
How To **MozFest**

ARRIVE WITH AN OPEN MIND



An Open Book
for the Internet
Health Movement

“At MozFest, people from across the globe—technologists from Nairobi, educators from Berlin—come together to build a healthier internet. We examine the most pressing issues online, like misinformation and the erosion of privacy. Then we roll up our sleeves to find solutions. In a way, MozFest is just the start: The ideas we bat around and the code we write always evolves into new campaigns and new open-source products.”

—Mark Surman

My first MozFest was in 2013. I was working with an external agency tasked with producing the festival. My role was to build a frame to support the program and sessions within. I worked with a super involved and dedicated team of Staff, Vendors, and local Volunteers, all of whom had worked on the festival before and helped me find my feet quickly. It was clear that each had a special bond with the festival and would go above and beyond to help deliver the event, which was something you don't often see. Money was not the sole transactionary piece, but something more: care, friendship, and trust.

Over the weekend, I was not fully aware of what was taking place in the Spaces, or the Sessions. Not viewing myself as a “techie”, I supported Michelle Thorne, the Director of the festival at the time, to the best of my ability, but didn't get too involved in programming. However, over that weekend, I was constantly invited to join conversations, Sessions, and sit with groups deep in talk about a variety of topics completely new to me. In hallway conversations, people wanted to know what my ideas were on themes and concepts. I was invited into round table talks, and welcomed to join in wherever I went. It was this continuous welcoming by the community that really inspired me and made me feel part of something bigger, even when I didn't know what that was just yet.

Yes, this festival has a serious job to do, providing a platform for the internet health movement to connect, build, collaborate, and seek new ways to keep the web open, free, and a resource for all. But it's this sense of comradeship – the sense of being welcomed and invited in to the heart of MozFest – that I aim to build into each

festival. Having learnt so much from Michelle Thorne, Gunner, Mark Surman, and each and every Wrangler, I aim each year to build something to live up to. Not only to what they aspired to in 2010, but what each Wrangler, Facilitator, Participant, Staff, and Volunteer has invested over the years.

We hope in this book you will understand more about the festival, that it's built by many, cherished by all, and finds success because of the hard work of those who return year-over-year to support the event, the work, and each other. As we close the first decade of the festival, we wanted to take a moment to stop and reflect upon what we have achieved, both as a festival and a community. As part of this reflection, it is important to share our story, how we design MozFest, and the evolution of the festival. As we enter a new decade, we seek to take these learnings forward to help us grow, mature, and remain relevant for the next ten years as a festival and as part of the internet health movement.

This book is laid out to help you see the event from the perspective of those who participate in its design, build, and execution.

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Our story begins with the festival founding organisers, calling us to action to roll up our sleeves and do something about the state of the internet. Come on, let's go. → CHAPTER 02

Then you'll soar over the past ten years, getting a bird's eye view of how the festival is an experiment and an evolution of the one that came before. → CHAPTER 03

Key moments of activism, community, and collaborations follow. You'll discover how the web has changed, how our community used the festival platform to advance, shape, and rally around their key projects and disciplines to bring internet health awareness and work to all corners of the globe. → CHAPTER 04

For those interested in learning about building a participatory event, you'll take the MozFest backstage tour. The shared ownership and collaborative design

practices of MozFest, of planning and leading the event with many in the community, is important for us to share. We didn't come up with this concept on our own, but we certainly made it our own. Learn how we build an event in a participatory fashion. → CHAPTER 05

For all of you asking insightful questions about the current state of the internet health movement and where it's going, you'll be a fly on the wall, overhearing conversations regarding the most pressing issues of our time between some of the most brilliant and influential minds in the movement. → CHAPTER 06

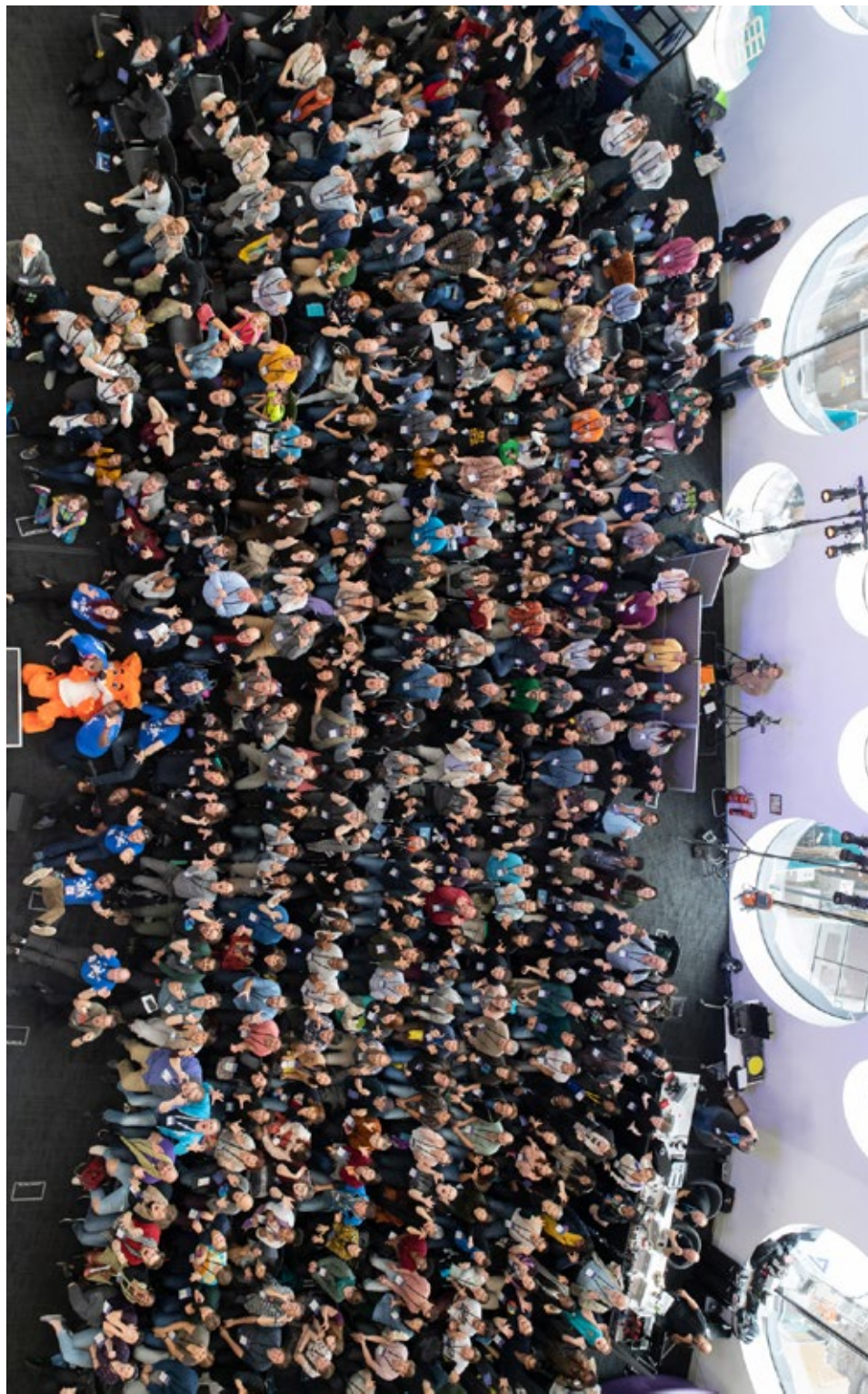
The book closes with five essays written by various community members reflecting on the question, "where do we go from here?". These five essays represent our diverse community through ideas, inspiring thoughts, and stories from across the internet health movement. → CHAPTER 08

It's clear that the festival is nothing without our community, so we asked them to help us write this book by sharing their stories and reflections. With over 180 contributions, you will notice some slight colloquial spelling along the way, as we wanted each piece to stay true to the original writer's tone.

While this book may now be in its final print edition, the open ring binder design is intentional and more than just aesthetics. We hope that you will continue adding to its pages, year-after-year, as we continue to write the future of internet health together.

Thank you,
Sarah Allen

Executive Director, Mozilla Festival



From Open Source to
a Healthy Internet

**LET'S
ROLL
UP
OUR
SLEEVES**

If you've been reading the news over the past few years, you might have a feeling something like 'Oh no! the internet is deeply broken.' Many people do. It's a very reasonable thing to feel.

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If, on the other hand, you've been reading the news *and* attending MozFest, you might be feeling something slightly different. Something more like: 'Oh yeah, the internet is broken. Let's roll up our sleeves and figure out ways to make it better. Come on, let's go.'

The 'come on, let's go' spirit has been a core part of MozFest since the beginning. Come on, let's use open source to improve science and education and the news. Come on, let's create a web literate planet so we can keep the maker spirit of the internet alive. Come on, let's make the internet as safe and healthy as we can for the 4 billion people around the world who now live their lives online. Come on, let's go.

Why is this important? Because MozFest was always designed to be a movement building tool – a way for people who want to build a healthier digital world to

find each other, work together, and create something chaotically and roughly akin to a common agenda. The 'come on, let's go' spirit provides a common thread. It makes this possible.

Another common thread is the 'we-build-this-event-together' model that has underpinned every single MozFest. In 2018, MozFest 2500 people showed up. Over 660 of these people were session Facilitators, Space Wranglers, Speakers, Volunteers, or had some other role in running the event. MozFest is not a spectator sport – it's something that the people who show up run together.

While these two core design principles behind MozFest – action and participation – have been a constant over the past 10 years, the world and the movement we're collectively building have both changed a great deal.



LEON,
SGO!

Over the last few years, the call to action has become broader and more urgent: come on, let's make the internet safer and healthier. Now!

For the first few MozFests, the call to action really was 'let's use open source to improve education and science and the news'. At the time, the success of projects like Firefox and Wikipedia still felt fresh and exciting. Smartphones were a newish thing. Most of us were optimistic about the internet. The people who showed up at MozFest simply wanted to expand the edges of the open source movement to include more things – they wanted to make the world more open and free.

Over the last few years, the call to action has become broader and more urgent: come on, let's make the internet safer and healthier. Now! In the post Cambridge Analytica world, it's clear to everyone that something is broken about the internet. At recent MozFests, people have been asking just what that something is, digging deep into the problems. The technology? The business model? The lack of diversity? And, in the original spirit, they also show up to build things. Alternative social networks. Software to fight censorship. AI voice agents that are more diverse. MozFest has evolved into a watering hole for people who want to understand – and tackle – the somethings.

When you think about these people – the people who come to MozFest today – the thing they have in common is a thirst to make the internet a better place to live, love, debate, work, and play. They may or may not identify as part of a movement focused on 'digital rights' or 'internet health'. And, they may come from other movements with long and deep histories of standing up for the rights of people and the planet. However they identify, when they show up at MozFest and as they stay connected through the year, they are a group of people rolling up their sleeves and working on something roughly akin to a common agenda. Which is really all a social movement is.

As we look into the next 10 years of the internet, these people give us hope. They are creating an agenda for the future of the internet that is both exciting and possible. It's an honour and a joy to work alongside them.

*Mark Surman,
with Allen Gunn and Michelle Thorne*

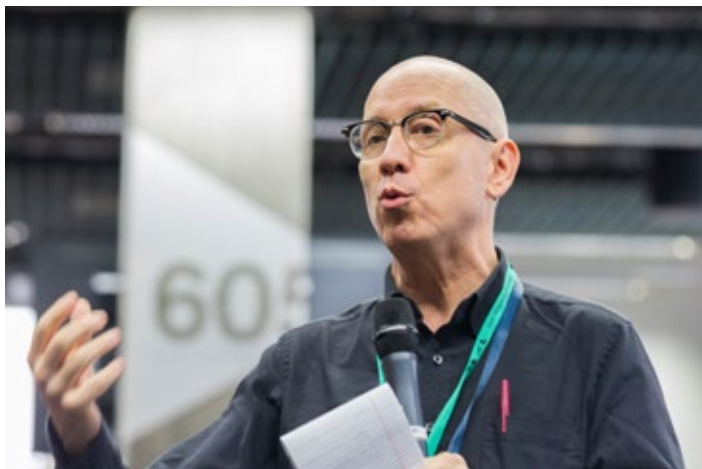
Founding MozFest Organizers



MICHELLE THORNE



MARK SURMAN



ALLEN GUNN

**... AND
FIGURE
OUT WAYS
TO MAKE IT
BETTER**

Written by
Sarah Allen, Erika Drushka,
and Michelle Thorne,
Festival Organisers

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Finding a Rhythm

The first MozFest wasn't technically a MozFest. Instead, it was the Drumbeat Festival, a convening of leaders making radical disruptions in learning and in web technology. Held at the Museu d'Art Contemporani de Barcelona, sessions took place in the museum, in tents at a nearby square, and in a Hack Bus that arrived spontaneously and parked (illegally) on the street nearby. There were 200 attendees, bad acoustics, and the shared sense that this was something special.

Drumbeat landed on just the right side of weird: one tent featured the internet fortune teller; the Hack Bus was unceremoniously towed by the city; and an unsanctioned popcorn machine accidentally perfumed the entire museum. Throughout the first day, new people continued to arrive, having heard through the grapevine that this strange scene was not to be missed.

With a design philosophy that was half deliberate, half laissez-faire, Drumbeat had a can-do atmosphere, with no one exactly sure what was going on. Activities were loosely organised in tents where a person or team coordinated activities around themes like Open Education or Open Hardware. The idea was that participants could spend the whole weekend in one tent, join sessions in different tents, or just enjoy the ambient action around the festival.

Thanks to incredible local support who helped find the right venues, invited amazing local groups, and made the first festival authentically multilingual,

“I wasn't really sure why I was there, but I just showed up and met everyone in the lobby. There were big funders and people I'd never met. And there was no script; all of us were inventing a track in the hotel lobby, straight off long-haul flights. It was a community coalition, full of social awkwardness, chaos, and people standing on chairs directing you to the next sessions. Some things were wonderful fails.”

Chris Lawrence
Co-Founder, Loup Design & Innovation

Drumbeat served as a springboard for a diverse range of emerging leaders in open education, open journalism, and open internet of things, and foreshadowed the issues of privacy, surveillance, and data that dominate news headlines today. It nurtured embryonic versions of projects like Open Badges, approaches to interactive storytelling later developed by

the Popcorn.js community, and the DIY spirit borne of maker spaces and fablabs.

