value opportunities to listen, ideate and collaborate across domains — and want more.** Support to go deeper into their own field is valued, but members highlight the value Mozilla brings in terms of creating spaces to go *beyond* their own domain, access people/orgs that they normally wouldn’t, and think differently. They also appreciate understanding Mozilla’s broader goals and strategies. They want more, especially at MozFest and through fellowship programs. Given that: how can we leverage moments like on-boarding or Working Open Workshops to do this better in 2017?

*“When we did our fellowship orientation at the onboarding in Toronto, there were four Science Fellows and about seven Open Web Fellows. **We all did our onboarding at the same time. [Before that], I had no idea that they existed, or what those programs meant.**”*

— KIRSTIE WHITAKER

“Mozilla has helped me access and connect with people I normally wouldn’t. They fund all these spaces, but also encourage people to go beyond their own domain and think about how different spaces can collide... It was a shame to have met the fellows from the other programs only at the last gathering of my fellowship.”

— CHRISTINE ZHANG

*“I found out this weekend [at MozFest] about fantastic projects happening in Kenya, and it would be great to try and replicate those in Tanzania — **but I don’t know the best people to talk to or the best way to take that forward.**”*

— JANET CHAPMAN

*“Mozilla is good at creating networks and providing opportunities for people to meet and spark collaborations. That’s actually what Mozilla does best: help people cross boundaries. They’re good at movement building. **They enable cross-discipline collaborations. They help people hear each other’s voices.** It’s valuable to have an organization focused on generating those discussions and pushing those agendas. Otherwise, it’s hard to find time and breathing space to have those conversations and think about these things.”*

— STUART LYNN

- ★ **There’s a strong sense of friendship and community.** Lasting personal relationships are formed in the network, which lays the groundwork for stronger and more productive partnerships. A supportive, kind environment was highlighted often, and values — especially around sharing and empowering others — are emerging as an important network glue. Also, the long-term sustained participation of volunteers around a set of ideals can be mobilized for projects that depend on local knowledge, like the Digital Skills Observatory.

*“Some of the people I know through this network are people I didn’t know six months ago. **We speak a lot nowadays about all kinds of issues, issues I’m passionate about or need help with.**”*

— ACHINTYA RAO

*“**We built really good relationships,** which is the most important thing. Those guys became friends, still are, and we just kept working on things.”*

— DAVID HUMPHREY

*“The community, the [Mozilla] clubs, as much as they get structure and guidance from above, they tend to also have the comfort of **using local solutions on the ground to be of impact in society.**”*

— DUNCAN WASHINGTON

*"I feel like I really trust the people I work with in the Hive. That means that **I can be more critical and supportive**. It's not just like we're all patting each other on the back and saying, 'Good job,' and sharing a couple of things, but we really get deep into the issues that we're all facing."*

— HILLARY KOLOS

*"Mozilla has put me in touch with these amazing, like-minded people. We're all learning about the tools that you use to get stuff done and coordinate communities. I just love being with such vibrant, creative makers. **I found my kind... cool geeks who build stuff and get stuff done**. It's a network with really great, clever, creative, innovative people — and the whole structure of the network is there to propagate cool ideas and test them out."*

— ANNA KRYSTALLI

- ★ **There's a recognition of the value of "working open" and appetite for practical ways to do that.** Many science members cited the Working Open Workshops as a highlight. How might that "infrastructure" approach be expanded and adapted to other hubs? In Science it is structured with GitHub — but in Learning, methods of documentation and sharing appear to be ad-hoc and more scattered.

*"**[Working open] isn't just about clarifying your project for others. It's about clarifying it to yourself.** I spend so much time on the 'Read Me' file for the STEM role models project I made at the Working Open Workshop in Berlin. I'm so proud of it. Every time I read it, I think, 'God, that really got it right down.'"*

— KIRSTIE WHITAKER

- ★ **Human connection and access to mentorship and support is key.** When people talk in glowing terms — from old-school network members like Dave Humphrey, to new Working Open Workshops participants, like Achintya Rao — they focus on the *people* that welcomed and encouraged them. People get engaged and inspired by others and are motivated, in turn, to do the same for others.

*"If there's someone who helps me throughout from India, that's Shreyas. He's my mentor throughout all I've been working on till now. I reach out to him — even when he was in Singapore for a summit — **I talk to him and ask questions and clear out doubts regarding community work or whichever thing I'm planning**. Shreyas has been helping me, and so is the entire team, like Julia and Amira."*

— ARKODYUTI SAHA

*"I wouldn't have Maker MOB without Hive and I wouldn't have this upcoming iteration to Maker MOB without the push to create that iteration. They all were big fans of Maker MOB, even though it wasn't a success in my mind, people were like, 'Yes, it was. Absolutely. Just make some changes and do it again.' **That support is amazing and that's why I will continue to go to the Hive meet-ups.**"*

— MEGHAN HAUSMAN

*"I worked on a grant and submitted it to Mozilla. It wasn't funded. **But because I took the time to write the proposal and got really great feedback from Lindsey and Jeff, I was able to fund the makerspace at Clifton Hills.** That was a cool experience because they didn't say, 'We're sorry, you're not funded,' instead they offered support and encouragement. I was able to take bits and pieces from what I wrote and use that to write other grants, which were funded. I don't think that would have happened if I hadn't written the Mozilla grant."*

— CRISTOL KAPP

*"The [RallyPoint6 workshop] participants were **blown away by the amount of care and passion and understanding that the Mozilla team had** towards their individual challenges and opportunities."*

— KYLEE DURANT

3 // Driving public demand for better privacy and security

- ★ **For many people, the issues of “privacy + security” and basic safety (e.g., from trolling or harassment) are not separate.** We at Mozilla might tend to separate out the second issue as “digital inclusion,” under the umbrella of ensuring safe, inclusive spaces online. But in the minds of many network members, the line between privacy and security (e.g., encryption) and safety (e.g., anti-harassment) is blurred. This may create opportunities to talk about privacy and security in new ways in 2017, widening its scope to deliver a message more connected to the present moment.

*“Is someone going to decide at some point that I’m not welcome in a certain part of the world, for no crimes that I have committed, **but just for an idea that I have expressed online?**”*

— ACHINTA RAO

*“No matter how dangerous it is for young women to be online — we’ve seen them face stalking and a barrage of trolling from people who wish them harm, including family — **they still want to get online** because so much of their social activities are there.”*

— HERA HUSSAIN

- ★ **Cultural bias can pose a barrier to privacy and security solutions.** Many of our network members talked about the underlying issue of design bias, given that many online platforms and products tend to be designed by Western men. This can result in online experiences that “default to unsafe” or produce unnecessary risk for vulnerable populations. (One implication: Increasing the number and diversity of women in software and tech is also, indirectly, a privacy and security issue.)

*“For example, if you use Facebook’s mobile app and have your location turned on, it will post your location. [This is a problem for] someone who doesn’t want everybody in the world to know where they are — because their life may be threatened... **It’s only recently that people have started to think about these issues because women were never part of the design process.** That’s one of the reasons why diversity is so important. Even in the feminist spaces there are challenges — because the international feminism movement is so white. It just completely misses important issues. We really need to think about who’s in the room.”*

— HERA HUSSAIN

- ★ **A broader, more inclusive approach to how we talk about security.** Network members also spoke about how many discussions around privacy and security tend to be male-dominated, intimidating, or just plain unwelcoming. There's a need and opportunity for Mozilla to take a broader and more inclusive approach to this issue.

*“Overall, the privacy track at MozFest 2013 was disappointing because **it felt like a bunch of dudes telling you that you were doing it wrong**. I would like to have seen a broader approach. So many people in the security field have a hero complex. They want to be a savior. They talk over you. They don't let you ask questions. I'd like to speak with people with aligned values and who also work internally — in themselves and in their companies — to reflect those values.”*

— SHAUNA DILLAVOU

4 // Growing MozFest as a movement focal point

- ★ **Network members deeply value MozFest.** Especially the serendipitous encounter, cross-domain collaboration, and lack of hierarchy / physical manifestation of core values. For many members, MozFest *is* Mozilla. It's also the place where they “get” Mozilla and begin to grok the scope of its mission and activities.

*“As far as I knew, it was something to do with Firefox. **I didn't realize until I got to Mozfest the breadth of work that Mozilla was doing.** Mozfest, for me — as opposed to being a culmination of my involvement with Mozilla — was almost **a gateway drug.**”*

— SHRUTI DESAI

*“It's just such **an amazing experience of bringing together people who represent different disciplines, but who all have these similar interest around the open Web and around notions of agency and being creators...** Beyond openness, it's dedicated to ideals of equity and social justice — and you get to see what that means in different locations around the world.”*

— PAUL OH

- ★ **Some members want easier ways to cross spaces.** They're interested in more intentional or explicit cross-collaboration. These could take the form of “guided tours” through the other floors for newbies, or more specific invitations for people who feel they don't “belong” to dip their toes or participate in other spaces.

*“Mozilla is good at creating networks and providing opportunities for people to meet and spark collaborations. At the Mozilla Festival, **our project was in both the science and journalism tracks, and we interacted with folks from advocacy and privacy.** It's rare that those communities come together.”*

— STUART LYNN

*“**My project came about through a chance meeting at MozFest** last year [with Egle Marija Ramanauskait], when I went to a session about citizen science. I was explaining the issues about the lack of maps in the areas where we work, and Crowd2Map Tanzania came out of that.*

— JANET CHAPMAN

5 // Making MoFo a more diverse, high-impact movement org

- ★ **Building a strong feedback loop is key.** And it pays unexpected dividends. A major early finding of this work: asking network members what they think — in a high-touch, human way — boosts their level of engagement. It also helps them clarify and articulate thoughts about their own work. They love that Mozilla wants to hear from them — and this fact alone often increases their level of engagement and actions with Mozilla.