The Drumbeat Festival ultimately set in motion ten years of collaborations, created countless friendships, and provided the spiritual underpinning for one of the most important events in the open internet space.



London Calling

A year after the raw but promising Drumbeat Festival, Mozilla moved its annual gathering to London, not realising it was putting down roots that would anchor it in this city for the next nine years. Along with the change in cities came a change in name, and the Mozilla Festival (instantly shortened to MozFest) was solidified as a gathering place for Mozilla's global network.

get coffee trucks set up on each floor, and I worked with the formidable Diana Ilinca to manage our very large pool of volunteers

It tickles me when I've been back, either to run a session or catch up with friends, to see how much it's grown and how large the team is now. I can still hear Gunner's voice booming on the end of a Skype call even now. Long live MozFest."

Alexandra Deschamps-Sonsino

Author of 'Smarter Homes: how technology will change your home life'

"When Michelle Thorne approached me in the spring of 2011, I'd just shut down my first business which had been a terrible shock. The idea of producing a festival set for the first time in London felt like a piece of cake in comparison, and I trusted Michelle as a leader.

The culture of communication at Mozilla was very different than anything I'd experienced, and after many a late night Etherpad session with people on the team in the U.S. and Canada, a broad plan was hatched and anything vendor-related was mine to hold onto. My experience in conferences and hackdays really informed my decision-making, so I focused a lot on the catering and coffee experience of the 2011 and 2012 editions. I worked closely with Claire Selby, who would become a lifelong friend, to find the best caterer and

Our new host was Ravensbourne University, a specialised design and media campus with a desire to innovate and change the world through creativity. Its open floor plan and collaborative atmosphere made it the perfect place to call home. There was a great sense of co-designing and co-ownership with the Ravensbourne team, and the opportunity to collaborate with a constant evolving student network. Here was home-grown talent that could support our event through camera teams, AV set up, event management, and new ideas.



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“The first couple of years, we had a tiny delivery team working to assist Mozilla in the production of the event in the venue managing several hundred people. Ravensbourne’s IT capabilities weren’t sufficient to cope with every super-connected festival attendee on their laptop, iPad and mobile phone – the infrastructure just wasn’t there. Serving food to large numbers over three days was also tough with no onsite cooking facilities.

As the festival grew and adapted, so did Ravensbourne. A few years into the relationship, the two worked together seamlessly and the partnership hit its stride. We managed to embed Mozilla projects into the curriculum for both Graphic Design and Digital Advertising, with the Product and Interaction students working on accessibility in the Firefox browser. Truly peak collaboration!

I remember that the first advocates were the students. I mean, who wouldn’t want to wear a fox suit and appear on stage? Most of them saw the festival as an opportunity to strengthen their portfolio, and applied

to join the Ravensbourne or Mozilla production teams. They were working on everything from making sure people got fed, to running, production, filming, and IT set-up and troubleshooting. Students taking the Web Media course at Ravensbourne acted as live journalists during the festival. And I love the fact that one of those original volunteers who wore the fox suit is now a full time Mozilla employee.

Like any partnership, Mozilla Festival and Ravensbourne hit bumps in the road over the years. But it was an amazing ride and both came out the other side with experiences and lessons learned that have strengthened how communities can be served best – especially where they intersect.”

Claire Selby

Former Head of Commercial Relationships, Ravensbourne

Year two of the festival gathered revolutionaries on the front lines: journalists, documentarians, indie game designers, amateur music video makers – people using web media to express themselves and show the world as they saw it.



MozFest was built as a platform for the community, but programmatically it reflected what was happening inside Mozilla. This year we focused the festival on media, which reflected our nascent open journalism program and our growing partnerships with institutions like The Guardian and the BBC. Mozilla was hosting journalism hack jams across the UK and East London's Shoreditch – the Silicon Roundabout – was becoming an epicenter of the web and its possibilities. Technology was bringing people together in a way that felt creative and kinetic.

“My very first MozFest (then Drumbeat Festival) was in Barcelona in 2010. I’d only been a Mozilla staff member for two months. The experience opened and blew my mind.

When London was touted as a possible followup venue for 2011, I didn’t hesitate to help with the planning. When Michelle Thorne arrived from Berlin (with an umbrella and a bag of Haribos in tow), we hit the streets (pubs, actually) and actively engaged with active local tech communities. These included representatives from Design Jam to

Barcamp London to Girl Geek Dinners to London Web Standards and others. Freshly armed with our findings and knowledge around what exactly would entice the local community to engage and attend a-hard-to-explain event, we went venue shopping (in the rain). When we later replayed our findings, it was obvious that Ravensbourne stood head and shoulders above others as our venue of choice. It oozed fun with its open and creative spaces. It had little quirks just right for a bunch of misfits trying to reshape the web. And an external architectural design that screamed, ‘selfie’.

Location-wise, London was certainly making a strong case to be a worthy successor to Barcelona to nurture and grow the Mozilla Festival. And we were raring to get our hands dirty to plan, wrangle, and curate the upcoming event.

‘Where would we go to next?’ was always on our mind after selecting London for the second festival. But little did we know, nor could have predicted, that we’d end up staying in that very venue for nearly a decade. It’s a legacy that’s certainly created everlasting memories for everyone involved.”

Dees Chinniah, @cyberdees

A Generation of Webmakers

MozFest's third year marked the rise of the maker spirit. The theme continued to evolve with the festival, this year to 'Making, Freedom, and the Web'. We invested more in nurturing the grassroots innovators doing incredible work creating, organising, and educating in their local communities. Mozilla was working to help millions of people move from using the web to making the web. Participants clamoured to be active: they wanted to get their hands dirty designing, making, and coding. Our attendees were an increasingly eclectic bunch and it felt vital to provide an environment where they could share opinions and expertise, while creating inroads for others to join them.

The desire for more active participation forced us to rethink our definition of a successful session. Experts had valuable knowledge to share, but the traditional session format of using Powerpoint presentations and speaking at, not with, audiences needed to be banished from the festival. We used the call for proposals to spur this change,

challenging session hosts to consider how participants could interact, what they could learn and make, and how the work could continue post-festival.

The maker spirit attracted new audiences, too. Youth had an explicit invitation to attend the festival in the Hive Pop-Up. Hive, a US-based model that brings together youth programs to collaborate and co-organise, was in its second year at the festival.

“The intention was to transform the learning landscape by providing creative ways to share the unique Hive experience with more youth in more cities. We had 12 organizations from NYC, Chicago, San Francisco, and London facilitating hands-on activities like remixing board games, producing radio podcasts (before podcasts were cool!), designing virtual hang-out spaces and becoming digital storytellers around themes of freedom and remembrance. A few local school groups

showed up. They arrived as students and left as active media makers! They could make their way around the room to sample each of the activities or they could camp out as long as they wanted with the activities that sparked their interest the most. It was impossible not to smile watching the literal “a-ha” moments on their faces.”

Lainie DeCoursey
Mozilla

Relationships formed at the Hive Pop-Up were the genesis of what would later become the Youth Zone. Initially, we envisioned containing the youth activities on the ground floor of Ravensbourne, but the feedback was clear: kids wanted full access to the festival. Regrettably, we hadn't foreseen this desire, but through the guidance of dedicated youth advocates, we began working with our Facilitators to ensure all sessions and activities could welcome young people.

Our Volunteer program was expanding and self-organising with people from all sectors uniting to support the frame of the event. Volunteers were fast becoming the heart of the festival, with individuals returning year after year and dedicating their time to ensure the festival ran smoothly.

“I gave a guest lecture on How To Start A Business for media students at Ravensbourne College, which just happened to take place the same week as the first London MozFest. There wasn't enough time to get my company properly involved, so I signed up to volunteer.

Mind. Blown. The experience was rich and captivating, such that I completely

ignored the assigned shifts and worked through the entire weekend.

Each year, the festival has grown and evolved slightly, from its roots as a hackathon-meets-science-fair to the slick operation of today. What hasn't changed is the reason all Volunteers come back: the people. I'm confident you won't find many other events able to boast such long-term commitment from a Volunteer team.

MozFest Volunteers are like a family. The family you choose to be with. We share this whirlwind experience each year, taking on any challenge thrown at us, and making sure the festival runs without a hitch. Participants “come with an idea and leave with a community”; the Organisers, Facilitators, and Volunteers help to make sure that journey happens.

The work we do is intense. It requires close collaboration and great teamwork. I have worked with incredible people. Simon Howard was someone I will never forget. For two years running, Spike paired us to tackle the AV and equipment support issues on the venue's upper floors. Simon never slowed down and never stopped smiling. He passed away five years ago. Simon is missed.”

Dan Monsieurle

Less Yack, More Hack

By 2013, MozFest had built a reputation as a gathering of passionate thinkers and inventors from around the world who met to learn from each other and help forge the future of the web. The maker vibe had taken off and the community was fully immersed and leading the charge. The festival was increasingly chaotic, and this year we doubled down by declaring “less yack, more hack,” encouraging both experts and novices from wildly divergent fields to bring their ideas to the table and spend the weekend building prototypes.

Mozilla’s commitment to fostering a web-literate world was a driving force in the work, whether that meant teaching basic coding skills, spreading an understanding of privacy and security, or integrating the open web into non-traditional fields such as journalism and scientific research. Building off the previous year’s success with increased participation, more interactive sessions began popping up, addressing topics like robotics and circuitry, gaming, and online data.

“The magic of MozFest is all the people working together – the participants, Wranglers, Facilitators, and Volunteers – to create and make an experience together, bigger than the sum of the parts. It is truly a demonstration of collaboration where each person can be a leader, a maker, and a learner at the same time.

When I think back on my years of MozFest, I always imagine running up and down the stairs with more tape and more markers all while watching each floor come to life. As wrangler of the Wranglers, I have a special place in my heart for the Space Wranglers – the dedicated souls creating interactive and inviting pathways for participation.

MozFest is not just what happens during the weekend in London. It’s also all the relationship-building, planning, and collaborations that happen throughout the year as we co-create the event together. I’m not sure how it is possible, but every year at MozFest is always the best year of MozFest.”

Misty Avila

The weekend was wild, with sessions starting and finishing whenever they wanted. Thankfully, an astute Volunteer realised we needed some way to keep track of it all, and so created the first iteration of our digital schedule. It required constant updating to account for changes in times, floors, emergent sessions and extensions to existing sessions, but it was a foundational building block in the festival's growth.

The constant development of new ideas into new sessions into new collaborations created an intoxicating, exhausting, and enormously productive environment.

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“Laura Hilliger and I had agreed to curate an entire floor of crazy at the event called Build and Teach the Web, which became the craziest (and busiest!) track of the festival.

The focus? Bringing together digital makers and educators of different kinds to build new tools, curricula, and ideas for the creation and sharing of digital knowledge. To prepare, we put together a chaotic set of activities including a massive green screen, scrum tables, and scavenger hunts. We covered all surfaces with Post-It notes and built a massive Scrum Board (project tracking structure) of tasks that could be done together, centered on seven themes from Cultural Archives to Glitch Remix to Diversity. These were all suggested through a set of community planning sessions with the 60+ Facilitators who came together to build the track with us. Our aim? To move as many Scrum tasks as possible from “To Make” to “Made”.

And to our immense relief, MozFesters dug in and took to the challenge with

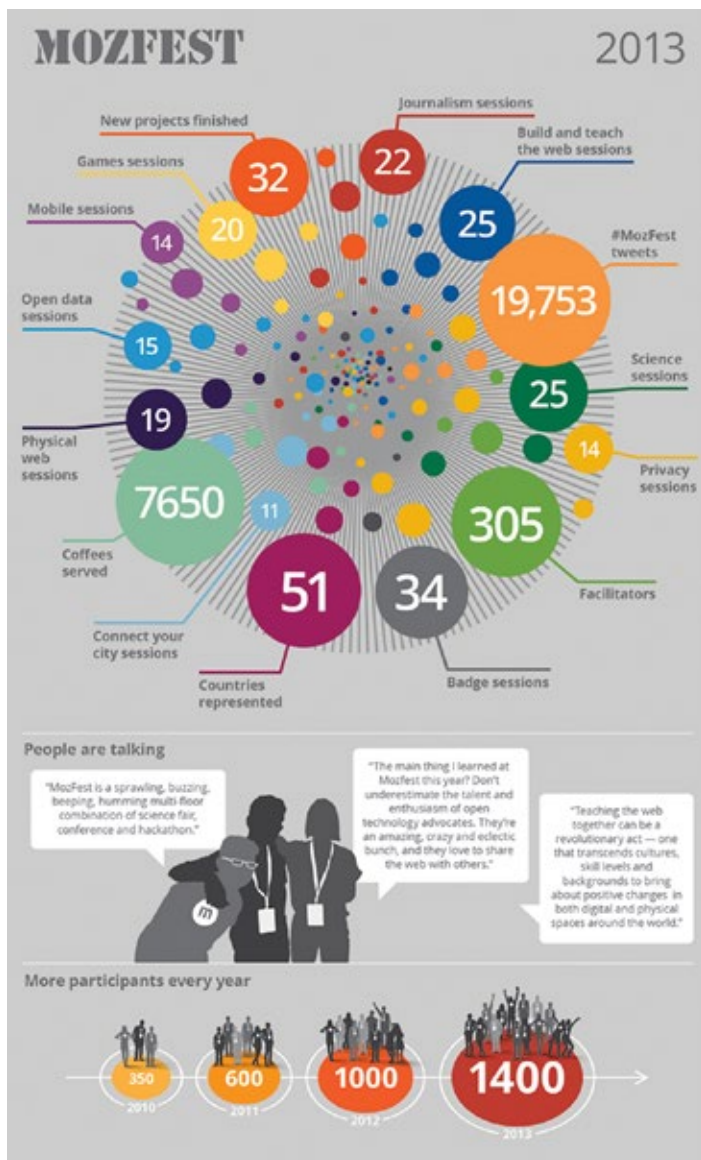
enthusiasm, shipping more than ¾ of the Scrums together and creating a remarkably welcoming, creative space where teaching methods could be shared openly with all.”

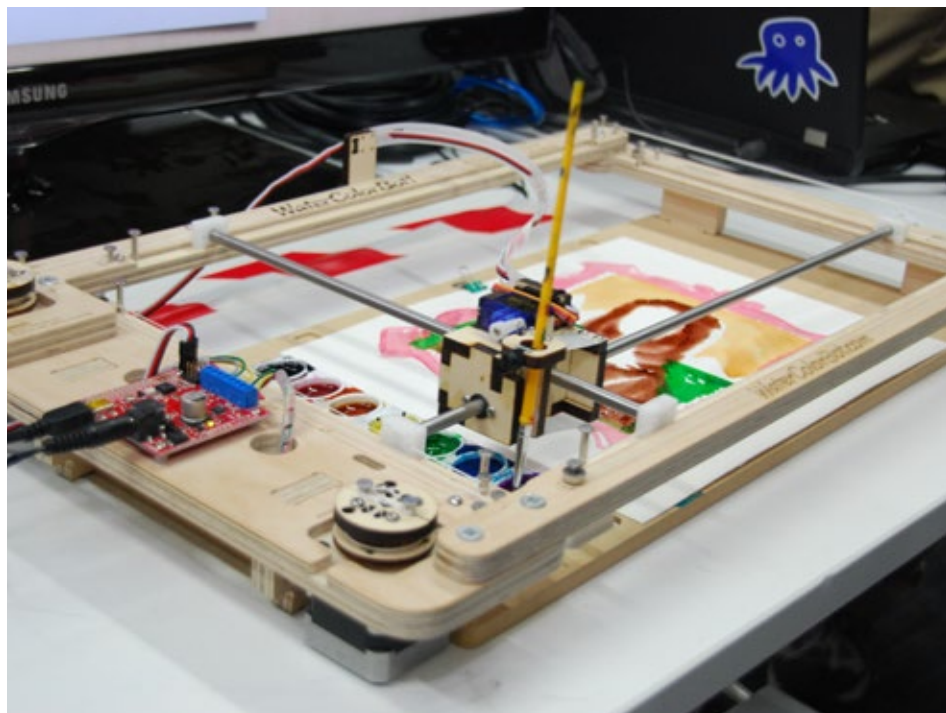
Kat Braybooke
Visiting Scholar, Humboldt-Universität zu
Berlin IRI-THEsyS

Poster culture began to take hold, with individual session hosts working to recruit participants. The walls, steps, elevators, and bathroom stalls of Ravensbourne sprouted colourful, hand-drawn signs, and paper banners hung from the balcony railings.

As the leading organisation of the festival, Mozilla was front and centre with our products and programs. The main stage became a place for announcements and demos, from the global unveiling of the privacy add-on Lightbeam, to the Firefox phone, to the introduction of a new cohort of journalism fellows. The opening keynote stretched for more than an hour, with a parade of faces crossing the stage.

Another quintessential Mozilla activity gained traction in 2013: karaoke! Sessions were over by 5:30pm, which left hours to cultivate newly-formed friendships in different settings around the venue and elsewhere in London. Never has there been an audience more enthusiastic for the microphone. While some drank beer and belted out American pop songs, sentimental British classics, and Bollywood hits, others sipped tea in quiet corners, engrossed in conversation or bonded over board games.





Teach the Web

As MozFest turned four, equitable access to the web was becoming an issue of global concern.

Billions of new internet users came online thanks to affordable mobile technologies, spurring big questions like, “How do we shape and grow the web we want?” How do we build for mobile adoption? How do we maintain equality in ownership, and teach web literacy to empower new generations?”

profit to build a civic movement with grassroots mobilisation (and an app called SolveNinja!) in India.”

Gauthamraj Elango
Reap Benefit

We recognised a need and an opportunity to develop best practices for community leadership, and had a vision for how MozFest could contribute: Facilitator training.

We saw the answer in the grassroots organisers who were teaching and innovating with the web: They ran Maker Parties, they coached and connected others to explore and invent, and they brought a pragmatic approach to solving the local problems facing their communities.

In the first iteration of what would grow into a key pillar of the festival, Michelle Thorne and Gunner hosted a workshop before the festival began that tried to cultivate a sense of awareness and mutual respect. Session Facilitators could see what they were bringing as individuals and as a collective. We didn't want Facilitators to present from the top of the room, but instead to ask their participants to help advance the work of designing and advocating for an equitable, accessible web.

“Being from a tier-3 district of India, the web has empowered me in many ways including skill development. I always wanted to help others who have the same experience. I was actively involved in Maker Party and Mozilla Clubs. But I also realized not everyone has access to computers. My experience with Webmaker for mobile and with MozFest really shaped who I am today, working with a not-for-

“Ask not what you can do for your participants, but ask what your participants can do for you.”

Dirk Slater
MozFest Facilitator Support Guru

The trainings were also a place for us to communicate how the festival had evolved since the previous year, empowering Facilitators to act as ambassadors and to be cognizant of anything that limited attendees' ability to fully enjoy themselves. Design-wise, we acknowledged that we'd hit peak chaos in 2013 and had put in place more structure for how the festival would unfold. We shared community participation guidelines, announced set times for sessions to stop and start, and began to consider how we could accommodate different styles of interactions to welcome our increasingly diverse attendees.

Artists were becoming active members of our community, and for the first time an entire space was dedicated to building and showcasing thought-provoking digital art forms and a living gallery. Mobile app-makers flocked to Ravensbourne, too, and put Mozilla's Appmaker through its paces with sessions around mobile payments, citizen science, and gaming. Digital literacy was the thread that connected all the Spaces of the festival.

“We were doing really early user testing of the first Mozilla Webmaker app. At one point, a young kid (maybe age 10) from East London was having a blast and said, ‘I published ten apps today!’ It reminded me so strongly of one of my formative moments learning programming in the 1980s with LOGO programs and robotic turtles with paper outputs. That sense of ‘I made this!’ gave me momentum that lasted decades, and I felt so proud to have a hand in that kid having that reaction.”

David Ascher
Apple

Members of Mozilla Reps – the organisation's global Volunteer program – played a special role at the festival in 2014. Arriving from countries around the world, they ran sessions, supported activities throughout the building, and saved the day when 1000 Firefox phones were distributed but needed to be upgraded to ensure participants of MozFest had the latest version.

“The Reps program has a long standing history with the Mozilla Festival, starting in 2012 when Reps were invited to facilitate sessions and share their expertise as local webmakers and event organizers.

In 2014, Mozilla was focusing heavily on educating people about, and spreading, Firefox OS, the open source operating system built entirely on the web. Reps played an important role as tech and community building experts at MozFest and beyond. From supporting and co-facilitating various sessions at the festival, to flashing 1000 Firefox OS devices on the fly that were distributed to the participants.

In 2015, the focus of the Reps changed. Since webmaking and Firefox OS were not a primary focus for Mozilla anymore, Reps focused their energy on teaching people how to organise local communities and how to start local movements. MozFest was an amazing opportunity to advance this work and have it spread to all corners of the globe.

Staying strong to their commitment, Reps have participated as everything from MozFest Volunteers to Space Wranglers over the years. It's been an honor to play such an important role in designing and shaping the festival, and we hope to continue the work for years to come.

Christos Bacharakis,
Konstantina Papadea
Mozilla



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Collaborative Curation

MozFest 2015 reflected a shift in the zeitgeist: The web we knew and loved was under attack. Security breaches, data trafficking, doxxing, and the rise of trolls were just a few of the threats indicating a need for more robust structures to keep individuals and communities safe. Digital citizenry and the protection of the web as a shared global resource had never felt so urgent.

to the festival, partners, and Mozilla staff, this collaborative visioning marked our commitment to put a good part of the festival's design in the hands of the network, and drew inspiration from unusual sources.

“When we talk about reading, writing and participating on the web, we often forget that not everyone can participate in the same way, and that not everyone is safe”

Melissa Huerta
Mozilla

Sensing what was at stake, we took the advice of long time festival friend, Jon Rogers, who challenged us to look beyond our usual circle of partners and allies. We were inspired by the slow convenings ethos, and invited a diverse group of global leaders to help us thoughtfully co-design the festival. In this first iteration of MozRetreat, we spent a week immersed in the community and culture of a small fishing village in Scotland. Incorporating experienced MozFest Facilitators, people brand new

“I was delighted to have been nominated to take part in MozRetreat as a Wrangler. Perhaps for me it’s the lovely surprise that Mozilla is always pushing the margins, bringing on board minoritized groups as a norm rather than an exception. It’s also the experience of being in a new city and country.

Gathered together with people from at least 16 countries, across different disciplines, this felt powerful and special.

The retreat program was curated to allow us to talk about our personal journeys defending the web. These conversations were very enriching and eye opening. I listened to a journalist’s

experience covering “horror” stories that involve technology. I listened to a culturalist and museum enthusiast who would like to trace back the history of machines. I listened to a financial analyst whose day-to-day work has heart-wrenching stories of how systems have made people’s lives miserable.

One of the greatest lessons of this curation process is learning to listen and immerse yourself in other people’s journeys.”

Winnie Makokha
Space Wrangler

This influx of different perspectives inspired new ways of storytelling and learning at the festival that blurred the boundaries between physical and digital media to create shared community spaces. This year, Ravensbourne featured a garage, a garden, a library and a kitchen – each with a unique request for participation through installations and workshops.

Digital rights were high on the agenda and we explored how we can all act as leaders in the tech, policy, and social spheres to create a better web for everyone.

As we evolved our process, we reached out to other festivals that we admired, whose designers and participants we saw as leaders. BrooklynJS and SRCCON inspired us to be more transparent in our curation process, and we shifted to the open source tool GitHub, which allowed everyone to see changes and contribute. This completely opened up our process of reviewing and sorting sessions – anyone could watch the process unfold and could connect with each other outside of the festival.

Answering our request, Allied Media Projects shared a set of recommendations that would have lasting positive effects on the festival. They encouraged us to tone down the chaos even further and bring more clarity, while creating ways for people to connect without the festival as their epicentre. This encouraged us to tidy our communications, invest in wayfinding, and improve our schedule of activities. The biggest legacy that they set in motion was how we viewed the invitation to our participants.

“The challenge of any intentional gathering that hopes to be inclusive of people who identify all sorts of ways is to build ‘green lights’ into the space. Green lights are the indicators that yes, you have been considered before entering.”

Allied Media Projects

Immersive Experiences

In 2016, our focus was on making MozFest more welcoming. The previous year had marked an evolution of the festival's overall frame. Now, we were ready to find more ways to connect participants outside of Sessions, give space to inspirational ideas, and create visual moments to tell stories and rally behind a cause. Human APIs, the Mozhelp info desk, and our incredible Volunteers were all focused on one thing: The care and the quality of experience of the participants in the building.

We took a multi-pronged approach. Wayfinding and a coherent design aesthetic helped everyone – from first-timers to festival veterans – to move around the building with more ease and less stress. Info desks staffed with cheerful Volunteers helped attendees with everything from finding their way to a session to locating a laptop adapter. And quiet rooms provided a refuge for those overwhelmed by the bustle of activity.

For the first time, we encouraged activity in languages other than English by localising the call for proposals into several languages, supporting multilingual

sessions and designing signage with our global audience in mind. Like every new aspect added to the festival, language inclusion was a work-in-progress and we learned so much from those brave, multi-lingual Facilitators.

“We can work hard to overcome barriers and access to the internet only to arrive at the place where people are set up for success, have the device in front of them connected to the internet, and then find themselves unable to engage with technology because they don't understand the language. As we develop and grow technologies, we run the risk of repeating colonial/imperial mistakes of the past. Again we are excluding the very people we are trying to reach. We have a beautiful opportunity presenting itself to us right now to create an internet where no one is left behind.”

Heather Bailey
Director Translate

Art at MozFest was becoming more ingrained across spaces and was turning up in surprising places. Artists had been part of our community since the beginning, and we wanted to weave them and their work more deeply into

the fibre of the festival. From MozEx, a bold art exhibition curated by the digital art and learning teams at the Tate, and the Victoria & Albert Museum, to youth groups championing code as a form of art in schools, the festival was elevated by the passion and drive of creative visionaries who pushed us beyond our well-worn methods.

Our main stage was undergoing a transformation, too. Saturday morning attendee numbers had dropped in recent years and we needed a way to invigorate the audience ahead of an active weekend. Opting for a radical change, we drastically shortened the opening plenary, took the focus off Mozilla programs and products, and gave the community a starring role. Recognising that we needed an environment where big names could discuss the most pressing issues facing the web in full-length talks and panel discussions, we carved out a new space on the ground floor of Ravensbourne, and Dialogues and Debates were born.

“Dialogues & Debates got its start in 2016: We wanted to give participants a chance to hear how luminaries continents and oceans away are making a difference in the internet health space. Past speakers have hailed from Kenya, France, India, Bahrain, the U.S., the UK, and beyond. They are influential activists, hackers, engineers, journalists, and lawyers.

We designed Dialogues & Debates in a way that complements the existing festival program, rather than disrupting it. On Saturday and Sunday, speakers deliver talks and panels on the ground floor of Ravensbourne. Anyone is welcome to listen in and ask questions. Like all parts

of MozFest, Dialogues & Debates is a community effort: Speakers are often suggested by past attendees.

Some of the most memorable Dialogues & Debates moments over the years include techno-sociologist Zeynep Tufekci discussing the unprecedented power of social media; journalist Julia Angwin examining biased algorithms; and world wide web inventor Tim Berners-Lee imagining the future of the internet.”

Kevin Zawacki
Mozilla

The festival was never just about what happened around tables, in Sessions, or in Ravensbourne, but also about the people and the conversations. Whether in the coffee queue or the Saturday night party, we tried to design ways for kindred spirits to find each other. By now, our party format felt staid: The pizza party, a crowd favourite, was a nightmare to manage and we fancied the idea of doing something radical. We collaborated with Anagram, an interactive storytelling company, to create “Only Lean on that which Resists”, an immersive spectacle held in an empty warehouse in London’s South Bank. From the brass band to the digital monks, it was a wild, one-time-only event that capped an exceptionally creative year.





Introducing MozFest House

By 2017, MozFest had grown so large, and become such a vital place for people passionate about the web to converge, that we were bursting at the seams. Three days inside Ravensbourne was simply not enough; we needed to expand. Previously, we'd experimented with fringe events that celebrated innovative gatherings taking place around the world with the same open spirit as MozFest, and locally-run iterations of the festival, like MozFestEA. But our core London audience was articulating their need for meetings with invited participants, and longer workshop timings. We responded with MozFest House, a secondary venue designed to accommodate longer, more focused meetings for a defined audience.