One example: *As a direct result of being interviewed for this project, Eric Barrett got inspired to learn more about Mozilla and ended up facilitating a session at MozFest: Stories of Gender Bias in Georgia: Education, Employment, and Birth.*

- ★ **We can weave together multiple feedback and recognition initiatives in a powerful way.** Instead of operating as stand-alone initiatives, we can design a more integrated “network feedback loop” in 2017, connecting the dots between these initiatives and make them stronger together:

StoryEngine. *Systematic, in-depth interviews + qualitative / quantitative analysis.*

MLN Member Recognition. *All “Top 50” network members will get interviewed by StoryEngine (25 are already completed) so that we can celebrate and promote them, share their practices, and act on their insights.*

Organizational Learning Specialist. *Sharing all data with the Insights Team, so that they can turn it into actionable recommendations and follow-up.*

Network Pulse + Medium content streams. *Feeding our best stories, in ways that elevate / make network members heroes.*

Internal communications + on-boarding. *To regularly boost staff empathy, put a human face on our work, and make the intangible tangible.*

- ★ **Being clear about what Mozilla is providing is key.** Members are happier when Mozilla is clear and consistent about what they're providing. It's also clear from our interviews that the organization's frequent pivots and program changes have produced real challenges for many of our and early adopters and champions.

"The problem I've had is that the line moves all the time, even while you're deep within building a project. Suddenly, it needs to be an educational thing. No, it's not an educational thing, it needs to be for professionals. No, it's not for professionals, it needs to showcase something about the web... That has been something that I've had to deal with a lot, and so it's meant changing priorities and pivoting what we're working on. Canceling things that are successful in order to start other things, but then canceling those too and starting other things."

— DAVID HUMPHREY

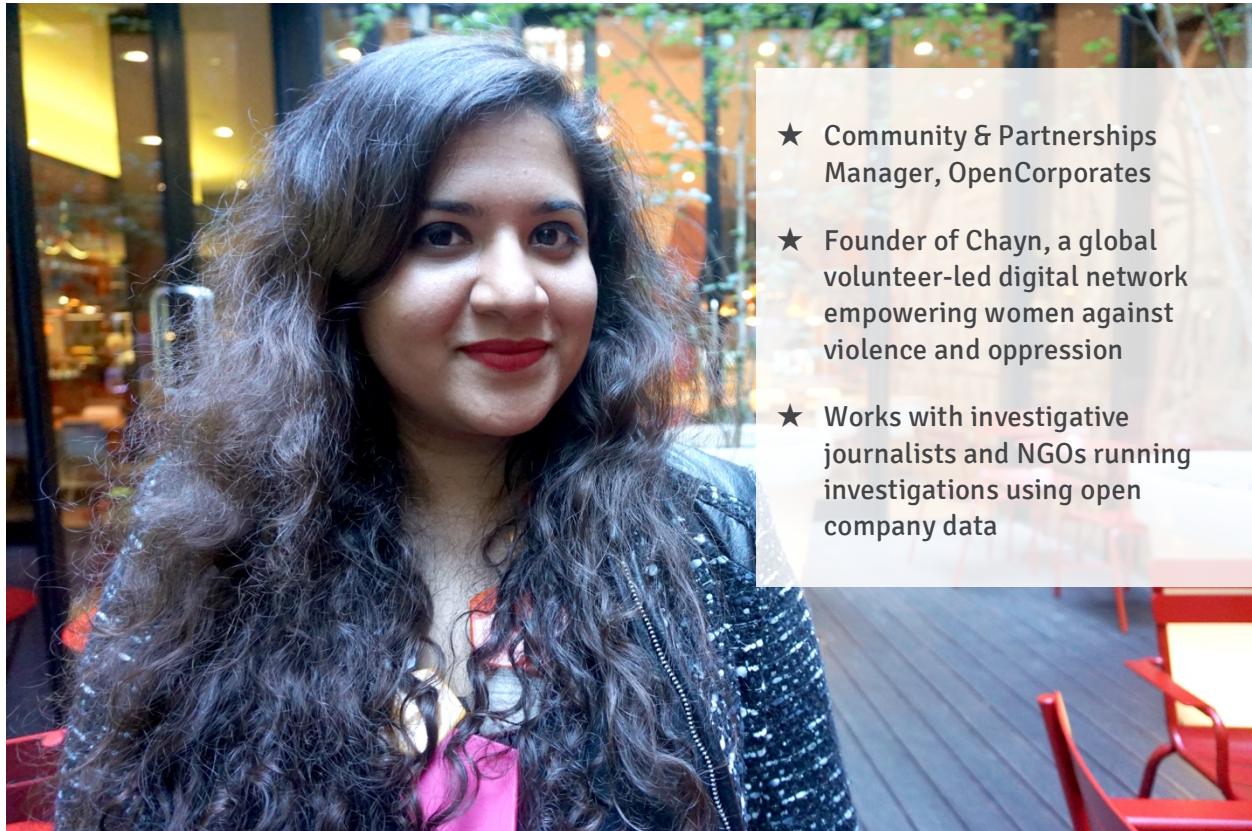
- ★ **A "concierge service" for the network adds value and wayfinding.** One unintended benefit of conducting these interviews: it allows a knowledgeable, friendly human to connect members to people and resources. e.g., "Oh, you're working on that issue — I can introduce you to this person!" Or: "You're interested in topic X — have you checked our resource Y?" We know that wayfinding at Mozilla is difficult. Having an insider with broad knowledge to guide people is valuable, and a built-in opportunity when doing these interviews.

"What needs to happen for online harassment to be seen as part of that [open web] framework? I ask to know what's been learned in the open web movement, to understand the movement's priorities, and to understand what people need to know or see about online harassment. Then I also ask in a practical way: Who is the right person to deliver that message, and where do they deliver it? I don't think it's me. We need somebody who's very well entrenched already in the open web movement to stand up and make the case for why this is the right time and why this is a part of what everyone is fighting for... If there are people who are also asking this question that would be really helpful. I would love to hear what they're thinking about and connect with them."

— EMILY MAY

Part 1 // Increasing public awareness about internet health

Hera Hussain // Keeping women safe online



- ★ Community & Partnerships Manager, OpenCorporates
- ★ Founder of Chayn, a global volunteer-led digital network empowering women against violence and oppression
- ★ Works with investigative journalists and NGOs running investigations using open company data

How can women stay safe online?

We're in the process of launching a toolkit people can use to protect themselves from online stalking and abuse.

Trolling is now one of the biggest challenges women face online. It's a huge problem.

No matter how dangerous it is for young women to be online — we're seeing them face stalking and a barrage of trolling from people who wish them harm — they still *want* to get online, because so much of their social activities are there. How do you stay in touch with everyone you went to school with? or with your relatives in different countries? **There are so many things you can *only* do online now.**

Gender bias in design

When you have online spaces, products and services designed primarily by men, they might *think* about women — but they don't include them in the design process.

This results in spaces that are inherently biased — not because they're saying women shouldn't enter them — but because they haven't thought through the different aspects that need to be considered.

For example, Facebook's mobile app will sometimes force you to add your location.

But many people don't want everybody in the world to know where they are — because their life may be threatened, or they might not want someone to know they're in the same city. Once that location information is out there, you have to manually remove it.

This is a small example where somebody should have considered people who are at risk when making a feature automatic, or forcing users to publish their location. But they didn't.

Similarly, governments now allow you to take your name off electoral registers. That's because of a huge amount of campaigning women activists have had to do. Otherwise, where you live was public knowledge. What if you're a female journalist who has people out to get you, because you talk about issues related to women? Or if you're someone with an abusive family?

It's only recently that people have started to think about these issues, because women were never part of the design process.

They were always an afterthought. That's one of the reasons why diversity is so important. Platforms need to have a serious think about what they can do. There's a lot of lip service from companies like Facebook and Twitter, but when it comes to actually doing something, they're mostly useless.

Taking an international perspective

Much of the research on trolling and online abuse has centered on Western societies.

You have a very, very Western perspective, and it's really important to address this problem everywhere — but there's a lot of neglect when it comes to other parts of the world.

There are many people around the world working on this issue. In India, there's a woman who works on revenge porn.

She's been shot at multiple times, but she continues to work.

I think she probably leaves her house each day thinking she'll die. This is how dangerous her work is — but she does it. My friend Nighat in Pakistan is a fearless fighter against it. There are people who are going to extreme lengths to work on this issue.

Monopolies and human rights

Monopolies are very bad for human rights in any space, because they get to decide the rules. So there's less room for innovations that don't meet their standards, and less chance your resistance will get through to them.

What's beautiful about Mozilla or organizations like the Web Foundation or Wikimedia Foundation is their fight for a free and open web.

I remember when there was a discussion in the EU about putting restrictions on hyperlinks. That shook me to my core. I could not believe in 2016, when the internet has become a part of our lives, the soul of it — the hyperlink — was in jeopardy.

It's through the tireless work of these organizations and others that we have thwarted some of these dangers. **But it seems like we win some fights, and then more headless monsters rear their head. It's going to be like that forever.**

It was pretty amazing that we have this organization — Mozilla — that has such a big community. It's sustainable and it's running — and it has the right principles.

For me, that was pretty amazing, because I thought the tech world was filled with big giants like Google and that's it. So it was refreshing to know that there is an alternative. There are people who are fighting for a free and open internet.