Our home for this experiment was the Royal Society of Arts, and it was everything we didn't know we needed: Three Georgian-style buildings connected by winding staircases, modern technology, and a long history of innovation and design. We set up a cafe in the most central space, creating a beating heart

for the building as events played out across the floors in a variety of formats: film screening, workshops, conferences, and talks, all focusing on internet health and showcasing the diversity of the Mozilla network.

"MozFest had run out of space, and it was this dilemma that brought me to Mozilla as an event manager to help extend the wonderful weekend into a week-long event. No one knew exactly what to expect from MozFest House, and to be honest, we weren't even sure we could convince our partners to co-host with us!

The week passed by quickly as we got into a daily routine of welcoming people, creating bespoke spaces, responding to hosts' needs, and making tweaks along the way. Our volunteers, our partners, and the participants all rose to the challenge of helping us bring to life this new format.

Thanks to the team onsite, it felt like a real family atmosphere - nothing was too much trouble for any of our team or the RSA, and we think this was reflected in the overall feel of the House.

Returning in 2018 was like coming home! We learnt from 2017, made yet

more changes, but could now speak from experience. We had more events, even more variety, and there was a real buzz from those returning, as well as those who visited for the first time.”

Lucie Click

Ravensbourne was evolving, too. Our Youth Zone, once relegated to the ground floor, was now distributed across the building with youth-led Sessions in every Space (not to mention an 11-year-old speaker on the Main Stage). Ravensbourne students were designing and building installations, running the main stage AV, and creating subversive characters to playfully disrupt the festival's narrative.

“Ravensbourne’s partnership with Mozilla not only gives students the chance to gain important real-world experience, adding an industry-leading organisation to their CV before they graduate. It also teaches them important lessons about collaboration and critical thinking. They are given the chance to work with industry figures on professional briefs, challenging them to interrogate their own work and explain their rationales.”

Professor Lawrence Zeegen
Executive Dean of Design, Ravensbourne

Building on our previous year’s work creating a more inclusive environment, and recognising the major issues threatening the health of the internet, there was a big need to raise awareness of what we can do together to make our online experience more inclusive, safe, and empowering.

At MozFest House, gatherings like MisInfoCon were raising the alarm that

the internet was moving in the wrong direction. Speakers on the Dialogue & Debates stage questioned how we could connect everyone – regardless of gender or geography – to the entirety of the internet. Across the board, conversations focused on how the web could be a civil, safe space.

The right questions were being asked, and we turned to the community to help us understand what they needed from us as an event. Many generous people helped us improve our accessibility through extra care for our neuro-diverse attendees, and live transcription of our Dialogues & Debates. We created new channels for participants to raise issues both onsite at the festival and while in London, including a local safety number and an email address to report issues and ask for assistance. We also ensured our community participation guidelines were more prominent: They were printed on the back of lanyards, read aloud on stage, were posted throughout the building, and were required reading as part of the ticketing process. More languages were being supported, too, and it was not uncommon to see posters in Spanish or to hear German and Hindi spoken in the hallways.

“We’re making a real effort to make the festival even more accessible to people with disabilities so as many people as possible can attend in comfort. Our brain or body may work in different ways, but our ideas are equally valid.”

Martha Sedgwick

Making It Personal

Over the years, MozFest has been a powerful platform to tackle broad challenge areas like media, education, and access. 2018 marked major data breaches, and the Cambridge Analytica scandal revealed that governments and for-profit companies were exploiting our data in ways we'd never consented to. It was against this backdrop that we began the annual co-design process with our network and partners, and we committed to making an impact the most powerful way we could: by making it personal.

common-sense tech policy. The solutions reflected a commitment to putting community first.

“MozFest not only shaped what tools and solutions we built but how we built them, with an open and participatory approach. The best uses of technology inspire us not because of what technology can do but because of what people can do.”

Sam Dyson
Learning Design Consultant

“Your Data and You” was the thread that connected interactive sessions, art, games, Dialogues & Debates, and experiences at MozFest 2018. Attendees were presented with an urgent call, shared in many formats, in many languages, from many corners of the web, to take control of our data, our online lives and our collective future.

Activism experienced a powerful resurgence at the festival as the community strategized its next moves in global campaigns for net neutrality, data privacy, online freedom, and advanced thinking on topics like ethical AI and

Looking out for each other never felt so important, and we asked ourselves how we could build trust and carve out safe spaces on a web that had become increasingly hostile to so many. We examined the different lives that are impacted by the state of the web, from content moderators who are responsible for filtering content, to LGBTQ communities that remain marginalized in many online spaces. By taking a deep look at how the internet and human life intersect, we searched for ways to enact positive change.



Over the years, the idea of storytelling through design and inspiration became more and more powerful. From the Global Village built of cardboard boxes, to Xenshana, a futuristic landscape populated by characters not of this world, storytelling was not just visible in Sessions but in how we dressed the Spaces and buildings. This outpouring of imagination from the Wranglers had unexpected and delightful results: people were cooking chocolate cakes in an IoT kitchen, discussing accessibility while hula hooping, and relaxing in a plant-filled garden of learning. It felt like the festival had become an art piece itself. In addition to being playful and fun, these installations and experiences created the safe spaces that many craved, which supported many different styles of learning and interacting.

“I’ve been to MozFest for six of the 10 years and if I’m lucky, I’ll make it out for year 10, too. No two years were in any way the same for me. In my first and my last, I was an outside participant. In between, I’ve been a chaperone, a Wrangler, a host, and a Mozillian. There were years that I did back-to-back sessions and years that I just wandered around aimlessly. Years that I was in the front row of the photo and years when I missed it altogether. I participated in science fairs, firesides, circles, workshops, closing demos, pitch competitions, speed dates, gallery walks, seminars, and games. I’ve gotten acquainted over lunch, gotten serious over dinner, got lost in a dance party, and got to last call at hotel bars. I’ve hosted overflowing sessions of 40 and also, when almost no one showed up, tossed out the slide deck to work one-on-one. No year was the same and each one channeled my passions in creative new directions.”

Robert Friedman

Untold

THE FIRST DECADE

Write this chapter at MozFest:
Add notes, photos, stickers and
write your own 2019 experience.

2019

Closing The London Chapter

1/4

2019 marked a year of change, of celebration, and new horizons. It was the 10th festival, the end of the first decade. As we planned for this festival, there was a lot of reflection on the evolution of the event since Barcelona and hard questions asking what will the next 10 years hold for us — how can we continue to grow and be the platform the internet health movement needs? We knew we had to stay true to our roots, and as always we knew we wouldn't come to find answers to these questions alone.

“It didn't matter where we all were from, we all faced the same thing. And by coming together at MozFest it was easier for us all to discuss what was going on in our different contexts and then collaboratively find solutions that worked.”

Hildah Nyakwaka
MozFest Facilitator

We began the planning of MozFest 2019 through careful reflection and introspection together with our community.

We reflected on events of the past, of MozRetreats, main stage moments, and the feedback we received along the way. We remembered those who had joined us along this journey, year-on-year, bringing new iterations of projects to each event — those who had truly customised MozFest to be their own festival. We consulted Wranglers, Volunteers, Facilitators, Staff, and Mentors who used the festival platform to meet their needs, and those who participated to help others achieve what they need to move forward in their goals. In this reflection, we started to think about what the future could hold for the Mozilla Festivals of the next ten years, and what the community will need in this ever changing digital landscape. Throughout this process, together as

a community, we highlighted familiar issues, new frontiers, and acknowledged new challenges to be faced, which all shaped the festival's theme for this year: Healthy AI.

Since it's beginning, MozFest has always taken a positive approach to fighting issues online, and we truly believe in the collective power of the movement to create change, to keep the web we know and love to remain free and open. One thing became clear after our months of reflection: this collective power is what anchors us in these heavy and constantly changing times that we all face online. This collective power is what made us the festival we are today, and so we trust it will direct us for the next ten. And that is a reason to celebrate.

Celebration

We went into 2019 excited to celebrate with those who helped the evolution and success of the last 10 years. We invited as many people from our community — Wranglers, alumni, old partners, former staff — and took a breath during the festival to remember the work, the projects, and the people of years gone by.

Our science fair showcased the last 10 years of projects, ideas and people, who shared how the work had evolved since their first MozFest in Barcelona. Allies, friends, and partners from over-the-years returned as valued participants, sharing their experiences and knowledge within sessions. We invited back special projects first built at MozFest or with Mozilla but now hosted, managed, and were thriving under new organisations. We had created a visualisation of the arc of the open web across

the demo tables, and the festival was flowing with energy!

We had traditional birthday moments, with a cake and candles during the Opening Circle and a massive party on Saturday night, that spilled over three

“I wanted something that would allow others, like me, to openly express themselves when they may not have been able to in the past - to feel empowered. Over the festival, I watched the collage grow into an expression of identity and difference just as I had hoped it would.”

Leena Haque
MozFest Neurodiversity Wrangler

floors bursting with entertainment: a silent disco, drag queen bingo, karaoke, and much more. As a birthday gift for the community, we shared the first edition of this book and people passed around their copies for signatures and added notes - not only from sessions, but poems, words of encouragement, and messages of friendship and love for the festival, and each other.

New frontiers faced: Healthy AI
Going into 2019, the internet health issues MozFest has always focused on were as relevant as ever, but we faced new emerging challenges too. Everywhere we looked we were facing dystopian futures — how our own data was used against us, lack of accountability and agency with AI, and how easy it is to access extremist content on video. Mozilla understood that defining and narrowing these issues would help us achieve a more long term and sustainable change within Artificial Intelligence — a future of Trustworthy AI. A future where all AI is designed with

personal agency in mind and privacy, transparency, and human well being are all considered. We want to see a future of accountability, where companies are held to account when their products make discriminatory decisions, abuse data, and make people unsafe.

MozFest sessions are the fuel that feed the movement, ensuring we can create change. We need positive energy when what we face is insurmountable. And the community at MozFest was up for the challenge. Healthy AI was too big, too new, and too unyielding to tackle alone. This new direction was the evolution of everything we had ever learnt, tested, and defined across the last decade.

The sheen of this year was bright, and the Healthy AI theme flowed through the Spaces. Our Art and Culture Space was as provocative as ever, raising the risks, fears, and challenges of how AI affects society, and our hopes for AI in the future. Across two galleries there were live demonstrations, workshops, and unique artworks critically reflecting on the collection and preservation of art and culture in collaboration with AI.

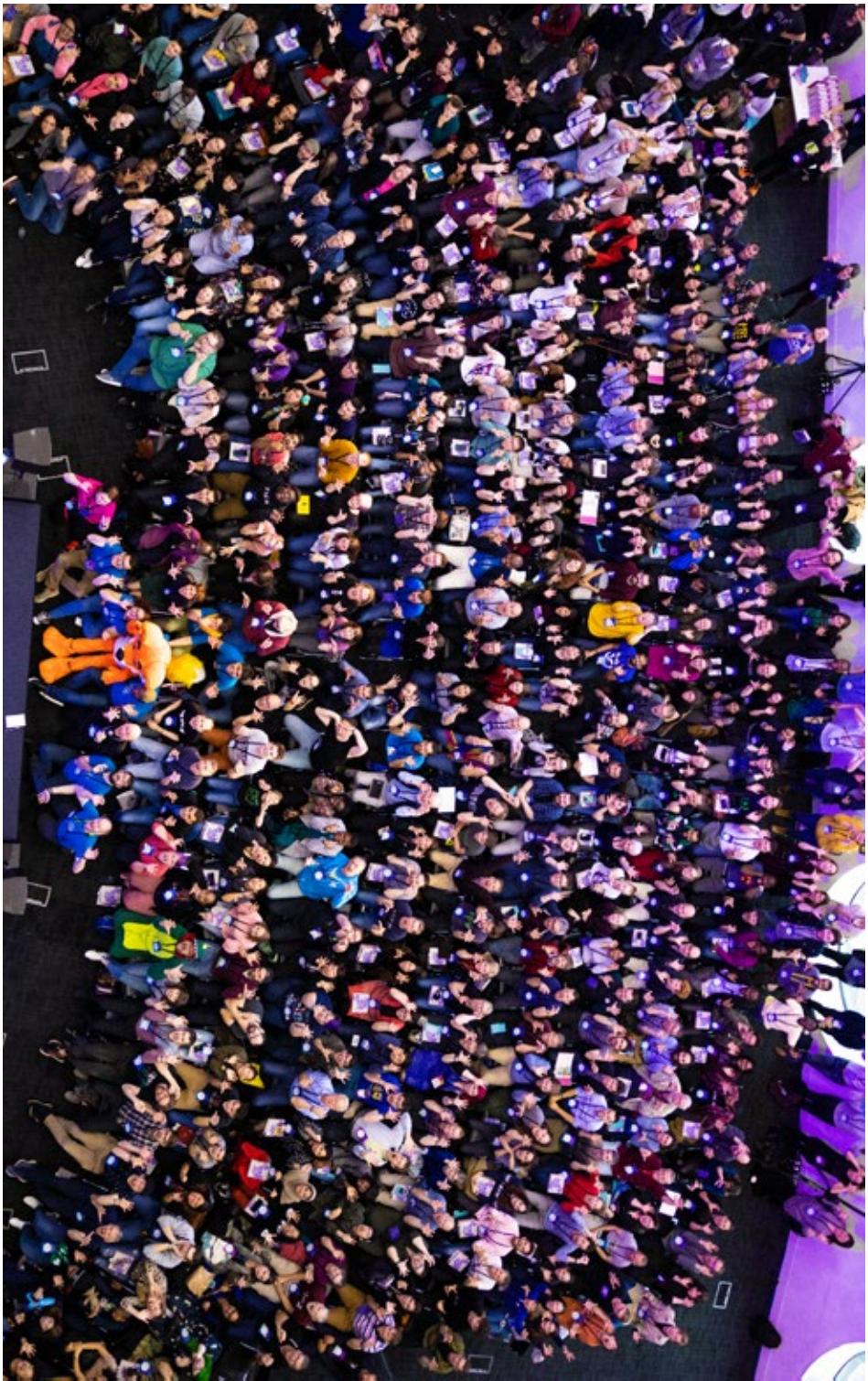
This year we also had the first Neuro-diversity Space, including a Babbling Brook sound room, stories told through a collage, and a session that challenged us to think outside the box and learn how to materialise mental health.

When one Facilitator didn't show for their Decentralisation session, in true MozFest spirit, the waiting crowd of about 30–40 people stepped up and collaborated to run the session themselves. In another session, inspired by

Día de los Muertos, participants collaboratively created an altar as part of a session “An Ofrenda to Tech Ghosts” by Kara Carrell commemorating dead and dying tech projects. In the Digital Inclusion Space, participants found quiet moments under paper tents, and the Queering Space provided connections to a constellation of people, to find your guiding star, and create the inclusive world we want. Plus the very popular opportunity to take selfies with a giant, inflatable unicorn was there for the passersby.

The largest contingent of MozFest House sessions sought feedback on work started earlier that week, and encouraged sharing next steps on topics from decolonising the internet to public interest tech eco-systems.

On the Sunday afternoon, it was bitter-sweet looking over the balconies of Ravensbourne University, enjoying the view of our biggest festival yet, knowing this was our last year in what had truly become our home. Yet with the sadness that comes with change, you could feel the excitement for what the future would hold. Safe in the knowledge that we don't go alone, and that friends we made over the last ten years are by our side, we look forward to what is yet to come.



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A Shaping Journalism And The Open Web

by Erika Owens, Director of Open News

“The least ‘techy’ tech conference I’ve ever attended which is a great thing. The broad range of topics, the sense of the intersection of technology and X, where X is everything in our lives.”

Journalism participant, MozFest 2015

Journalism remains one of the major ways we all interact with the open web, whether that be sharing article links on social media or developing sites using Django (which began at the Lawrence Journal-World newspaper). Over 10 MozFests, OpenNews has helped participants explore how journalism shapes and is shaped by the open web, build skills and conceive of new projects, and find collaborators to keep all of those efforts going long after the event closes.

*Learning together, celebrating
and challenging one another*

The peer-led, participatory nature of MozFest was developed at a time when the journalism industry was grappling with what it meant to no longer be the sole expert. Each year with MozFest, we’ve seen how organizing sessions around facilitation, and not lecture, allows everyone to learn from the wisdom in the room, instead of the expertise of just a few. This organizing approach inspired our own series of conferences, SRCCON, full of conversations and workshops focused on the practical challenges that news technology and data teams encounter every day. At SRCCON and MozFest alike, an

intentional approach to event design has led to spaces where participants feel able to be open with one another. We often say that a good session is one where you bring a question you've been struggling with because you can bet other people have too. And the last 10 years have shown that to be true. By offering supports (including a code of conduct), participants have a chance to ask each other hard questions, share big challenges, and push each other on what it means to do journalism at this moment in time.

This person-centered, interactive session design has been echoed in what we've increasingly heard are part of the answers to those difficult questions: it's not tech, it's people. While journalism at MozFest and SRCCON still involves plenty of geeking out about new libraries (or even, the open-source documentation tool named Library!), our work has increasingly moved to answer the questions: how do we support each other as people? How do we serve communities? How do we shift newsroom leadership to be more equitable, inclusive, and really, to operate in whole new ways?

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Space for networks to connect

Well, much like Sessions centered around asking questions in group conversations, it turns out the answers are also found via groups. A network of networks has connected and developed through MozFest and SRCCON. Each year at MozFest, there's been a session of organizers from local chapters of Hacks/Hackers from around the world. The network of local meetups for journalists and technologists has grown enormously over the last 10 years. Two of the largest chapters, London and Buenos Aires, are two of the most frequent participants in MozFest too: creating space for organizers to compare notes, learn from each other, and come up with new ideas. Hacks/Hackers Buenos Aires hosts a Media Party,

very much in the MozFest spirit, bringing journalists from around Latin America together for talks and hacking, while Hacks/Hackers London received a grant to expand its local work, including better support for working journalists who are also parents and caregivers.

For five years, we also celebrated the work and growing network of the Knight-Mozilla Fellowship, which brought skilled fellows to newsrooms around the world and helped inspire a whole set of fellowship offerings at Mozilla. Over the course of the program, fellows led Sessions, developed new projects, and have gone on to lead and grow networks of their own, including:

- Dan Schultz and the Bad Idea Factory team, “a collective of chaotic creatives using technology to make people thinking face emoji”
- Mark Boas’ work organizing decentralization tracks at MozFest
- Pietro Passarelli organizing the TextAV community
- Gabriela Rodriguez’ work advising on inclusion at the Internet Freedom Festival
- Harlo Holmes’ and Martin Shelton’s work educating journalists around the world about security

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The many networks the fellows have built, led, participated in, and spread the word on have strengthened the overall journalism-technology community’s resiliency and connection to the many tech worlds adjacent to journalism, too.

So, why still tech?

As the conversations at MozFest and SRCCON have formed into vibrant, self-sustaining communities...

As those conversations have meandered between tech and business and culture and leadership...

As all journalism becomes online journalism...

As the consistent answer to the question “what does the journalism tech community need now?” has been “diversity and inclusion...”

...how does tech still fit into that?

For us, for the community that gathers at MozFest, tech still fits because tech sits at the intersections. The unbelievable magic of MozFest is seeing those intersections brought to life: representations of what the web can be and mean being shown through a new prism. In newsrooms, technologists work between intersections too, whether it be between teams, desks, editorial/business/product, the perspective between and across the industry gives this community the insights to understand the challenges of the future and lead newsrooms through them.

As everything about MozFest shows, it's not tech 'or' people, tech 'or' journalism, tech 'or' art, it's 'and' 'and' 'and' 'and,' and then how all those 'ands' create an ability to envision a whole new reality. I don't know what journalism tech is going to look like in the next 10 years, but I know the leaders who have facilitated sessions, hosted science fair tables, and participated in discussions at MozFest will be the ones to craft answers we couldn't imagine when MozFest began.

WHAT MAKES MOZFEST DIFFERENT FROM OTHER EVENTS?

1/14

Sherry Lorange
2018
Attendee

It allows us to connect
with EVERYONE, twice a year
which means a lot because
43% of us work from home.

<Anonymous>
2017
Staff

I love how welcoming Mozfest is
to children and families!
It's the only gathering I know
where playfulness and openness is
hardcoded into the design of the
event to this extent. It makes
me want to come back and bring my
family and friends to explore.

Ms. Bhuvana
Meenakshi Koteeswaran
2018
Facilitator

Mozfest is more of a family get
together and learning through the
sharing of knowledge. Not many
events or conferences focus on
internet health issues and
collaborate on solutions to it.

WHAT MAKES MOZFEST DIFFERENT FROM OTHER EVENTS?

Lainie DeCoursy
2011
Staff

The spirit of MozFest is inspiring, energizing, experimental, unlocking, celebratory, and transformative. Where else can you connect with and learn from people around the world who share an interest and dedication to building an internet that is better and healthy for all?



TEJASWI.NNK
2018
Facilitator

MozFest brings the people together under one roof to build resources. Mozilla is the only community which understands what we are trying to work for. It's a great platform for the young people to come and see what innovation is happening throughout the world.

Claire Selby
2016
Staff

It's completely inclusive, different every time and always brings surprises.



Eriol Fox
2018
Facilitator

A wide, diverse audience and topics which very rarely get the focus and discussion at other tech events. The dedication to gathering folks from far and wide clearly shows in the quality and reach of attendees. The desire to support and work with other runs through the festival.



Mark Davis
2018
Volunteer

MozFest makes you realize that you're not the only weirdo in town that's obsessed with collaboration. The world is full of us!

@cyberdees
2010
Staff

Unorganised chaos. Or the good kind. Totally unexpected experiences which get better and better depending on your spontaneity levels and ability to throw any pre-made plans out the window.

B A Web Of People And Things

by Jon Rogers, University of Dundee;
Michelle Thorne, Mozilla

In 2011, computers inside of things with screens, keyboards or touchpads, the so called internet of things, was a fringe act on the global theatre of the development of the web. People had just woken up to the power of smart-phones and assumed this is where the big challenges of the internet would be staged. It was time to move software from laptops and desktops onto phones. It was time to get mobile. In 2011, everyone was debating “apps”. Science, journalism, and creativity all needed to have openly available, openly readable, openly writeable, and openly participative platforms and tools. The power was in people making these tools. The web was under threat, but with the right tools we could build a better future. But almost nobody was talking about the web getting physical.



At the same time, MozFest was offering unique experiences for those interested in internet health. The festival is powerfully based on the value of giving permission to the participants - permission to learn, permission to make, permission to change the world.

Which is why a group of product design students and researchers from the University of Dundee showed up at MozFest with the world's first "Physical App Store", an exhibition focusing on what might happen if we took familiar Apps and gave them physical presence. We did this in the form of a pop-up stand with working prototypes that helped people see what a device that connected to the internet could do and what the experience might be like. We showcased objects that posed questions, such as:

- What would happen if the BBC had a machine to print live versions of the news on paper?
- What would a SoundCloud radio look like?
- Could images from Twitter go straight to a physical photo frame?

We were never really sure how our slightly avantguard physical interpretation of web applications might be received. However, when Mark Surman stood on stage in the closing party and name-checked the product design students and the University of Dundee for how they brought ideas to life through physical products, it gave them, and all of us, the confidence to come back again. And again. Every year.

"The hands on Sessions provided tools and support to MozFest newbies and those who needed it, creating a horizontal co-creation space where all were able to create and leave with their own lo-fi tech creations made from everyday household materials. Throughout this, there were ongoing debates around ways to create, represent and expand on the notion of a transparent (and even tangible) open web."

Natasha Trotman, Researcher, Maker and an Inclusive Designer

Fast forward to 2019 and what was once a fringe activity at MozFest is now a mainstream cultural topic. The internet of things poses some of the biggest threats to a healthy internet imaginable. Threats that we are

continuing to fight. We turned up with a tiny budget in 2011 with a handful of masters students. We have arrived with a European Union funded joint PhD programme between University of Dundee and Mozilla, with five fellows from five continents who will be the next generation of leaders in this space. The journey to get us here has been incredible.

“One of the main successes of MozFest is its ability to spark ideas and build connections in fascinating and often unpredictable ways.”

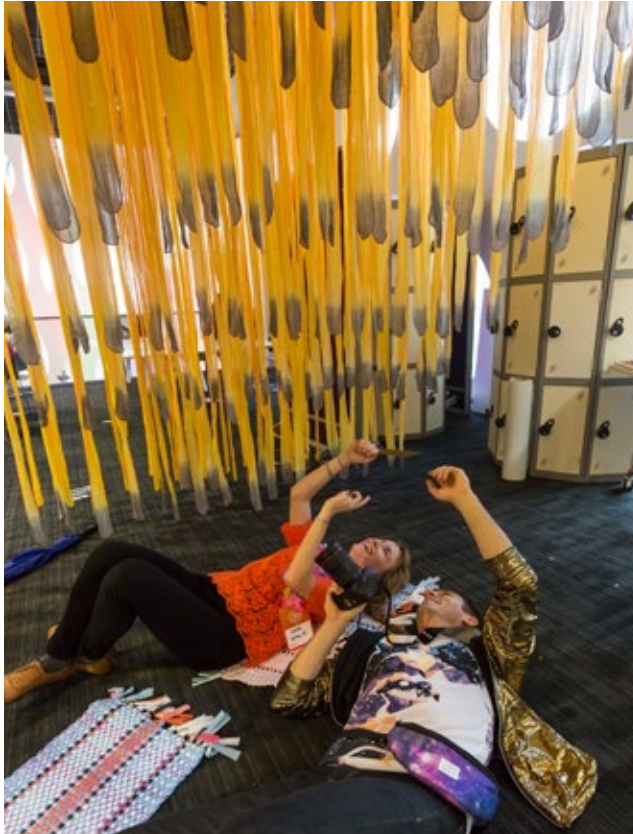
Diane Scott, Lecturer, University of Glasgow

MozFest spurred the team at Dundee onto further collaborations. Showcasing the Physical App Store at the festival led to a collaboration with the National Aeronautics and Space Administration (NASA) and the Space Apps Challenge by turning space data into physical apps. Through these collaborations, between 2011 and 2015, a powerful network of diverse collaborators was formed. We met the wonderful Michael Saunby and his team at the Met Office, and Irini Papadimtriou who was running the Digital Design Weekend at the world’s leading art and design museum, the Victoria and Albert Museum in London. For us, the Digital Design Weekend became a stepping stone in a year of making.

“MozFest has been consistently ahead of the curve in drawing our attention to the risks and dangers ahead of us. When the Arts and Humanities Research Council, the major funder of university arts and humanities research in the UK, set up its ‘Digital Transformations’ theme in 2010, the assumption was that it would be about reusing and re-envisioning data. It was Jon Rogers, Michelle Thorne, and the Mozilla IoT Studio who first made me aware of how the internet of things was embedding connectivity into the fabric of our everyday life. Materiality and making have become as much drivers of digital transformation as data.”

Andrew Prescott, Digital humanities enthusiast

MozFest is a celebration and an exploration of how we might create more hopeful, responsible, and safe futures. But you can't think about the future if you don't think about the past. History, as we all very well know, has the tendency to repeat itself. In a space that explored a very physical web of people and things, we also needed to look back at history. To think about people and things across time.



UnBox, part of Quicksand Design Studios in India, created the Banyan Tree installation at MozFest 2015, (within the Global Village) as a space to share thoughts, build projects, and collectively explore the future of a connected village.

The tree became a thoughtful meeting point over the two days, where participants met for conversations over coffee and snacks (like they would around the village trees of yore) and soon became a sought after spot for other facilitators to anchor workshops as well.

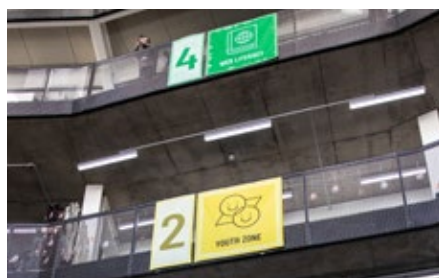
The Banyan tree is the national tree of India. You see them in every village, town, and city with huge dense canopies with roots that trail down to the ground. They form natural ‘tents’ where people can meet, do trade, and live as a community. This spirit of the tree as a centre for life and reflection was something we wanted to bring into the full-blown-busyness of MozFest. We noticed that people were adhering to a very Indian custom for places of respect and worship: they were leaving their shoes outside the space.

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“I was prepared to engage the audience, I was prepared to adapt my language, I was prepared to be surprised by the MozFest as a unique experience. But I wasn’t prepared that there was no need to be prepared...What I learnt from my MozFest experience is that sometimes it’s all about positive energy: we just need to bring it with us, and spread it around, and be open to receive a lot back”.