Emily Long // Understanding the infrastructure and business behind media messages



Filter bubbles and democracy

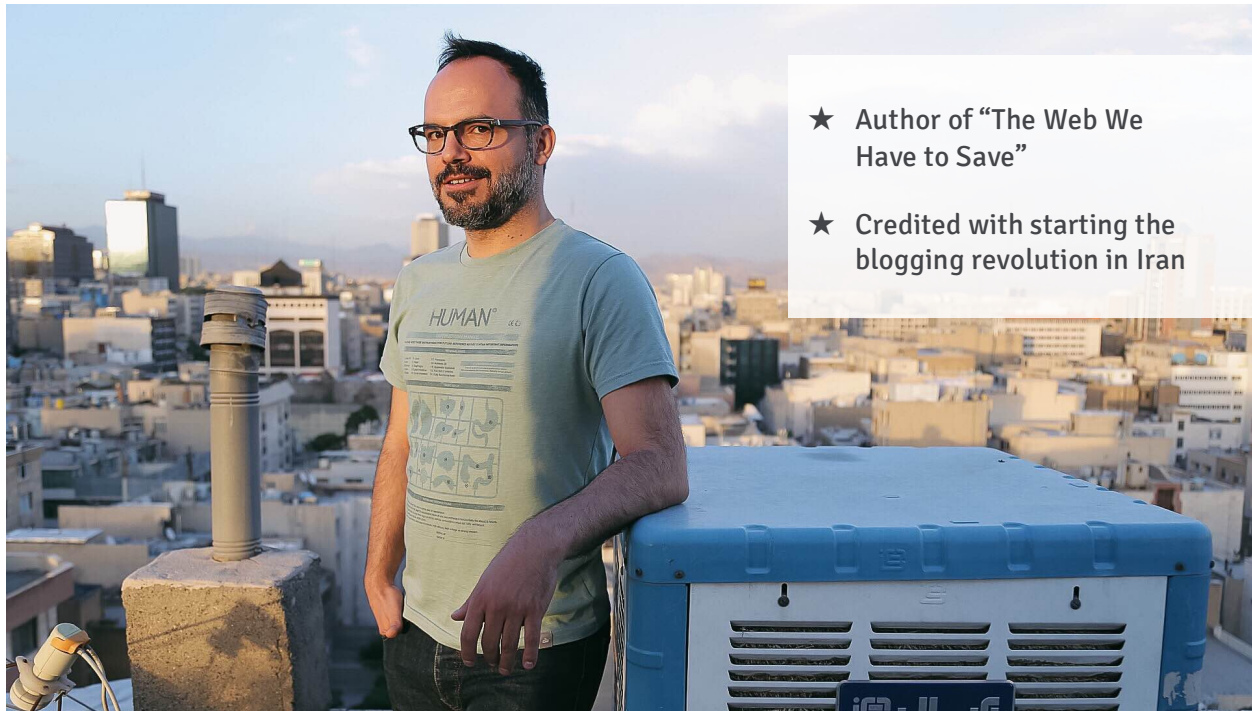
It's frustrating to me because we've heard over the years people talking about how open and democratic the internet is. There are still examples where you have humans going in and tampering with algorithms and making Facebook a pleasant place for you to be. **But that often means not confronting opinions that are different from your own.**

Understanding the infrastructure and business behind how media messages are served up to you is important.

That's something we've been talking about in terms of comprehending and critiquing the entire structure and construction of media and technology as money-making machines.

We've seen how the airwaves were dominated, **not necessarily by what is true, or what is accurate, but what's that's going to draw the most clicks and the most eyeballs.** This focus on what gets the most attention is reinforced in a million other ways, but it's writ large during an election — particularly this one.

Hossein Derakhshan // “The internet is becoming like TV”



We don't need to re-imagine an open space; it existed. But it is now being challenged. It is now dominated by aliens who do not respect the basic rule of this planet: hyperlinks.

The scariest aspect of all these changes is that the internet is becoming like TV.

This is scary because the internet was an alternate space for people. People who wanted to do something intellectual — for people who read books and serious magazines to connect with each other. Now that space has been shut down.

Like TV, the internet is becoming a medium that benefits people like Trump, Berlusconi and Erdoğan — the demagogues.

Have you watched the election primaries in the U.S.? It's like a reality show. Text disappeared in favor of video and images. Yet text has such a capacity and power to convey complex ideas. It should be cherished and revived.

I keep coming back to Neil Postman's book, *Amusing Ourselves to Death: Public Discourse in the Age of Show Business*. It is so relevant. For a short time, the web was an alternative.

Emily May // Bringing anti-harassment into the open internet movement



★ Co-Founder and Executive Director of *Hollaback!* — a global movement to end harassment

When we first launched the pilot of Heartmob, we were hit hard by online harassment. It's one of those things that you expect, obviously. We can't even talk about street harassment without getting harassed online. If you want to talk about online harassment, you've got to learn to expect it but not accept it. The way that that played out on our team was really hard. I personally was sick for three straight weeks following the launch of Heartmob, which is something I did not expect because I rarely get sick.

We got brute force attacks on the site; we survived those with flying colors. We knew that the site could be infiltrated, but we didn't think that it particularly mattered because everything was fully moderated. If somebody got on, they wouldn't be able to leave any kind of hateful comments — and they'd only be able to see content already visible on the internet.

Somebody did infiltrate the system. They took screenshots of the commenting section, took those images into Photoshop, and typed in hateful, horrible, horrific things. Then, they started tweeting out their fake images, claiming "Heartmob had been infiltrated since day one."

The comment wasn't allowed on the site, **but the photoshopped image started being re-tweeted by people who we thought were on our team, by feminists.**

How do you balance security with usability and engagement?

We've **revamped security at the cost of what we were originally intending to do**, which was to improve user design based on feedback.

We have invested so much in security. Yet what are the limitations to having something that's so secured that it's hard to get into?

We're in an age where it's a best practice to not have to click more than twice, or you're going to lose your people. But at the same, **the cost of a system where people are not safe, or do not feel safe, is much higher than the cost of four clicks**. Those are some of the questions we're thinking through in this nascent and complicated space.

Online harassment and the open internet movement

I'm really interested in this space of "the open internet". It's a huge space and there's a lot of money and interest and power circulating in it. But it's quite limited in terms of how inclusive it is.

I think one of the opportunities for the open internet movement is to fully embrace combating online harassment.

In some ways this may have even been perceived as a threat in the past — the idea that we would in some way limit free speech could be a threat to an open internet.

But that lacks an analysis of what's actually happening, which is that free speech *is* being limited. **The freedom of women and people of color is limited by online harassment.** I am a big proponent of free speech, but the question becomes "Free speech for whom?"

I think the open internet movement is interested in these moments of censorship by government. But we have a world, right now, in which so much of our communication is not happening in person, is not happening on the telephone, it's happening online.

My big question for Mozilla — and for the entire open internet movement — is: What needs to happen for online harassment to be seen as part of that framework?

What do people need to know or see about online harassment? And who is the right person to deliver that message, and where do they deliver it? I think it should be somebody very well entrenched already in that movement, to stand up and make the case around why now is the right time, and part of what everyone is fighting for.

Waiting for corporations to fix it won't work

We have social media companies that have been given the charge, whether they like it or not, of determining what free speech is and what that looks like.

But these companies are not governments. This is not the United Nations — they are corporations with a bottom line of increasing usage. So their response is to take a pro-social approach, which basically means encouraging users to go in there and battle it out — because the more that you're on their platforms, the more money they make. That makes sense from a bottom-line approach.

But a bottom-line approach also means they're going to confront online harassment to a certain degree. If it's so horrible that people like me very rarely use Twitter, then that's a threat to Twitter's business model. So we see that happening, too.

It's very dangerous to put free speech in the hands of corporations without any kind of oversight. The movement around the open internet really needs to look at: How can we create healthy public debate? How can we make sure everyone has equal access to speak and fully present themselves in public?

It's a hard question. I'd love to talk further with Mozilla about how to build that out and get people to include online harassment in that framework.

Part 2 //

Launching the Mozilla Network into the world

The stories in this section highlight the kinds of value current members are getting from the network. We're also looking for recurring patterns and themes in their leadership pathways, as well as opportunities across hubs.

The goal: Surface insights that might help us craft a strong value proposition, prioritize work, and strengthen the public launch of the network in 2017.

Alex Wafula // “The empowerment thing”



- ★ Software professional and community activist
- ★ Leader in the Kenya + East Africa Mozilla community
- ★ Digital Skills Observatory contributor

“Nobody looked down on me online”

When I first started using the internet, I was able to interact with others, learn from them, and share my experiences with people from different parts of the world who gave me opportunities to speak and give feedback. They didn't look down on me.

Relating to people at that level, in that open way, was a huge learning experience — in the sense that the experiences I have do matter, and I should not hold back.

When I left high school and was starting university, I was looking for a group of individuals that loved to learn and discover new things. **I was looking for a group that felt the same way I did that I could connect with.**

The power of a big ask

One day, while browsing, I saw that Mozilla had a student's program. When I reached out, I was surprised to find that someone [William Quiviger] responded, and then came all the

way to Kenya. “It’s great that we finally met,” he said. “Do you think you could be our point of contact here in Kenya?”

That was a huge thing for me. “The whole country?” I asked. He said “Yeah, sure.” I thought he was joking until he went out on stage and introduced me as the point of contact.

That’s when I got that “empowerment” thing.

It’s not something that Mozilla just says, the way politicians say, “Power to the people.” It’s real in Mozilla. It’s really the people who make what Mozilla is and move Mozilla. **That was a big part for me why I joined, and to a large extent why I continue to contribute.**

Building local networks

As part of Mozilla, I’ve done a lot of mentorship and have helped establish communities in several countries in East Africa.

I’ve interacted with contributors at a personal level — using empathy to identify their strengths, understand how to help them grow as contributors and impact their lives in a positive way.

Informal teaching and learning

I love learning at a personal level, discovering new things. What I enjoy even more is sharing what I learn and seeing that realization on somebody’s face that I first had when I learned what I’m teaching.

The internet as community development tool

Mozilla gives me a platform to do that, and I don’t think there’s a much more important platform than the internet for people to learn and to share what they know. For me here in Kenya, and generally in Africa, with all the issues that we have as a continent, the internet is a really useful tool for us to use, scale out of our problems, and find solutions with people facing similar challenges. **Mozilla gives me an opportunity to do that in a huge way.**

Mmaki Jantjies // Breaking new ground for women and girls in tech

- ★ Head of Department of Information Systems, University of the Western Cape
- ★ Lectures on IT security, IT project management, and other IT-related modules
- ★ Regional Coordinator for the Mozilla Women and Girls clubs
- ★ Recruits women who want to give back to the community



Inviting graduates to give back

I sent out an invite to our post-graduate honor students. I said: “There is this great opportunity of giving back to the community. Write a one-pager telling me which community you would like to give back using your skills, and how you would do it.”

They poured out of their hearts, telling me about where they came from, how these communities are seen as places that can never produce the best, and how they would love to give back.

That’s how the recruitment process for leading Club Captains happens. I go through each of these essays and see which ones can go through onto the program.

That’s also how I identify some of the schools that we work with... the young women tell you about the violence in the area and the challenges that the teachers face. These are the environments that really, really need our help as a society.

Working with Club Captains + building local resilience

After selecting the Club Captains, I go to the schools to negotiate with the principals for space in the school and for a time when we can conduct sessions and the learners can join us. We inform the parents about our objectives and why their girls are part of the extracurricular activity. We try and set up the clubs in a way that they continue after that group of students has graduated, so that we can start more clubs in all schools throughout the province.