Dr Antonia Liguori, Loughborough University

We’ve channelled the permission-giving voice of MozFest in a variety of ways over the years. The open, shared conversational spaces of MozFest have enabled us to craft our craft. It’s shaped how we make things. It’s shaped how we collaborate and it’s shaped how we shape the tools we need to shape our futures. We need to design for both opportunity and responsibility. It is the cornerstone of the PhD programme that we will be bringing to and through MozFest for the next three years. We will give them permission to change the very nature of our interactions with the internet, with people, and with things.



C Designing For More Than An Event

by Sabrina Ng,
MozFest Creative Design Lead

The collaborative nature of Mozilla Festival is rooted in do-it-yourself, maker culture that produces an invigoratingly chaotic array of visuals and creations. Each year, we refine and iterate upon past learnings, feedback, and assets to evolve this annual event while maintaining an inviting space for new ideas to honour our community-driven origins. Brand and experience design that manifests the unique identity and participatory spirit of the festival brought methodical cohesion to help create impactful and memorable MozFests.

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We've embraced the evolution of our designed festival experience along with the unique open process of attendee contribution over the years. The community we attract is an eclectic mix of people from artists, activists to tech enthusiasts from around the globe, so understanding their unique needs and goals are essential. The festival blurs the line between creator and participant. Our design system promotes the sharing of ideas, creating connections, and guiding participation to feature various perspectives.

Our branding functions to provide consistency, efficiency, and shareability to unite assets together as a whole. This helps communicate our intent, message, and vision to help the public understand the festival as we extend our reach through digital and physical spaces. From aesthetically pleasing visuals to functional interactive touchpoints, people engage and experience design applied throughout

their journey so it's important to infuse a positive festival experience throughout. These branded experiences also promote and evolve our presence beyond the festival week to create informative impressions of our larger Mozilla presence.

It's important to involve the design process in the initial production planning phases to align with strategy, messaging and programming, which contributes to a holistic brand. Our small design team collaborates with festival organizers and community to collect learnings, feedback, and data from the years to build upon. From qualitative surveys, quantifiable traffic to brainstorming from retreats, we incorporate this insight in our design approach. Identifying constraints such as budget limitations inform how we manage an endless list of possible deliverables. This sets priorities to balance time working with our available resources while optimizing efforts to create the most impact.

Establishing a creative direction influences the audience's understanding of the theme that appears throughout the festival. We embrace the unique annual messaging and programming and utilize it as inspiration for exploring a design vision that encompasses the story of the festival. Once the theme has been finalized, research and brainstorming phases begin, which influence conceptual moodboards and audits to produce thematic visuals. The style guides and direction aim to communicate our message visually by building upon a brand that already attracts attention with evocative aesthetics anchored with our standardized logos and lockups. These designs immediately get to work by attracting new audiences to the festival, such as diverse speakers and sponsorship partners.

Over the years, we've refined the design production system which improved internal processes like progress tracking and file structuring and shareable resources

such as templated assets and libraries. This enables Staff, Wranglers, and Facilitators to create their own aligned assets as we allow open space for contribution, customizability, and creativity. Helpful style guidelines and graphic libraries are shared amongst our team to efficiently save time and effort to build upon what exists to produce consistent design results. Documentation via open platforms, shared drives, checklists, and style guides is an essential part of the design system for distributed teams who'll benefit from unified knowledge sharing. Maintaining future reference for adoption is helpful as the festival occurs each year.

Our design system guides us to create consistent assets while being flexible for customizable variations to create interactive, engaging visuals. For example, this can be applied to a range of assets from stickers, shirts to stages. These opportunities of application can be discovered by creating a user journey map by highlighting touchpoints people encounter throughout the festival. This identifies when and where engaging assets can deliver useful, timely information to attendees when they need it. It's important to acknowledge the various languages at the festival, accessibility needs, and self expression preferences of our audience. Hackable designs such as name cards, posters, and wayfinding are an invitation for customization and play that involves participation. These are opportunities to bring delight, spark inspiration, or start a conversation that can have lasting impressions beyond the festival weekend.

Design is an iterative cycle, but we have to be realistic about how much can get done for the year and prioritize according to festival needs and our own team's annual goals. It's important to sync the content and copy with the design cycle, as it heavily informs the deliverables. Consistent communication for feedback is essential and preparing for the applications to be useful beyond festival

week sets future projects up for success. The design team has an ambitious mindset to make improvements each year to evolve our approach and to face new goals and challenges in future festivals to come.

Brand and experience design systems help deliver our vision consistently as we anticipate for growth and scale of the festival. As we prioritize our message and design each year, it matures alongside the festival's maker culture to be more approachable and accessible which amplifies our reach to a broader audience. Mozilla Festival is growing in popularity and participation, so this impact spreads the awareness of community contributions for a healthier internet. It's been a key, tangible example of our brand expression and interactive platform. MozFest has been a collaborative playground for experimentation and ideation with results that increased the visibility of the event, the movement, and Mozilla. It has informed how we design a socially interactive and engaging experience to evolve the brand while elevating the concept of internet health to the world.



Steph Wright
2015
Staff

MozFest was my first org event after I left academia to work for Mozilla. I was thrown by what first appeared to be chaos. By the end, I was blown away seeing what could be achieved from the equal footing of participants and Facilitators vs. the talking head model of academia.



Aoibheann Mangan
2018
Facilitator

MozFest has lots of different levels which offers something for everybody. There are lots of fun workshops and talks and you get to meet lots of amazing people and have lots of fun. I particularly like the hot chocolate.

Nick Kaufmann
2013
Attendee

I never got the sense that someone's job title or prestige made a difference in terms of approaching them at MozFest. It really felt like everyone was on the same level and motivated by sheer curiosity.

3/14

Emrys Green
2018
Wrangler

The way it is curated by the community and how the feel of the event is so unique every year, because it's a result of a whole community's ideas, passion, and hard work.



Felipe Do E. Santo
2018
Facilitator

MozFest is the most remarkable event I have ever participated in. What makes MozFest different from other events is the unique atmosphere you can find there: you can talk to people from all over the world and from totally different areas of knowledge.

Jesse Ward
2018
Staff

It's unique in its empowerment of women and celebration of diversity in an industry that often lacks these values. Hearing horror stories from other tech gatherings, I was pleasantly surprised MozFest was so different. A Session called "Smashing the Patriarchy" - need I say more!

WHAT MAKES MOZFEST DIFFERENT FROM OTHER EVENTS?



Su Adams
2016
Wrangler

The people, the buzz, the experiences, the warmth, the inclusion, the zany ideas, the commitment & drive everyone brings, the sense of community... I could go on. But most of all, the impact!

Michael Saunby
2017
Wrangler

MozFest is so simple and welcoming, I felt like I belonged from the first moment. Yet it is also so complex that everyone will have a unique experience.



Dom Pates
2018
Attendee

MozFest was unlike most other events I'd ever been to, from experiencing submitting a proposal and the inclusiveness of the agenda to the quality of the venue and range of fascinating, highly participative sessions. Partly restored my faith in 'the good side' of networked tech!

4/14

Kristina Gorr
2017
Staff

I'm always impressed by how MozFest not only welcomes everyone, but goes out of the way to invite and encourage participation from everyone. You are wanted and sought after here, no matter who you are. And that's a great feeling.



Uffa Modey
2018
Facilitator

MozFest provides an amazing platform for peer-to-peer learning. Whether you are walking through the hallways, in one of the amazing sessions, or even having lunch, there is always a vibrant interactive environment for participant engagement at MozFest.

D Ethical Dilemma Café

by Ian Forrester, Senior Firestarter;
Jasmine Cox, Development Producer

Within the notions of net-neutrality and the recent revelations from Edward Snowden regarding mass internet surveillance swirling around the globe in 2014, injecting an ethical dilemma at MozFest was inevitable. Thus, the Ethical Dilemma Café was born.

The café offered popcorn, juice, and smoothies not found anywhere else at the festival, but to enter the café, you had to cross a boundary that required a ridiculous data user agreement. As part of this agreement, your personal information would be plastered through the festival's halls hours later. This experience was about getting out of a chair and experiencing the dilemma in a real, tangible way. Would you read the agreement in order to obtain a glass of juice? Ignore the agreement and quench your thirst in ignorant bliss? Or read the agreement and walk away, and try to find snacks elsewhere because the agreement was unacceptable?

The café itself included:

1. Perceptive Radio, which used the concept of internet of things combined with perceptive technology to tell stories
2. A set of digital beer mats with near field communication (NFC) tags embedded to trigger a smartphone to load a webpage when sat upon it
3. YourFry, a digital storytelling project with a talking book, a collaboration between Stephen Fry and Penguin Publishing & University of Dundee

All of these elements were available to interact with while getting a juice in a heavily caffeinated MozFest. But that was just the start of the ethical dilemmas faced by the patrons of the café.

The Ethical Dilemma Café was a provocation created by the web with things Space Wranglers Ian Forrester, Jasmine Cox, and Jon Rogers. As the concept grew legs, lots of the original idea faded away and were replaced with new ones to really challenge festival attendees.

For example, BBC's Research and Development (R&D) team, Matt Shotton and Frank Melchior, had hacked together the concept of a digital audio/recorder which listened to conversations then picked out key sentences to repeat at random times of the day. They called it a 'conversation box.' At the same time, R&D colleagues in the London lab were interested in taking the conversations and printing them out on dot matrix printer to hang them around the festival. Further pushing the concept that the things around you were listening to you. The original concept of the 'conversation box' didn't quite make it to MozFest, but we decided to take the concept and do something else in the same vein.

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While planning for the festival's version of the 'conversation box,' it was clear the café needed a sign or alert for a privacy aware audience: that's where the idea came to fence off the space with a warning. Handwritten, end user licence agreements (EULAs) were used, as this was one of the most identifiable stumbling blocks of internet of things devices and online services.

With this in place, anyone who passed over that threshold effectively agreed to our EULA. Which meant we could do almost anything within the space. And that's exactly what we did...

Libby Miller & Andrew Nicolaou had been working on a project using Bluetooth and WiFi snooping. Matt Shotton had been doing something similar using WiFi so they combined both to produce a prototype for the “walls have eyes” (WHE).

This WHE installation used Raspberry Pis embedded into small picture frames, all kitted out with cameras and WiFi USB cards. When triggered by an ultrasonic distance sensor (when someone walked in-front of the sensor), the camera took a picture and applied face detection to the image. At the same time, the WiFi cards looked for local devices to extract MAC addresses and information about the network connections the device had recently made. This was inspired by the discovery that similar technology was being used to track how people shop in shopping centres and their paths around the city of London using in tech-enabled recycling bins.

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It was important that the installation had some sort of take-away for people who had experienced it. We decided to give them a physical souvenir of their data (and a promise that the digital version was duly destroyed). Our dot-matrix printer printed out an ASCII version of the image we captured (with the Raspberry Pi camera) a device identifier (Apple, for example) and a list of the MAC addresses of networks recently connected.

As Ravensbourne University’s open-concept layout didn’t have walls and doors as such, we marked with yellow tape a line on the ground to define the experience’s area. We posted our handmade EULA at the entrance and positioned the popcorn and drinks just out of arm’s reach. Festival-goers had to cross the line to reach them, and they had to grapple with the fact that doing it meant accepting our (frankly quite ridiculous) terms. I have always been interested in what people will give up for



NOTICE

- 1) BY ENTERING THIS SPACE YOU CONSENT TO HAVING YOUR DATA, YOUR IMAGE AND ANY CONTENT OR CREATIVE OUTPUT THAT IS PRODUCED DURING AND OR ANYTIME IN THE FUTURE TO EXPLOITATION BY THE ETHICAL DILEMMA CAFE
- 2) BY ~~CROSSING~~ THE WHITE LINE ^{OR READING THIS NOTICE} ^ YOU AGREE THAT THESE TERMS ARE ENACTED AND WILL BE ENFORCEABLE NOW AND IN PERPETUITY
- 3) THESE TERMS ARE ~~UNIVERSAL~~ UNIVERSAL AND APPLICABLE IN ALL TERRITORIES
- 4) THE ETHICAL DILEMMA CAFE RESERVE THE RIGHT TO ~~BY~~ SELL, ~~THE~~ TRANSFORM, RECONFIGURE FOR DISSEMINATION THROUGH PLATFORMS, ELECTRO MECHANICAL MEANS, BROADCAST. AND VIA TECHNOLOGIES THAT EXIST NOW AND IN THE FUTURE
- 5) THESE TERMS ARE NON NEGOTIABLE
- 6) FOR FURTHER INFORMATION REGARDING THESE TERMS CAN BE FOUND ~~SOMEWHERE~~
- 7) THE MAUAGEMENT RESERVE THE RIGHT TO CHANGE THE COLOUR OF THE LINE TO YELLOW

free stuff. It's the ethical dilemma we face everyday but don't really think too much about.

The idea of all these free things within reach but requiring agreement with the physical EULA was powerful. One of my favourite moments was with a son and his dad. The son ran past the line to get free popcorn and smoothie but his dad stood on the line and read the EULA asking what's happening beyond the line while we made his son a smoothie. He then spoke to his son about the importance of reading the EULAs before diving in on free treats.

Over the course of the weekend, we printed out the gathered data and hung the information across the festival's entrance in a gesture similar to airing your dirty laundry in public. The effect was incredibly surprising and divided the privacy-aware MozFest audience; some said it was interesting to see but there was no way they would be happy if it was their data.

This café was a thought-provoking intervention, and at the time it really scared people – which was the desired effect. It inspired subsequent installations at events such as Construct conference, and the Walls Have Eyes was included in the London Design Museum's "Designs of the Year" in 2015.

Since 2014, we have increasingly installed new types of entertainment and automation devices in our homes, schools, and public places that track our habits, with the enticing promise of providing us with new services. The issues raised in the Ethical Dilemma Café are just as relevant today as they were then. Maybe even more so.

Open Science Workflows

WHY

! now



Saturday 3:15 PM @ 9.03

WHO

HOW

Open Science: Spurring Discovery And Innovation Worldwide

by Zannah Marsh, Mozilla;
Stephanie Wright, Mozilla;
Abby Cabunoc Mayes, Mozilla

You might not expect to run into a wildlife biologist at your average tech conference. Or an astrophysicist, or a geneticist. Of course, MozFest isn't your average tech conference. But how did the Mozilla community come to include so many brilliant researchers from such diverse fields?