We want for the younger ones who come into the Club to feel like, “Wow. This tech club, it’s similar to a chess club or debating club. It’s fun to be a part of.”

Even though we support them it becomes their club — they own it and the school starts owning it as well.

We try to meet every week with the Club Captains — to sit together and brainstorm. We look at the **Mozilla web literacy map** and say, “OK, so this is what we want to achieve with the cohort of high school girl learners, and this is how we plan to impart these literacies and skills to them.” ...We hear what approaches have been used to introduce those concepts.

For example, **in South Africa recently there has been an issue with schools not considering natural hair [as acceptable] for young black girls.** During the group sessions with Club Captains we discussed how we might embed this issue into teaching tech... we heard about the different experiences from the different Club Captains when introducing technology using the everyday experiences of young girls.

Every Friday I rotate between the different clubs. I see, for example, when maybe the club captain is struggling to get those concepts through. I can suggest other ways to try it, other ways to think about it. I rotate to each club, trying to see what is happening, how we can do better, what are the talents in each club, and how each club can be better supported.

Imagining a career in tech

The girls who are part of these clubs are in grade nine. We particularly targeted that year because that’s when you choose your final subject areas to finish high school. We wanted to stimulate the idea of having a career in tech.

When you go to these sessions and you start listening to the girls asking you about “What exactly does a programmer do?” you’re like, **“Now I’ve got you! The word ‘programmer’ is in your mind, something that you would never have thought about before.”**

Even if they don’t choose a career in tech, they get the basics of tech before going on to university, while also creating a safe space where they can talk about girl and women stuff.

Educating educators

When you go to a school principal. You're like, "I am working with Mozilla Foundation and this is what we do." They ask: **"Why girls? Why not the boys?"** You have to explain that this is the situation with girls. These are the statistics: girls are not into tech, girls are not taking up careers in STEM. That's when you realize why it's so important.

Then you have the teachers who start saying, "Actually, what's this Mozilla thing of yours? Can we be part of it?"

Connecting to university

We also had different sessions where the Club girls — as well as other girls from the community — came into the university. We got sponsorship from companies, and we transported all of the girls to the university.

They rotate through the different sessions: motivational talks from women telling them about their journey, learning how to program robots, website development, and in the end we have a dance-off competition.

This gets them thinking about the possibility of a career in tech. And beyond a career, playing around with tech themselves for their own personal gains.

Leadership development for Club Captains

There are times that the Club Captains come to me and say, **"You don't know how you changed my life, by me being a Club Captain, by me being a mentor to other young women."**

I see the Club Captains starting up their own initiatives in different schools in their communities. Taking ownership of their communities. That's what made me realize the impact of the clubs in communities.

Then also, getting the young girls to start asking those questions, to start having those conversations, to **think in directions and in ways that they probably never have thought before.** That's what makes you get excited.

Resource challenges

Resources are a big challenge. The schools that we work in don't have internet or computer labs. The girls don't have phones. We sometimes have to come in with one laptop and demonstrate a whole lot of things with just that. That can be a challenge because we can't get them to be as hands-on as we want.

You have the social challenges. Social challenges with the Club Captains, with the young girls opening up to you.

The clubs end up becoming a space of trust, and you get people opening up about challenges that they face on a daily basis.

It can be challenging emotionally, being there and supporting them and being able to detach yourself from all these challenges they face, and then moving away.

There is also the issue of safety with Club Captains. I have to make sure that there'll be an Uber that drops them right within the school, and takes them right from the school. Because I have to guarantee that safety for that particular Club Captain, even when she goes to the community she grew up in, I have to make sure that she is safe.

Sometimes we call an Uber the driver would say, "When I saw this destination, I contemplated not to come and pick you guys up, because this is not a safe place." It's those kind of challenges that you meet up with. **But if you don't do it, who's going to go into those schools?**

The Mozilla brand

Mozilla is a brand that graduate IT people are familiar with and have always want to be attached to. The mere fact of our Captains them saying, "We're part of the Mozilla group and this is what we do," is a great experience for them.

We have been able to take the university to spaces that they never really knew about because we have a presence within them through our partnership with Mozilla and Peo ya Phetogo [a local NGO].

The growth into other provinces and other universities and rolling out the possibility of a career in tech for young girls — that has been a wonderful experience. **Whether they go on to do tech or not, at least they know about tech. They know what it means to go onto the internet.** They know what a web presence means. They know how to program. It's a skill that they keep for life.

Su Adams // Filling the web literacy gap



“My aim is to excite everyone about technology — its importance and creativity. I love teaching others and seeing the lights come on as they realize how to make something happen, or make it better.”

“No one was doing anything”

Computing within the school had basically been let go of — there wasn't anyone who was responsible for it. No one was doing anything. I had been my school's IT technician, so I said:

*I'll take control, because this isn't OK.
We're letting the kids down.*

So I started a Mozilla Club after school. There was this one 10-year-old boy in Year Six. He had been quite disengaged, quite an angry child at times. He didn't really see why he was at school in the first place. He decided to join my computing club.

We were looking at X-Ray Goggles, and he said, "Oh, this is 'Inspect Element'. I've done this before."

His face lit up. I'd never seen it light up before.

The fact that we were able to bring technology and computing into the curriculum — with tools he could use and relate to — provided an amazing opportunity for him. It was clear that he was much more able than he was letting on, and that **his dissatisfaction [with school] was based on the fact that he knew everything already.**

He felt like no one understood him. He said to me, "I know it already, and I didn't understand the point of being here." He didn't see the purpose of education.

Next, I took him onto Thimble. By using that tool, it sparked up a conversation. Using the Mozilla curriculum, there were opportunities for him that wouldn't have been there before. He was then able to share what he learned [with his class] — and people were excited to hear what he had to say.

Teaching other teachers

When I took on the computing curriculum coordinator role at my school, I had a challenge on my hands.

The teachers did not want to teach tech at all — for many, the lack of leadership allowed them to avoid teaching computing.

The feeling was that tech was scary. It was problematic. Nothing ever went smoothly. And a new computing curriculum was coming in, which was even harder and more complex than the previous.

Then I came across the Mozilla website, and I saw Maker Party and thought, "Ooooh, that sounds interesting. I wonder what that's about."

I had a deeper look and thought, "This is what we need to do. This is how I'm going to get computing taught within the school."

Getting teachers, parents and kids together

The Maker Party is a movement about sharing ideas. We were the first primary school in the UK to run a Maker Party, as it turns out. We did a curriculum day where I brought in companies from outside to run sessions, I provided some training enabling the teachers to run sessions as well. Then on a Saturday we did a technology fair.

The parents came in, and the teachers then had to be responsible for certain stands themselves. Whether they realized it or not, it was **embedding their own learning** that they'd achieved and provided them with the opportunity to feel successful as well.

A lot of the things that we used were free online resources like X-Ray Goggles, Thimble and Scratch — so the children had the opportunity to upskill themselves over the summer.

Later that day, one of my colleagues said: "Next time can we do it for an entire day, so we have longer for each activity?" That was that — it achieved everything I wanted. **They wanted to do more, and they had the skills to do more. They just needed to be able to see that it was something they could do.**

After that, the curriculum took a big leap, they were actually doing it and implementing it.

In the following year, we ran another two events, and the teachers were teaching other teachers how to deliver the content. That speaks volumes. **It's easy to pick up the curriculum and run with it, whatever level you're at.**

Achintya Rao // New research practices through social learning + working open



When I got invited to attend the Working Open Workshop in Berlin, that was really a big occasion, a very transformative experience in many ways. Over those two days, we were taught how we can harness collaborative tools to have our projects get more structure, direction, and to communicate our research aims and objectives.

Mentorship + paying it forward

I got this great mentorship from Abby and Aurelia in the lead up to the global sprint where they said, "OK. How's it going? How're you doing this, how're you doing that?"

Then later they contacted me and said, **"Hey, would you be up for passing this on? Would you be up for mentoring someone else?"** I said, "Yes, it'd be a pleasure, if you think I'm in a position to do it."

It's easy to feel like you're not good enough, or like you can't really do it. They said, "Yeah, go for it! Do it!"

So I said OK. I took it up and in the last six weeks, I've been mentoring two projects.

Virtual support structure

There's now this virtual support structure of people that I can ping and say, "Hey, what do I do here?" Or, "Have you faced this?" Someone who'll get what I mean. That's very helpful. It's very useful to have that group of people who care about this, for my science and for using tools to further science.

That whole network, that group of us who went to Berlin earlier this year — a lot of us have stayed in touch. These are people I didn't know six months ago; we now talk regularly about our work, our research, etc.

One of the guys in our Working Open Workshop was the Open Science fellow last year, Rik Smith-Unna. He's been tremendously helpful with my research when I struggle with code. I ping him because he is a wizard with R [programming language]. Every time I struggle with something, I ping him and he looks at it and he says, "Yeah, this is what you need to do."

He didn't just give me the solution — he would write comments in the code, snippets that he'll send me saying, "This is what this bit of code is doing." This was in itself useful, but also showed me the value of working that way for someone else.

The value of social / experiential learning

It was rewarding to see that some of the things I'd learned were things I could pass on. That's a good way for us to expand this knowledge base. It's one thing to write something in a document that no one ever reads — there's already great articles on the internet about how to write a good readme file, how to have your project running openly, how to use collaborative tools, etc.

But when you see them written, you don't have a practical exploration of what it means to do those things. When you have a project and someone sitting going, "Try this for two weeks and then come back and tell us what you think" — it's much more meaningful. It's tangible, something that you can really put your finger on and say, "Aha, that worked for me. I can see what that article actually meant."

Changing research practices

Working open has directly changed the way I work on my research. I have been exposed to workflows and paradigms that I would never have come across before. It has directly impacted my work, and it has also been a rewarding experience in knowing that I can make a contribution.

Hillary Kolos // Relationships, trust, and shared learning



★ Director of Digital Learning
at the DreamYard Project

The people I've met through Hive have become not only trusted colleagues, but good friends, which I think is important. We're not competing all the time, or just going through regular business and sharing some ideas.

I feel like I really trust the people I work within the Hive. That means that I can be more critical and more supportive.

It's not just like we're all patting each other on the back and saying, "Good job," and sharing a couple of things — **we really get deep into the issues that we're all facing.** I feel like we can push on each other, whether it's hall meetings or on the sidelines. We can ask critical questions and they're received well by Hive headquarters and each other. Whether they're in Hive still or not, those folks I met are still friends.

Researchers add value

Having researchers as part of the group too, like Dixie and Rafi, who are part of the Hive research labs — when they came into the mix, **it felt like someone was helping to keep track of some of those questions and really explore them.** That, to me, felt very different from any other network I've been a part of.

Access to funding and new partnerships

Hive helps us find funding to go to conferences. They talk about our work to other people. They connect us to other people around the world who are doing similar work.

DreamYard has been able to receive a lot of funding through Hive. It's enabled us to partner with organizations we weren't able to previously, which has allowed us to offer lots more opportunities to our young people, which is what matters most.

Our young people are able to do more because of the partnerships funded through the Hive.

Part of what Mozilla's done beyond funding is: **they ask a lot of questions in the proposal that require us to be clear and create solid goals and outcomes** — but then once the project is a go, I feel like they trust us to do it in our own way.

Trust + innovation

They're looking for innovation, so they're not being too prescriptive about what we have to do. They have tenants they hope we are holding to, but it really feels like they trust us, and that allows us and our partners to dig in and figure out what makes the most sense, and what's going to be best for the program and for the participants.

Working open / documenting what works

Mozilla pushes us to document what we're doing in the open and share that. I like that, because it helps me keep track of what we've done and helps me feel like what we're doing isn't just for us.

Other people can learn from it, and that gives me even more drive to do it well.

I think sometimes I go a little overboard on documentation, but I feel very encouraged and supported by all the folks at Hive to share what we're doing. Then when I can hand over documentation to them, I feel like they support us a lot in sharing that.

Kylee Durant // 21st-century skills and careers for veterans



- ★ Chief Operating Officer, RallyPoint 6
- ★ Provides career resources and peer assistance for service members, veterans, and military families

RP/6 — RallyPoint 6 — helps military service members, veterans and their families develop a clear plan for their path forward. We want to empower the people we serve to realize they can do it for themselves. That's our approach to helping them get to that next phase of their life, and creating an action plan that's individualized and works for them.

Decoding what technology means

What the Mozilla workshop with RP/6 did was decode all of the gray around what technology is. It empowered people to view technology in a way that was meaningful to them — not just as a potential career, but personally.

How are they interacting with technology? How does it impact their life? How can they participate in a positive way that will positively affect the person sitting next to them, or their broader community?

21st-century skills + resume building

For RP/6, this workshop opened up the realm of possibility and breaking outside of just doing a workshop to give somebody a certification or a resume review. It provided a deeper understanding of 21st-century skills, how those skills can help them, and how they can groom them as they transition into the civilian sector.

There's value added to the layers of their action plan. It's not just writing their resume — it's writing their resume *and* thinking about how they can showcase that they have a deeper understanding about a certain area. Now they can communicate that better.

Especially for today's world, in the civilian world, it's not about where a military person will say, "Well, I managed a \$2 million budgets of assets and goods." For a civilian it's, "I was able to utilize software." Because they did, they utilized software in the army — but you need to tease out that 21st-century skill. **That's what employers demand today.** That was really powerful for people to understand how to better communicate their experience and tease out those things that they actually do, but weren't saying they did.

Mozilla as atypical partner

Mozilla wouldn't be the typical partner we work with — it was just a cool idea and I was really passionate about working with them. It shows that good ideas can cross sectors. Cool ideas don't have to have limits.

Our partnership proved to me is that I can continue to challenge myself to think bigger and more creatively about how to serve people better. It showed I shouldn't put boundaries around that. It's like when me and my kids watch *Alice Through the Looking Glass*, and she says, "Nothing is impossible." That is the theme I took away. Nothing is impossible when you have two groups of people who are committed to working through problems and providing real solutions for real people.

Part 3 //

Driving public demand for better privacy and security

Shauna Dillavou // “The open internet doesn’t exist”



★ Founder and Director of CommunityRED, a nonprofit delivering secure technology solutions to citizen reporters under threat

The open internet is something that does not exist yet. The internet and tech are infrastructure created *for* a certain kind of people, *by* a certain kind of person. Built for non-targets by non-targets. They are the ones served well by it.

A lot of the internet is unsafe for other populations. The structure exploits those who are different.

A woman recently suggested that Twitter should deal with their harassment problem before tackling whether or not to increase their character limit to 10k. **She has since had to block 850,000 abusive accounts.** That’s more than the population of the District of Columbia. Twitter is not a safe place.

We have few choices. Another example: either you’re on Facebook or you’re not. **In some countries, you can only choose between Facebook or no internet. That is not a choice.** We don’t get to choose things that reflect our values. We don’t get to determine who we want to be, or how we should act.

An open internet would be one where we have choices and options and the ability to express ourselves how and when we like.

What CommunityRED does is a drop in the bucket, a tiny Band-Aid on a gushing wound. We only reach the most urgent cases. We try to help them before someone shows up at their front door. We create alleys — but what is needed are broad avenues.

A broader approach to privacy

At MozFest I met Harlo Holmes (I already knew of her) and we worked on a steganography tool. But we could not sustain the project without funding. There were three or four of us working on it.

Overall, the privacy track at MozFest [2013] was disappointing because it was basically a bunch of dudes telling you that you were doing it wrong. I would like to have seen a broader approach to privacy. If it had been a stellar experience I would have found the money to attend the following year. I've taken a step away from Mozilla's privacy stuff.

It would be nice to talk to others who are working to have impact and doing privacy and security work from an authentic place.

So many people in the security field have a hero complex. They want to be a savior. They talk over you. They don't let you ask questions.

I'd like to speak with people with aligned values and who also work internally — in themselves and in their companies — to reflect those values. We work hard to maintain this internally. We leave space for each other. We are careful not to interrupt each other. Cutting people off curtails their expression.

Making room for vision and inspiration

I would also like a space to discuss making room for vision. There are weird pressures to work all the time, because working means you are doing something. We try not to do that, because that is the death of inspiration and mission. I'd love to be connected to people who share that value. Creating space for vision, innovation, inspiration. So much of innovation is focused on Silicon Valley, San Francisco, and privileged white men. I'm curious to see how people are creating avenues for innovation and success for any kind of person.

Dorine Flies // “The biggest library on the planet”

- ★ MozFest Youth Zone space wrangler and youth-led project lead
- ★ Youth-led EU Connecting youth with community opportunities
- ★ ionCube HR and recruitment manager



I think of the “open internet” as the biggest library on the planet. In a sense, I visualize it like Hogwarts Library — there’s lots of books that you can read, but there are some books that will literally, as well as figuratively, bite you. We don’t have many curators — nor librarians — to translate it for us. To tell us which is which.

The internet has so much scope for helping us empower ourselves and show us the “how to” — from joining a white hat community to learning how to use Kali Linux and how to bake a cake. But there aren’t many people signposting that belong to the “average person” group, which other average people can relate to as representatives of themselves.

We — especially the pre-millennials — as the users and advocates of the internet are a minority in an ocean of people. Social action is a well-known activism platform but it is not being directed at how we in a digital age, we can keep ourselves safe. **Why aren’t we having a white hat versus black hat conversation?** Using technology for social good, rather than for criminal networks to meet other like-minded engineers? Can’t we be honest and open about the problem for a change? Do we have to wait for a car crash before we start educating people about the use of seatbelts? **This is not just a problem that affects industry but everyone and anything that is connected to the internet, such as IoT devices.**

Talking about hacking is like talking about sex

We’re on the cusp of the battle between the white hat and black hat community. Who’s going to win? At the moment, the black hat community is going to win. They have more people,

money, resources and importantly, not only is it cool — but exciting! Industry, on the other hand, has a 70% skills shortage and corporates recruits only from certain universities.

This is then compounded by ignoring searching questions from our young people. Challenging questions get the brush them: **“You’re only 12. Why are you thinking about this?”** It used to be the kid might react by just turning around, going behind the back shed, and smoking a cigarette. Today, however, that kid doesn’t just go smoke cigarettes anymore. Instead, kids get on their iPad or computer and end up on Reddit. **And Reddit is a portal to the black hat community, it has amazing step-by-step guides on it which cannot be policed.**

Schools need to start having these ethical conversations early on. There’s nothing wrong with hacking; hacking is part of a process.

We need to learn the process of hacking because at that point we can also understand our systems. We can fix our cars when they break down but 99% of the population has no clue how easy a “man in the middle” attack is, never mind that it even exists. So how can they protect themselves?

At the same time, we need to have a conversation with the kids about why hacking somebody’s personal computer might not be the nicest thing to do.

Socially, we would not walk into somebody’s house and steal all their photographs. So why is it appropriate to do so online?

Your average community doesn’t want to talk about this, because it’s like talking about sex — we just push it to the side and delay the feeling of moral discomfort. We bow down to social norms and wait until society tells it’s the right time. But, for those in the black hat communities who choose to use their skills and talent for antisocial or criminal reasons, they are more than happy to talk about these things and are not constrained by society’s version of social norms. **They work from an entirely different rule book.**

Julian Stodd // The internet as a “consequence-free space”



The internet is viewed incorrectly very often, as a consequence-free space. Or at least, to put it another way, we are able to claim a space that is free of consequence.

There are plenty of young people exploring their sexuality, exploring aspects of their own identity, who are able to engage with other people in entirely anonymized manners. They're able to rehearse their narrative of who they are themselves. They're able to do that in a supporting community.

There are many examples of how this ability to claim a consequence-free space is a force for good. I would go far as to say there are people who are alive today because they have been able to find this space to explore, to share without judgment, to connect in many ways.

The flip side of that is, it's a space without consequence. It's a space that we have not yet figured out as a society how to use, how to manage, how to behave in. Many of the examples of abuse and bullying — at a really high level of generalization — are examples which are facilitated by the technology, but they speak of wider cultural failings.

The mistake, I believe, is to blame the technology or the technology provider because, essentially, these are cultural challenges. Just to stick with a simple example, if you have men who are abusing women on Twitter, or on any kind of public forum, it's likely that not many of those men would do it in public.

They wouldn't do it to your face. They wouldn't do it in front of their wives, their mothers, their sons, their fathers. They do it because they're in a space where somehow, they believe, they're in a consequence-free environment, that some different set of rules apply. I believe that we will see a continuing evolution of this.