Mozilla has long recognized a synergy with the open science movement, which seeks to speed innovation and discovery, encourage the sharing and reuse of research data, and ensure broad, open access to scientific knowledge. Many of the key principles of open science mirror those of the open source movement. Open science is a method of practicing science where data and processes are shared openly and freely in a manner that allows others to reuse and reproduce that work. Or, put simply:

"Science by anybody, for everybody."

Brian Glanz, *Open Science Federation*

The web – built originally by scientists, for science – has transformed how scientific research can be conducted and shared. Using the web, open science advocates are spurring a further evolution: a move away from a research culture hindered by bitter competition to one powered by collaboration and enabled by a myriad of online communication tools.

In 2013, Mozilla launched the Mozilla Science Lab as an initiative to help researchers around the world use the open web to shape science's future. The Science Lab brought together a community of researchers, developers, librarians, citizen scientists... anyone interested in making research more open and accessible.



“The Science Lab will foster dialog between the open web community and researchers to tackle this challenge. Together they’ll share ideas, tools, and best practices for using next-generation web solutions to solve real problems in science, and explore ways to make research more agile and collaborative.”

Kaitlin Thaney, Former Mozilla Science Lab Director

That same year, the Mozilla Festival had its first dedicated open science track. Several partners in the “open” Space joined in and presented sessions on building curriculum, prototyping new tools, and developing best practices.

- Neil Chue Hong from the Software Sustainability Institute led a session on “What makes ‘good code’ good” and came up with features of code that make it “good”, as well as a list of blockers to “good code” and how to overcome them.
- Brian Glanz from Open Science Federation and others showed up to discuss “What does open science mean to you?” They even built a web page that remixed

different definitions contributed by participants.

- Billy Meinke from Creative Commons and Michelle Brook from the Open Knowledge Foundation led a session to build new open science altmetrics tools.

In 2014, open science got a dedicated Space, a whole floor, at MozFest. It was a great convener for the movement, and a space to unpack what “science on the web” or “open science” really means.

“(W)hen you come to MozFest and look at the spaces here, people are not developing or coding. They’re working on advocacy, fostering the open web, on open science and localization. These are issues that people are affected by or want to be a part of.”

Achintya Rao, Science writer at CERN

In following years, open science showed up at MozFest with projects like: Code as a research object, helping researchers get credit for their code; Contributorship Badges for Science, using open badges for contributions on academic papers; and Mozilla Science Collaborate, an online platform to foster community engagement on open source projects for science.

Several projects that showed up in the MozFest open science space grew to become much larger community projects post-MozFest, such as: the Open Access Button, a tool to flag when you’ve hit a paywall; the Contributorship Badges inspired the Open Science Badges managed by the Center for Open Science; and PreReview, a platform for collaboratively writing reviews of preprints.

In 2015, the Science Lab welcomed its first cohort of Mozilla Fellows for Science and the Fellows jumped right in to the spirit of MozFest, as has every cohort since. They’ve shown up to design tools to improve the festival, lead projects, and come back to be Wranglers and Volunteers.

The following year, the Science Lab launched the Working Open Workshops and Open Leadership mentorship program. These programs brought in new open science community members and provided training for building skills in best practices and advocacy for open science. A new Open Leadership Zone was created at MozFest, a space for those participants to gather, and share their open projects and resources on working open.

Science floor Wranglers looked for engaging, fun ways to integrate open science across the festival. Some of the most popular experiences included:

- “*DNA Matching Game*” - Participants were given 4-letter code stickers for their badges at registration and if they found someone else across the festival with matching codes they were entered into a raffle.
- “*Open Science Fortune Cookies*” - Participants recharging at the coffee station all around the festival enjoyed crunchy treats containing inspirational quotes about open science.
- “*Build Your Own Brain*” hats - Using a template paper hat printed with an illustration of a human brain, participants cut, colored, and diagrammed their own brain hat to wear around the festival.
- “*Open Project Planning*” napkins - At the coffee stations, participants grabbed napkins bearing the quote “An open project can be sketched on the back of the napkin,” encouraging them to collaborate with other festival participants on the spot.

“In 2016, I was part of their first Working Open Workshop in Berlin and then went on to be a mentor for the Open Leadership Cohort and Working Open Workshop that led into MozFest this past year...Personally, it’s been a great network of really

interesting people to tap into. That's a big part of what Mozilla provides — the ability to convene interesting groups of people who are working on similar types of problems across disciplines.”

Brian Bot, Principal scientist at Sage Bionetworks

By 2017, many of the programs developed by the Mozilla Science Lab had expanded and grown beyond “just science”. The tools, resources, and expertise went beyond disciplines and had become part of the larger movement toward internet health. At the same time, there was a shift in strategy around the Spaces at MozFest: rather than having floors focused on narrower topics like Science or Journalism, most of the Spaces were organized around the broader “pillars of internet health.” Many in the open science community felt drawn to the Openness Space, but there were also more people taking advantage of the opportunities provided by cross-space linkages.

“MozFest is important because it can advance these cross-boundary ideas. Mozilla creates coherent conversations.”

Stuart Lynn, Data scientist at Two Sigma Data Clinic



The Openness Space reflected these new connections by welcoming sessions on the Mozilla Science Mini Grants, building open communities, open source for indigenous peoples, a web-based game about farming, and making parliamentary debate data more accessible. While the open science community gravitated to the Openness

floor, open science sessions were showing up in Spaces and experiences across the festival, on topics as diverse as:

- The accessibility and readability of scientific literature (in Digital Inclusion)
- Building a decentralised open science community (in Decentralisation)
- The accuracy of science reporting around the Hawaii volcano eruption (in Web Literacy)
- Making science and technology queer inclusive (in the Queering MozFest experience)
- Data ethics (in Privacy & Security)

What originally started as a solitary program supporting a community of open science researchers, enthusiasts, and activists, has grown into a larger, more cross-disciplinary community of collaborators and open leaders supporting internet health. The Science Lab grew up alongside the Mozilla Festival. As a result, open science became more deeply integrated across the festival, achieving the original goal of the Lab: “to foster dialog between the open web community and researchers,” from brain scientists to ladybug researchers to astronomers. It’s been inspiring to see over the years how the terminology around science on the internet has changed. “Data-intensive science” and “e-science” used to be the buzzwords around science, now more frequently we hear about “open science”. We see a future where the efforts of our diverse communities – catalyzed by MozFest – embed more and more open practices into science and research, spurring discovery and innovation worldwide.

WHAT MAKES YOU WANT TO COME BACK TO MOZFEST?

5/14

Paul
2015
Volunteer

It is the feeling of entering a safe, creative space, where contribution (and the ability to contribute) is important. That and being part of an amazing team of knowledgeable Volunteers. And the coffee, do not forget the coffee.

Jyotsna Gupta
2018
Attendee

The whole vibe of MozFest, it's not only technical. It's a blend of everything.



Sakthi Anand
2018
Facilitator

We have never had the opportunity to learn alongside so many passionate people and we want to do it once again. We also want to attend the other incredible sessions and interact once again with the Space Wranglers who were kind, curious and supportive.

WHAT MAKES YOU WANT TO COME BACK TO MOZFEST?



Sethu Sathyan
2018
Facilitator

Kevin Zawacki
2017
Staff

The people, the projects,
and the purpose.

The community and the Sessions.
The sense of belongingness to
MozFest family.

Chris Lawrence
2010
Staff

The people and the relationships
are why I come back to MozFest.
The network and culture are both
intimate and expansive. I couldn't
imagine my professional self with-
out this collective.



Minn Soe
2018
Facilitator

The feeling of seeing distant, but dear,
family is a calling that brings me back every
year. To come back and learn from my friends
as they chase their passions and generously
share it with the world. To empower others by
giving back what I can and shape the web that
shaped me.

6/14

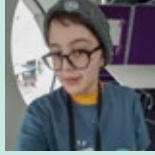
Jenine
2016
Volunteer



Vipul Gupta
2018
Facilitator

The people - I've made great
friends here. The environment
is so diverse and incredibly
positive and happy, thank you
for the memories.

People I met, new bonds that
I forged. Talks I listened, and new
experiences that I had. The honor
of facilitating, helping the commu-
nity grow. Collaborating, sharing
and having fun. MozFest had it
all. Once wasn't nearly enough, and
wish to come again and participate
more actively.



Anna e só
2018
Facilitator

You can't find similar Sessions anywhere.
It's not only about the format but also about
the diversity of Facilitators, activities and
the atmosphere. MozFest is a great reminder
that the world can be a great place.

7/14

<Anonymous>
2017
Facilitator

Every time I learn something
new, every time I find potential
new partners for research and
projects in the coming year.
Every year I am blown away by the
diversity of people and think
this is the future I want to see.

Lindsey Frost Dodson
2015
Wrangler

MozFest can be tough - it's
loud, complicated, and chaotic.
However, I keep coming back
because I've learned to see
the beauty in the chaos - the
accidental collisions, hallway
conversations, and the emergent
Sessions that spark magic.



Juho "JuhRa" Räsänen
2017
Attendee

People and all those cool projects,
and connections. You can freely share
your idea and get instant feedback
and new perspectives.

STORY ENGINE QUOTES

1/2

ESRA'A AL SHAFEI

<https://storyengine.io/esraa-al-shafei/>

"This year, Majal is one of the Open Web Fellows host organizations. We're very excited about that. Mozilla and Ford are hosting a developer to work with us for the next ten months on some technical projects. They also have their own personal projects that they're working on for and with Mozilla, but for the most part, this fellow is funded to be embedded in our team and build projects with us. We're very excited about that and we're very lucky to be a host organization.

Pre-MozFest, we had a fellows onboarding where I met my fellow for the first time. It was really interesting and we got to meet the other host organizations and ask them about their previous experiences. Apart from that, I also led a session at MozFest called "Defiance in the Digital Age" which resulted in very thoughtful discussions."

UGO VALLAURI

<https://storyengine.io/ugo-vallauri/>

"—it's a wonderful festival. It truly represents a great snapshot of what's happening in the struggle for a better web, so it's great to contribute to it."

BABITHA GEORGE

<https://storyengine.io/babitha-george/>

"I believe that MozFest is an event that really aligns with our values in a deeper sense – having patience, being all right with messiness, and knowing that collaboration is messy and can cause strife and anxiety, and being comfortable with that as people are putting together groups and events. These are values that made us connect quite easily."

NIGHAT DAD

<https://storyengine.io/nighat-dad/>

"I think spaces like MozFest are really important. We need to have these spaces more and more. Beyond providing the spaces for people coming from different context or developing countries or places with repressive governments, we also need to provide support to people.

MozFest is really a festival – a non-traditional setting. I like that you don't just go into sessions. You chill. You have fun. The people are casual and very friendly. I really like that. It's my first time at MozFest."

8/14

EVA CONSTANTARAS

<https://storyengine.io/eva-constantaras/>

"Like I said, this is one of the more inclusive events that I've seen. There doesn't seem to be that motivation of, "We want someone to talk about how data journalism is saving the world." You know what I mean? It's not about success stories, they don't want the most refined speaker ever. They're just really supportive of, "We want to hear from the people who care and what they're doing, what they're working on, and how they're doing it." Out of any conference, Mozfest is probably the one to bring them to – because of that attitude."

F Empowering Debate via Art + Culture + Tech

by Luca M. Damiani, Media Artist + UAL Media Design Lecturer;
Iriní Papadimitriou, Creative Director, FutureEverything;
Kat Braybrooke, Visiting Scholar, Humboldt-Universität zu Berlin IRI-THEsys

“As computer hardware and software give us new capabilities... we have to learn to feel with these new abilities. If we can't feel with them, they are numb metal claws and we will probably be less than fully human in our exercise of these new abilities. The vistas of digital art are only as wide as our potential to grasp the possibilities with full human expressiveness.”

Jim Andrews, “Why I Am A Net Artist”, 2011, www.vispo.com

As the worlds of art and technology continue to merge and consumers of digital culture become creators, the web has become an important platform for open, decentralised collaborations that reach across disciplines, from net-art to culture-jamming. Through participatory engagements at MozFest that explore these ideas in different ways, we have explored how digital art practices can intervene in society, and how networked art and open technologies can be combined to empower and amplify.

The idea to introduce a track to MozFest that would be entirely focused on digital art and culture started with a pitch in 2014 from Space Wranglers Paula le Dieu and Kat Braybrooke, who believed that on a 2014 internet, when given the right tools and knowledge, anyone could evolve beyond being a consumer and become a creator. They were joined by remix culture aficionado Erik Nelson, and together they united a diverse group of organisations from Rhizome to Europeana, and Creative Commons to the Internet Archive to help them launch a public

WORKSHOPS

skill sharing

MAKING

beat + music

SPACES

creation

GALLERY

participatory

FEATURING

paragang dharwad shatranj mazzila japan /
severidgocool any burwell / push with
allison hamer / TATE digital studio lica
domani / turtle power forest oblique
gehrdla alvador thure rison rison /
perhaps philo van karsenale filia
proshan / data shadow puppetry thepan
fortuna / when we are to our folk
ginger coons / threashare interactive
storytelling joelle Reumann / exquisite
corpus visual stories michele gay / cox
open the TV trace jagdish internet archive /
using past to change future to push national
archive / redesign your cultural heritage sansa
mazzila janes morey / last hippa meet jasso
dharwad hula auto university empowara grid
at bid / portrait of a creative community artist
jane park creative commons / designing web
infantile manufacturing (caste modern) mazzila
design contributions (caste modern) mazzila
webwork / jessie CLAM rockers jessie rose
helpover / symposium and blog / not
at all / about mazzila / mazzila / not
at all / about mazzila / mazzila / not



to floor

WE INVITE YOU

getting hands dirty



will be encouraged...

TOGETHER

hacking
curating
building
designing
music making

SEE YOU THERE



#ARTOFWEB

ART!