On the one hand, we see that there will be technological approaches to dealing with this in as much as the rise of AIs, the rise of bots may just lead to, for example, an ability to connect with those people and swamp them with responses and input to the point where they're simply unable to function.

We may see that real-time semantic analysis of dialogues will allow for some kind of silencing of those voices, although that may leave us with different ethical challenges. **Are we prepared to put up with the silencing of voices we don't like?** Even if for all sorts of really good reasons?

Of course, the same technologies that can be used to counter bullying are the same technologies that can be used to counter political opinion or dissent.

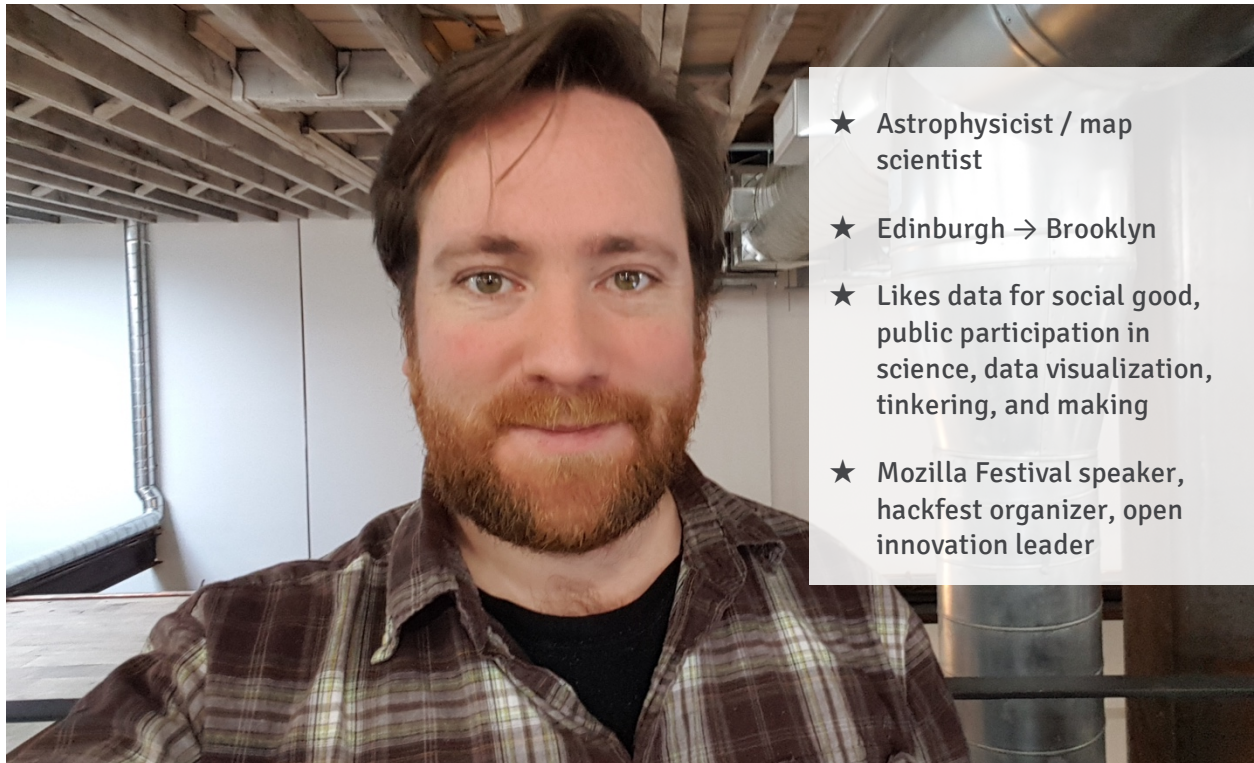
The wild west vs. gated communities?

In the wild west of the internet, we may see **the emergence of entirely gated communities** where people will choose to spend their lives, because they don't want that paper-thin margin that separates them from the abuse. There will be ways of controlling that, because most people don't want access to everything. They want a safe space to inhabit.

Part 4 //

Growing MozFest as a movement focal point

Stuart Lynn // Cross-discipline collaboration



- ★ Astrophysicist / map scientist
- ★ Edinburgh → Brooklyn
- ★ Likes data for social good, public participation in science, data visualization, tinkering, and making
- ★ Mozilla Festival speaker, hackfest organizer, open innovation leader

“Open” means others can join what you’re doing and combine their data

I’m a researcher and a data scientist specializing in mapping data online. We turn geospatial data into beautiful maps and visualizations, working with journalists and nonprofits. The goal is to uncover insights that can be used to help make decisions.

Success for me means empowering others to make an impact. “Open” means others can join what you are doing and combine their data. This can reveal patterns.

The open web and open data give you access to this broader context — for your own personal data and for others.

We partnered with Mozilla to run a hack day in New York City. Thirty people came and spent forty hours working on a space apps challenge as part of a NASA competition. I also attended the Mozilla Festival and got to meet others interested in the topic — and from those connections we started a planetary sciences project. **Together we built a Mars Geocoder.** You can ask about a given location on Mars and it will give you the US government name.

Increasing public participation in science is important. When I was working on my PhD in Scotland, I would always talk to people about the universe. That continued when I worked at Zooniverse and got involved in citizen science.

Helping people think about and analyze data can help them make better decisions and improve their lives.

Sparkling collaborations, crossing boundaries

Mozilla is good at creating networks and providing opportunities for people to meet and spark collaborations. At the Mozilla Festival, for example, our project was in both the science and journalism tracks, and we interacted with folks from advocacy and privacy. It's rare that those communities come together.

That's actually what Mozilla does best: help people cross boundaries.

It's impressive how many people Mozilla touches who are not part of the core organization. They're good at movement building. They enable cross-discipline collaborations.

They help people hear each other's voices.

It's valuable to have an organization focused on generating those discussions and pushing those agendas. Otherwise, **it's hard to find time and breathing space to have those conversations** and think about these things.

Janet // MozFest delivers serendipitous encounter + support



- ★ London ↔ Tanzania
- ★ Volunteer for the Tanzania Development Trust, an anti-poverty org
- ★ Was a teacher in a London school for 30 years, focused on IT
- ★ Runs a portal for community science teachers; passionate about digital inclusion — especially engaging girls

Chance MozFest meeting leads to crowdsourced mapping project to protect vulnerable populations

At MozFest 2016, we had a stall at Friday's Science Fair and we ran a workshop about our project, **Crowd2Map**, which aims to get rural Tanzania on the map — starting with an area of Northeast Tanzania where we have a safe house for girls refusing female genital mutilation.

This project came about through a chance meeting at MozFest last year, when I went to a session about citizen science. I was explaining the issues about the lack of maps in the areas where we work, and Crowd2Map Tanzania came out of that.

Together with Egle Marija Ramanauskaite — whom I met at MozFest last year — we've set up a project using the Humanitarian OpenStreetMap Team Tasking Manager. We've completed 86 percent of our first map, covering an area of about a thousand square miles. **We have around 300 volunteers who are mapping through satellite images, tracing roads, villages and buildings.**

The safe house is run by an amazing woman called Rhobi, who is an FGM survivor herself. She nearly bled to death when she was 13, when she was cut against her will. She does amazing advocacy work in the surrounding villages of Serengeti where girls are particularly at risk of being cut, **but her work is hampered by the fact there's no map of that area.**

Our project gets volunteers from anywhere in the world to map from satellite images — and to get people on the ground in Tanzania to add the names of villages and places, via a free smartphone app called Maps.Me.

Our MozFest session was about showing people this project and getting more people involved. We even managed to have a live link with the safe house. The Wi-Fi held up, which was great.



From closed groups to open maps

We're communicating with people via a Facebook group and WhatsApp groups. A number of different people have contacted me to say, "Oh, my village is not on the map. Please, can you get it on the map?" I explain to them how with Maps.Me and with OpenStreetMap — then we follow up with screenshot.

I'm communicating with people in rural Tanzania that I've never met. Now they say:

“Oh, now I can find my village on my map and I can show potential donors that we want to get electricity or water to this area. Now they can see where it is. Now we exist. Before that we didn't exist.”

I've had a lot of messages like that. And also from people like **District medical officers who are overseeing the work of maybe 500 clinics in the area but they don't have a map of them** — they want to work with us to develop maps of those areas. Last month, I talked about this project at *State of the Map*, which is an OpenStreetMap conference in Brussels. I met some amazing people there particularly from Africa.

Open innovation → development

This project puts mapping data into OpenStreetMap so that everybody can access it.

We've been also accessing open government data from Tanzania about the location of every school and clinic, adding that into OpenStreetMap by copying and pasting the latitude and longitude, looking at a satellite image and saying, “Yes, that's the school” and labeling it.

That's open government data that's been available for about a year now in Tanzania. OpenStreetMap is an amazing example of open data. I'm always still surprised that people don't know more about it, particularly in areas that are not well mapped.

Back to basics

Teaching girls to code is no longer my focus. I'm more interested in getting access to things that are on more basic level. We're working with government secondary schools in rural Tanzania that don't have electricity or water.

If they teach IT — which they quite often do — it is by drawing a picture of a computer on the blackboard and labeling it.

Teaching people to code is further down the line. Now I'm more interested in mapping and journalism, advocacy, activism, women's rights.

Serendipitous encounters and cross-pollination

I've always been struck, particularly at places like Mozilla, how welcoming people are and how open to helping you. At my first MozFest, I didn't really understand what was happening. I sat down at a table because there was one spare chair there.

It turned out, after I'd been talking for 10 minutes to the man next to me who'd flown in from New York that morning, that I had joined a high-level meeting about the forthcoming UN summit on data security.

I'd just inadvertently sat in the middle of their meeting, because it was in an open space at MozFest. When I apologized and said, "Oh." He said, "It's fine. We're all trying to do the same thing, which is about digital inclusion."

Another time I ended up sitting next to Mitchell Baker. I ended up sitting next to her. Just chatting probably about something ridiculously stupid. Then someone else said, "Do you know who that is?" **There is no hierarchy. Anyone would talk to you.**

Feature request: "tools that makes it easier to find people"

MozFest is pretty cool. I don't know if there are any tools that make it easier to find people — rather than randomly walking up and down the stairs and bumping into people or tweeting at them.

I don't have a very good handle on the rest of what the Mozilla Foundation is up to. I know that they do a lots of really amazing projects particularly in Africa, but I don't really know what they are and how I can get involved with that.

For example, I found out this weekend about fantastic projects happening in Kenya and it would be great to try and replicate those in Tanzania. **I don't know the best people to talk to or the best way to take that forward.**

It would be really interesting to find out about other things that people are doing. Find out if there is any synergy or there is anything that we can tap into. Exchange ideas about what we might work together on.

In the short term, I'm looking for help with this specific project. My background is in educational technology, and we're working with schools and communities in rural Tanzania. They are very disadvantaged in terms of technology, as well as other things.

So I'm looking for assistance in good practices, in small grants, or access to second-hand smartphones. And I'm also looking to connect with people working in similar spaces who might be interested in collaborating.

Egle Marija Ramanauskaite // Science as collaboration



Cornell University researchers discovered some promising leads in understanding Alzheimer's link to reduced blood flow in the brain — but they were stuck. They couldn't do anything with it, because the data analysis takes so long, it would take *decades* to get closer to the treatment.

The Director of the Human Computation Institute came across this research and realized that the data is well suited for citizen science. **We can put it on an online platform where everybody can look at it and help us analyze it.** The project is really new, but the biggest sense of success we are still riding on is just the fact that we accidentally discovered this fit and were able to put it out there.

Finally, we're bringing this awesome research to the public.

We are trying to engage everyone, all kinds of communities, kids, everyone. **We have an extreme amount of interest from the retired population, so we're starting to bring offline sessions to retirement communities and engage them.** That was a recent big win.

Just a few weeks ago we had a session in a Florida retirement community. One of the members ran it. I wasn't there, but people brought spouses with Alzheimer's and they all engaged and joined in.

The big picture is: we don't just want to analyze all the data — we want to empower everyone to help, to have an impact on a disease that affects everyone.

Broadening the audience = design & UX challenges

I know a lot of citizen science projects, but as far as I know, ours is the first one that is actively trying to engage such a wide community of people. To give some background, we're building this project on the Stardust@home project, which was looking for tracks of stardust in images of aerogel. It had quite a small community — just a couple hundred active participants, who had a specific interest in looking at those images.

Now we're working on the same platform, but we need to make the interface meet the needs of *everyone*, including the less internet-savvy populations, and participants with disabilities. The user experience needs to reflect that. **That is a constant challenge.** We run sessions and conferences to get the community to help us, give us tips about what to do, how to make it accessible for everyone.

We have quite a limited budget and just a few people on the team. I have no design experience — but I'm the main designer on the project — which makes it very challenging. The community helps though. We have a growing online community, including the forum, and we get feedback at various events.

“It changed my career path”

I come from an academic background, and I was very fed up with the academic world — just doing science in a strict space with strict rules. Then I discovered citizen science, and realized how much is out there, what tools are available, how science has become open, especially with virtual citizen science.

It literally changed my career path. I grabbed the opportunity and left academia to do open science.

The main thing was **people seem to be losing track of why they are doing science.** For me, science is knowledge gaining, it's improving the world with knowledge.

Science as collaboration vs. competition

I come from bio-sciences, which has gotten really competitive. Many research labs, instead of collaborating, they compete. **They waste resources and sometimes waste their careers on competition instead of doing things together and making them open.** The main thing is to publish as many papers as they can in “good” journals — *not* open-access journals. That was really frustrating. I started my PhD in a lab that was a typical example of this. I had no room for creativity. I had to do exactly what my Principal Investigator told me — so she could publish in a better journal. I thought, “No. This is not science.” So I ran from there, and then discovered citizen science, which is exactly what science is. **Science is everyone's and everyone can create that knowledge.**

Democratizing science and data

Since I come from the science perspective, the open internet for me means, first of all, a tool to democratize science and data. It's making things that have been restricted to certain communities and spaces open for everybody. Open means keeping it always free, always accessible.

I'm a believer in the community. It's the community who makes the project alive. For example, in citizen science, the project is the data, plus the scientist, plus the people, *and* the interactions. **Only with the engagement of the community can these things survive.** I am also interested in learning and creativity in citizen science, which cannot happen without community either.

Cross-pollination at MozFest

I came to the last Mozilla Festival by accident. I was doing a citizen science internship in Geneva. They were running an open workshop here, and grabbed me at the last minute, so that's how I ended up at MozFest 2015. This was my first involvement with Mozilla.

While at MozFest, I met a lot of other people working in citizen science, open science and other things. **That again has shaped the next steps for me.** For instance, I met Janet Chapman. She approached us to see how she could bring citizen science to schools in Tanzania.

Then I started directly working with her. We wanted to set up a simple citizen science project, so we used a generic data collection platform and we realized that we can use that to make a map of the country.

The Crowd2Map project was born. That has been a big part of my life over the last year. That's been really exciting.

I really like the aspect that even though MozFest is a Web conference, **we're encouraged to talk to people, and not with devices.** That doesn't happen at many other events.

You come, grab a random person, and just start talking to them like you've been friends forever. It's this atmosphere that's really awesome.

I think innovation — any kind of creativity — can only come from being in a community. Talking to each other. Stories help to build that, instead of just facts. We don't tell stories enough. That's why I've really wanted to come [to this interview process] and see what this is. It's the community link.

Part 5 //

Making MoFo a more diverse, high-impact movement org

Duncan Washington // Empowering problem-solvers



from the community

Community as problem-solvers

When you have volunteers who are in the community, they're problem-solvers from the community context. If you go to India and appreciate the volunteers in India, they'll have a different way of solving their problem based on their context. If you come to Kenya, same thing.

The fact they're from the community impacts how they approach solutions. The *structure* might be coming from above, but the solution is coming from *their* context.

*They can communicate to you because they're empowered.
They feel they're part of the community.*

The community, the [Mozilla] clubs, as much as they get structure and guidance from above, tend to also have the comfort of using solutions on the ground to be of impact in society.

When we were creating workshops, or an intervention for the Digital Skills Observatory project, we involved the Mozilla community and said, “OK, how are we going to address these topics? How are you going to teach respondents these topics?”

The participatory factor

That participatory factor gives a lot of room for engagement, but also for more learning and impact.

That has been a big plus compared to the hierarchy of where you come and direct people what to do.

We say something like, “We’re doing digital skills. You guys are going to identify with the curriculum, and we’re all going to make this curriculum together in each community. We’ve got some frameworks, some skills maps, and our end goal is to build your sense of self-efficacy and connections within your community.”

This is critical in the sense that, when you go out to ask questions, you might be asking the wrong ones. **When community raise an issue or an alarm, that’s a key problem** — not what you perceived or structured in a method.

Room for improvement

I would say, where there’s a room for improvement is based on the advantage that you have in terms of the volunteers.

Having a huge number of volunteers from different regions comes as a very big plus.

I don’t know how other countries have worked out, but based on what I saw in Kenya, you have a rich number of volunteers. Engaging them to be active participants in developing, designing, being part of interviews, being part of the dissemination — I think that’s a big plus [for the Mozilla Foundation].

Su Adams // Challenges with Mozilla program and software changes

Disruptions to Appmaker

I've got a couple of areas of challenge. In July, 2015, I decided to run an Appmaker family Maker Party, so that children and families could work together over the summer holidays and build something.

I arrived to run this session and everything [the web site and product] had changed. The whole format of how everything was stored on the Mozilla website — it was all completely different. I was like, “Oh my God.” I was able to just run with it, but it meant that I couldn't quickly find the information I needed to find to be able to display the examples that I'd set up.

It was fine, but it wasn't ideal, and now it's gone entirely. We ran that session in July 2015, and I think by September or October Appmaker was gone. It was such a fantastic tool. I've spoken to lots of people who feel exactly the same.

CoderDojo said the same to me. In September we had a meet up and someone said, “Oh yeah, Mozilla tools are great, but what happened to Appmaker? We use it loads.”

When I highlighted that it was gone and it was a real shame, the answer [from Mozilla] was that people weren't using it. I asked what the measure was for that, and they said: the number of people who logged in and saved something.

Inability to save and share as barrier to youth

I said well, “**As a school we couldn't log in and save something, because the children couldn't actually create accounts because they were younger than 13.** We were just creating on the fly, and then things may or may not get saved. I said maybe you need to speak more to the community, **find out who's using what.**”

The whole account issue is another area of real contention. It's holding me back and stopping me from being able to go into schools and encourage them to use this platform. Every time I have encouraged schools to use the tools on the Mozilla platform, it's ended up with them saying, “I couldn't work out a way to actually log in. It wasn't easy enough for the kids to save their work, so now I've got no assessment evidence.” **It's to the point now where I can't go and talk to any school, it's pointless. That is a real challenge as I'd love to spread the word more actively.**

The same is true with X-Ray Goggles and Thimble. With Thimble, you want to be able to go on and build on what you've created. You don't want to just spend one lesson and be done.

With X-Ray Goggles, you want to be able to share the creation. Without accounts, you can't save it as an HTML page that's live on the internet, you can't share with other people, which is defeating the objective to a degree.

It's not really open and free for all, is it? We're creating these stoppers within the environment that's trying to promote open and free for all.

Cultural translation / tone is USA-centric

One thing that I struggle with a little bit, as a British person, is that sometimes everyone seems a little bit too positive. And sometimes that relationship-building, the speed of it can be a bit fast, so people are saying, "Well, I feel like we've known each other for ages," and I think, "You only emailed me yesterday."

Sometimes it doesn't feel quite as sincere as it should, and in the back of my mind, when people say lovely, positive things, I think, "Yeah, I think you probably say that to everyone," which is probably the cynic in me, but I think it's worth noting. I hope I'm being constructive.

I think there's a possibility that Mozilla are worried about giving any kind of criticism, even when it's constructive criticism. It's not somewhere they're prepared to go. But, for me, **any of the positive things they say are validated by constructive criticism.** I want to be able to improve.

Mmaki Jantjies // Challenges

Unclear aims and objectives

At the beginning, I used to struggle with the Mozilla structure, and the Foundation as a whole, and with the Foundation's objectives. We went to the Mozilla All Hands, which was such an eye-opener for me because I got to learn what the Mozilla Foundation is all about.

I've always known about Mozilla, but I didn't know about the Foundation. What do they aim to achieve, especially with the web literacy and the women and girls' aspect of what they do?

The communication is not always clear about the aims and objectives, and what are we all about? That doesn't always come out clearly. Lack of local co-ordination

Another thing that Mozilla doesn't do very well is consolidate people who work for the organization. For example, just the other day, I saw our university Twitter account retweeting somebody saying, "We are starting Mozilla Science Clubs at the University of the Western Cape." I'm like, "That's like my doorstep — like you guys are probably in the next building."

You are doing a Mozilla initiative. They may be different, but at the end of the day, they have the same objectives. There could be a lot of synergies where we could work with each other. There's no consolidation to say, "Oh, so and so is there working on this and link up with them."

It becomes as if it's two different organizations. Yet, we're in the same institution.

Hossein Derakhshan // Mozilla as collaborative open system

Thinking + research on the open web's decline

My biggest challenge now is the lack of space for a serious kind of thinking and research about the socio-political implications about the open web's decline. I know that Mozilla has some fellowships, but the fellows selected are more technical — more coders. The focus is on technical aspects rather than socio-political aspects. It has been challenging to situate myself within a research group, or even an activist or advocacy organization.

“You would think some collaborative open system would emerge”

I think Mozilla is kind of lost now. They don't know how to advocate for an open web. Their focus is too technical. They are probably not open enough to the world.

With this huge network of people — and all of these coders — you would think some collaborative open system would emerge to generate ideas on how we can revive the open web. And then work on these ideas. Even ways to crowdfund it.

Imagine a Wikipedia-type model that would benefit these causes, crowdfunding these sorts of websites and tools. A GitHub model for example. There are a lot of ways Mozilla could expand its reach and engage millions more people around the world. But they need to see a little bit beyond technical aspects.

Julian Stodd // Digital inclusion beyond access and literacy

The open internet, in the simplest sense, is a space of potential. Ultimately, for me anyway, the internet is a space of connection and a space of sense-making. By which I mean, talking beyond the internet purely as infrastructure, but including the technologies and capabilities that are offered on top of it.

For example, the search engines allow me to find stuff out. The multiple socially connective tools allow me to collaborate.

The democratized nature and anonymized nature of the internet allow me to explore, rehearse, and prototype under many identities.

I do have an overwhelmingly positive view of how the internet transforms us. I use that word very deliberately because I believe that, again, the highest level of the internet is an extension of our universe in many ways.

The internet is not a tool that we use. It's part of our existence, increasingly part of our cognitive process and setup.

We see the very sociology of a behavioral characteristics are changing as a result of this new space opening up. Communication technology was primitive and used to keep us apart. Now, it keeps us together. The distance of geography used to keep us apart. Yet now, it's almost irrelevant in our communication. That's the positive side of it.

New opportunities and inequalities

The flip side of the challenge, is: we think often of the internet and the technologies enabling and facilitating, which it can be. **It helps people to lead better lives. But, also, it can open up new spaces of inequality.**

In two recent instances [where Julian mentors female microentrepreneurs in developing countries], the husband of the woman involved had to interview me first, with the wife, to understand if the ideas that I'm going to share or the perspective I'll bring is one that is aligned with the local cultural values.

In one instance, the husband was able to decide that he didn't want his wife to be mentored because that wasn't fit, for whatever reason.

Digital inclusion beyond access and literacy

That's interesting because it speaks not only to a lack of access or understanding of technology, which are very often the factors we focus on — “How can we get technology and signal into people's hands?” — when really **it has to do with our global cultural differences and the inequalities that come about because of it.**

It speaks to the wider emergence of a globally connected space where the participants are separated not just by geography, not just by law. **We're also separated by moral and ethical boundaries.** If the technological challenges fall away, those challenges will likely come to the fore.

David Humphrey // Insights from long-term participation and engagement



- ★ Professor, School of Computer Studies at Seneca College
- ★ Founding member of the Centre for the Development of Open Technology (CDOT) and co-chair of the Free Software and Open Source Symposium (FSOSS)
- ★ Mozilla educational liaison and contributor since 2004
- ★ Recipient of the Governor General's Synergy Award for Innovation

“We’ll help you because we think this work is interesting”

I was working on a research project at Seneca, and we needed to show off the capabilities of a piece of hardware. We needed some software we could modify that would let this company demonstrate what it was doing, in order to take its patents further.

We decided on doing something with a web browser. We knew that Firefox was open source, we all used it. This was in 2004, but none of us knew what we were doing, or how you would ever accomplish what we wanted. I went to Mozilla’s website and there was an email address, partners@mozilla.org, and it said “If you want to work with us email this email address.” So I did.

John Lilly, who would go on to become the CEO, responded and bounced me off to people working in Toronto, like Mike Shaver and Mike Beltzner — long-time people in the project. They said, “Yeah, we’ll come meet with you.”

I had grant money. I thought, I'll just hire Mozilla people to come for a day and educate us. They came and said, "You don't need to pay us. We'll help you because we think this work is interesting."

That set the stage for how I've worked with Mozilla from then on. If you're doing interesting work, people are willing to work with you.

That has been the model that we've followed since then. As a result of that, we built really good relationships, which is the most important thing. Those guys became friends, still are, and we just kept working on things. Once we'd get done one thing, they'd say, "It'd be cool if you could do such and such. Do you guys want to try and fix this?"

My involvement with the Mozilla Foundation followed not too long after. The foundation wanted to support me in my educational work. They liked the idea that I was bringing in new people and producing this culture of education around contributing to Firefox.

Working on projects both with the corporation and the foundation has been my professional focus since then. I have taught and worked on this incessantly.

Teaching how to participate in collaborative projects

I use Mozilla as a large example project. Every year it's different — we work on something for Mozilla, a feature in Firefox, or a new thing that the foundation wants. **That coursework typically spins out into research projects.** Some of the students continue on with me through our lab, the Center for Development of Open Technology. The work continues for a year or two before we finish whatever it is that we took on.

We're not only helping those students to understand how to do something — the state of Mozilla changes as a result of us being in there.

I'm not just teaching "Here's a programming skill you need." or "Here's how to use this Git command." That's relatively easy and well-documented. **What are the subtle ways that you participate in evolving something?**

You have to be able to interpret cues — over the web, or over a bug report, or a few lines in a review, or an email — Why isn't this person responding to me? What does that mean? What's normal? How long it should take?

A bike lane for students

A big part of what I teach is how to participate in collaborative projects. **I try and set up a bike lane, so we're on the same road that Mozilla's on, but we're off to the side.** We're going a bit slower.

There's a bit of a barrier that's protecting us from traffic, but they're still out there with them, and good things can happen and bad things can happen.

I try and use myself as an example. **I will go into scenarios and I will work on something, or I'll go and get my code reviewed, and I'll show them what happens to me.** I think that it helps for me to disarm myself and say, "Here's what it looks like to have negative feedback on something I wrote." Or, "And this is what they mean by it, and this is how you would interpret it."

Often feedback is very terse. Or it's something that is so common within the context of how Mozilla operates, or how you would review things, but outside of that context you'd ask "Why is this person saying this isn't good enough?" Or, "What does that mean about me as a person?" Or, "How do I get this person to respond at all? How do I subtly nudge this person?" Or "How do I talk to somebody else to try and push that along?"

There isn't a right answer to this. Everybody is trying to make the best of it. I show my students that it's real, that it exists, that they can navigate it and participate within that system.

Every year something completely different

Every time I do a course it's completely different. I never know what it will look like from one year to the next. **I can't reuse materials.** It's very challenging. I've tried to get other teachers to use this approach, but it's chaotic, as you would expect, and a lot of people don't enjoy that chaos. Students don't mind it, though. They don't have that same fear of things being different, and big, and hard.

There isn't a textbook. There isn't a set of notes. I've tried to produce some, but the communities, the products, the priorities are constantly shifting. You aren't relevant unless you're right in there working on whatever it is they're working on.

Most teachers don't want to leave the safety of the classroom, or the safety of the curriculum. **But, if you're willing to do it, the possibility for students to learn the most important skills are multiplied tremendously.**

Success, awards and national recognition

Sometimes it has felt like success when we've done something that will ship to all the users of Firefox. **Success will feel like scale sometimes, and it will be big.** We've had that experience quite a few times. Work that we've done has led to web standards emerging or changing. When I see Microsoft or Apple implementing something that I helped design there's a sense that we pushed the industry — we did something.

Success has looked and felt different over the years. Recently, **I won a Governor General's Award in Canada for the research work that we did. I received national recognition from NSERC and the government.** NSERC is the major funder of research for science and engineering in Canada — the federal government gives out grants to universities and colleges to work on science and technology through them. I've been able to get many government grants to work on these projects.

Getting involved with Mozilla has completely changed the course of my work. It's been tremendously positive.

Navigating a shifting Mozilla-land

There is a tension within Mozilla in general, and with the foundation in particular, around doing things at scale versus doing things at the level of the individual. How should you target and measure your work? Should you be affecting the lives of a million children on the web? Should you be running an after school program for six people?

The problem I've had is that the line moves all the time, even while you're deep within building a project. Suddenly, it needs to be an educational thing. No, it's not an educational thing, it needs to be for professionals. No, it's not for professionals, it needs to showcase something about the web. I don't know if it's an identity crisis or that's part of the identity — that it's a chameleon. I'm unsure.

That has been something that I've had to deal with a lot, and so it's meant changing priorities and pivoting what we're working on. Canceling things that are successful in order to start other things, but then canceling those too and starting other things. It seems that there's a desire to start again. "Let's begin anew, and if we do it again, we'll get it right this time. We'll really nail it."

Something that Mozilla is also really well known for, which is long-term stability on building something like Firefox — the same code that's been going on for the longest time and it just gets better, and better, and better. That can be missing from the way that some of the stuff will happen around the foundation. We have to arrive with a new vision. **That desire for refreshing makes it hard to do quality work over a long period of time. It's hard to educate people and to bring people in.**

I find that hard, because for me, the cycles of how I work are typically a year or two years, and it can often be hard for the foundation to hold their attention on something for a year or two.

Who else like me is out there?

Also, it would be helpful to understand who Mozilla's community *really* is — the people that are actually there working hard within your space — as opposed to this ideal user, or community member that doesn't really exist and you are trying to acquire. **It would be useful to understand who else is like me out there.** I'm definitely aware of some of it, but not aware of most of it.