OPEN

what is

hello, world:

WE ARE

ALL

CREATIVE

LIMITED EDITION MINIZINE
/ ART + CULTURE OF THE WEB
MOZILLA FESTIVAL 2014 LBN

call-out for a “living gallery,” which would feature 10 hands-on, digital artworks generated during the 48 hours of MozFest that would be co-created along with festival participants. The call-out got such a strong response that the first-ever ‘Art of Web’ track was born, connecting 40 artists and Facilitators from around the world to bring the living gallery and its workshops to life. Outputs included the creation of an evolving ‘human-user-selfie’ initiative with the artist Alison Hauser, “bots co-creating art with humans” with the developers Forrest Oliphant, Gabriela Thumé, and Vilson Vieira, remixes of Facebook identities through ‘data shadow’ audio puppetry with the artist Stephen Fortune, and cultural skills-sharing Sessions to redesign cultural heritage artefacts through open hardware tools with Aalto University researchers Saana Marttila, Kati Hyyppä, and Christina Holm.

Then, in 2016, Tate’s Luca Damiani (who had first facilitated an activity exploring open source culture for the Art of Web track in 2014) and the Victoria and Albert (V&A) Museum’s Irini Papadimitrou came together to launch the Artists Open Web programme, an exhibition programme and community of artists whose work explores society and the open web. More than a hundred artists have engaged in Artists Open Web since then, their artworks covering topics that have included data literacy, digital inclusion, open innovation, decentralisation, online privacy, and security. The focus of the exhibits and artworks, which evolved each year, varied. Some took a documentary approach, others were structured as complex systems, and others experimented playfully with new technologies and artificial intelligences. In doing so, Artists Open Web has encouraged new collaborations and critical thinking around the exploration of new technological worlds, from big data to post-humanism. It has also enabled the work of upcoming digital artists to be featured in galleries at MozFest and beyond, while facilitating new explorations of the impacts of creative

digital practices, from conceptualising to prototyping, and re-making to experimenting.

A key thread running through all of these subsequent engagements with art and culture at different MozFests has been to explore the possibilities of what can happen when creative producers are encouraged to engage with an 'open' web, and ensure their voices are heard in contemporary debates about how it is managed, accessed, and controlled. This applies both to those who already identify as creatives, and also those who don't yet - but might one day, if given enough encouragement. We have been able to engage with a wide diversity of people who have creative ideas, from fine artists to coders, journalists to sound designers, educators to students, human rights organisations to experimental mixed-media artists. Because everyone has worked together to build each exhibit, gallery and creative intervention, these differences have become strengths. Like the web itself, it is through these kinds of ever-evolving, decentralised and networked multitudes that our world itself evolves for the better.

G Strategic Action For Tech Policy

by Melissa Huerta, Senior Program Officer,
Mozilla Foundation

The internet sits at the heart of our global society and economy. We see how today's technology is built – and by whom – and the decisions made about how that technology is used as political. An open, disruptive internet delivers incredible socioeconomic benefits, and if we as a global society don't work to protect the internet's core features, and balance the commercial interest with the public interest, those benefits will go away.

We do this by:

1. Investing in thought leadership, to build deeper and broader understanding of what constitutes a healthy internet and how we get there.
2. Engaging in direct strategic action and advocacy to advance outcomes that contribute to a healthy internet.
3. Growing the movement that surrounds us in our work, to level up the scale of people understanding and taking actions to support a healthy internet.

Public policy and advocacy are two of the principal levers Mozilla uses to drive impact on issues core to the internet health movement, issues that have recently helped define the MozFest Spaces. Year on year, we invest heavily in shaping public policy that contributes to and advances a healthy internet, and we work to raise awareness among the public so they too can shape society as conscious choosers.

Put simply, we can't do this alone. We need people to be engaged, to stand up for our shared principles, and to demand that the promise of the internet be upheld.

MozFest is the perfect place to drive this sort of engagement. Our smart, global, motivated community shares knowledge about how these issues manifest themselves around the world, and shares tools so that everyone can stand up for the open internet.

Our journey at MozFest started in 2013 in the Look Who's Watching track (back when there were tracks) where participants learned how to control who gets their data, and helped others protect their privacy and develop long-term solutions to tracking. We launched Lightbeam, the Firefox Add-on to expose the hidden data collection by third-party companies and highlight the lack of transparency, new to us in the aftermath of the Snowden revelations. Our Lightbeam demo struggled a bit since the Wi-Fi wasn't always strong, but it was a great conversation-starter!

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In 2014, the sense of urgency around the internet was gaining steam. In the post-Snowden world, a lot of our language was about “fighting” and “protecting.” We wanted folks to be inspired to take action, and not scared of the seemingly endless doomsday scenarios. Although the track was plainly named Policy & Advocacy, our activities included a “superhero photo booth” that celebrated that we are all heroes of the web. Throughout the festival, people dressed up in superhero costumes, took selfies, and tweeted them to their networks with #WebWeWant.

On the mainstage, we announced what was then called the Ford-Mozilla Open Web Fellows, a new program recruiting tech leaders to work at nonprofit organizations that are protecting the open Web. Our sessions spanned issues like kids safety, net neutrality, anti-surveillance, and skills like

the secrets of successful campaigns, tools of the trade, and how to use trouble to your advantage.

Over time, MozFest participants started to see policy & advocacy approaches as part of the core solution-set to addressing the various problems at stake.

In 2015, MozFest's overarching focus was on leadership, advocacy and impact: *We'll train tomorrow's leaders, empower participants to make a positive difference on the web, and work toward universal web literacy.*

We named the Space Digital Citizenship to align with the focus on skills-building around advocacy. We invited experts on human rights, cyberbullying and online harassment, mobilization and community building, and tools-building to share their knowledge. We hosted a Depressed Cakes pop-up to raise awareness about the damaging effects of cyberbullying, and donated all proceeds to MIND, a UK mental health charity.



The Mozilla Policy team showed up with their listening ears on – literally, one facilitator was wearing a dinosaur hat with ears – to host the Dino Tank, our version of the Dragon's Den (global) or Shark Tank (US). They learned more about issues at play in regions where Mozilla isn't actively engaged, and worked closely with the India Community to strengthen their net neutrality campaign.

This partnership and collaboration continues today, working on a variety of salient tech policy issues.

This was our first year in the Library on the 4th floor, and it was the perfect space. A bit off the beaten path in Ravensbourne, the quiet promoted thinking and learning against the backdrop of books. With our inaugural cohort of Open Web Fellows co-facilitating Sessions with their host organizations, our space was buzzing with new faces and questions.

At the closing party on Sunday, one of our Facilitators put his elbows on the table and looked up through the atrium of the building with a smile. “This is incredible. There’s nowhere else where teachers, engineers, policy wonks, and creators of all ages share ideas.” Success!



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From feedback, we learned that people enjoyed the skills-building, but were hungry for more. How could we promote real change at MozFest, and not just talk about it?

So in 2016 we named the Space Fuel the Movement and brought the EU Copyright Campaign, along with many of our network allies working on the campaign across Europe. We focused on how intellectual property rights should foster innovation and creation, not notice and take down. Our main struggle was that the vote in Parliament

was scheduled for October 10th, 2016 before MozFest. But with heated debates still continuing in the European Parliament, we worked to inspire participants to take action and tell their friends how to defend their right to memes.

Conversations were popping, discussing what openness really meant in the face of legislative proposals to regulate user-generated content. Participants sent postcards to their Member of the European Parliament through our campaign website, and used #FixCopyright on Twitter. In her post-MozFest blog, Natalia Mileszyk (another Facilitator) wrote, *“The variety of sessions created a space for reflection about the direction of the movement, and helped us understand and prioritize our issues within a global perspective.”*

2016 was the last year policy & advocacy had their own Space at MozFest, and we couldn’t be happier. The goal was always for policy & advocacy to be seen as approaches in tackling problems, not to be stand-alone topics. With the five issues as the core Spaces of MozFest in 2017, it was now our focus to support the Space Wranglers. With strong collaboration, we helped identify solid proposals within each of their Spaces, effectively creating a curated “policy & advocacy pathway” across MozFest. We thought this consultative role would be the on-going relationship from then on, but by 2018, MozFest Space Wranglers saw the importance of integrating policy & advocacy into their Spaces on their own.

The world has changed a lot in the last 10 years, and the Mozilla community’s role in raising awareness and creating pathways for change through policy & advocacy in society has resulted in a major shift at MozFest and around the globe. We are humbled that the movement sees the importance of this work, and that our beautiful, eclectic, global community is continuing to build and demand the open internet we were promised.



H Queering MozFest: Challenging Expectations of “Normal”

by Stéphanie Ouillon

In 2018, we made a queer territory visible within MozFest.

A year earlier, as I was wrangling for the Privacy & Security Space, I attended a talk titled “Teaching and Making Queer Design” given by designer Pia Pandelakis during the Lesbians Who Tech Paris summit. The approach was appealing and I was keen on experimenting with the design of our Privacy & Security Space. But lack of time and experience made us focus on other necessities.

75 That year at the festival, as I was looking for Sessions related to queer/LGBTIQA+ topics, I only found a couple in the schedule. The session I attended, ‘Queering Privacy through Queer Hacking’ led by security researcher Sarah Lewis, was full.

The year after, I attended MozRetreat in Eindhoven, in the Netherlands, and had no clear idea of what I would do as a Space Wrangler for the next MozFest edition. This turned out to be an excellent thing: the Retreat is designed to help people build their vision for the festival, but it also provides time and resources to find brand new ideas.

In Eindhoven, we were immersed in an environment fostering experiments combining art and tech. One afternoon, designer Olle Lundin presented the “Queering the Collection” and “Deviant Practices” programmes at the Van Abbemuseum, a museum of modern and contemporary art located in central Eindhoven. Lundin

presented queering as a practice, as a way to give visibility to LGBTQIA+ folks in art, and as a way to occupy space at the museum in a different way and engage with visitors.

The idea clicked for what we could do at MozFest: replace ‘art’ by ‘tech’, ‘museum’ by ‘MozFest’ and you’ve got the start of the Queering MozFest Experience.

Choosing the label ‘queer’ instead of ‘LGBTQIA+’ was on purpose. By ‘queering’ the festival, we wanted to look at the world in a way that challenges what we expect to be ‘normal’, and to be the norm. As such, ‘queer’ allows us to position our gender and sexuality in a way that questions normalization and marginalization processes inside the white, ableist, cissexist, hetero-patriarchal, and capitalist system. It is about how our bodies and our practices which are deemed abnormal, strange, or dangerous still exist, resist, and occupy space inside our societies. And we connected this queering experience with tech issues.

At MozFest, we wanted to encourage LGBTQIA+ folks to submit sessions about topics they cared about. This meant drafting a dedicated call for proposals for this Space and engaging directly with them/us to explain what we meant to achieve, both inside and outside the MozFest Wrangling teams.

We also closely collaborated with queer designers and artists to develop a ‘queer territory’ within the festival – to bring the weird and unexpected stuff.

We received about 30 proposals during the call for proposals and accepted 17 of them. Thanks to the help of the Space Wranglers, we were able to embed most of the Sessions in all areas of the festival for maximum visibility and outreach: Privacy & Security, Openness, Decentralisation, Digital Inclusion, and the Youth Zone. Artists also displayed their works in the Data+Art gallery and we set

up a Queer Space to host specific sessions throughout the weekend, next to a lounge space and a giant unicorn.

The Queering MozFest experience was kicked off during the Plenary Session of the festival, for all to see and hear.

We were everywhere. As we very likely have always been, but not in such a visible and open way!

According to the feedback we got before, during and after the festival, the Queering MozFest Experience apparently struck a chord with people. In 2019, a new team had taken the lead to make it happen again: within the same frame of respect and inclusion, it will mutate and explore new directions. And this is the best we can wish for such a *queer* experience.



I Volunteers: The Ethos Of The Festival

by Kristina Gorr, Mozilla

The internet health movement presents a broad landscape covering multiple disciplines, businesses, organisations, the public sector, and more. But there is one strand that weaves every diverse element together into a coherent cloth – Volunteers.

The ethos of volunteering lies at the very core of the movement and how Mozilla operates. It's not just about showing up and being a part of a festival weekend or getting experience to put on a resume. It's about friendships, connecting throughout the year, and uniting together as one Mozilla community.

"The Volunteer program is made up of a group of people who have a love for the open web, internet health, and passion for the community. They embody the internet health movement. Each year they seem to come in on a wagon, jump off, and are immediately running up and down stairs, helping with whatever needs done. Everyone has a task, everyone knows what to do."

Robby Sayles, Volunteer

The MozFest Volunteer program is 100% Volunteer organised and led, top-to-bottom. The program created under the tenure of Chris Foote (Spike), and now in the hands of coordinators Ziggy Mae, Elena Vilimaite, Tom F, and Robby Sayles, is a year long program, with meet-ups, training, and contribution pathways across Mozilla. The team is built from past festival participants, Mozilla reps, former Mozilla Staff, and people invested in open

source that come from across the UK, Europe, and the US. The coordinators work almost year-round on the program, investing many hours to build processes and resources that help Volunteers get the most out of their time spent supporting the festival in their roles.

There is a detailed roster system, allocating Volunteers to tasks that meet their interests while ensuring everyone gets the opportunity to enjoy the festival and its activities. There is even a schedule outlining who gets to dress up as the fox – because everyone wants a chance to be the fox!

“My festival experience usually starts about nine months before MozFest — the festival is the last bit! Most of my time is spent recruiting Volunteers. I also spend months beforehand trying to work out how we can make this year better than last year. I don’t see much of the festival because I am in the crew room, receiving emails from Volunteers, addressing problems and sorting out scheduling. With more than a hundred Volunteers it can take a bit of juggling to make sure people are in the right place at the right time — it can be like herding cats!”

Spike, MozFest Volunteer Co-Coordinator

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Several months before the festival, those interested in volunteering sign up on the website and are added to a database of potential Volunteers. Each person goes through a basic application screening process. Those who make it through the process, about 100 people each year, are invited to the London Mozilla office, for a meet and greet to learn from the Volunteer coordinators about the festival, operating procedures, Volunteer expectations, what Volunteers can expect, logistics of the weekend, and more.

The Volunteer program showcases the amazing talent and tech that London offers, as the majority of Volunteers are local open source advocates that include Ravensbourne

students. Their combined knowledge of the city and the building contribute to the festival's success. But perhaps an even bigger testament to the passion of the internet health community is that some Volunteers pay for their own travel to the festival, sometimes from incredibly far distances, to spend their weekend volunteering. But whether local or traveller, from a six-year-old volunteering with his dad to William Duyck (aka Fuzzy Fox) sprinting up and down stairs with four radios on his belt, our Volunteers are the life-blood of the weekend.

"I appear to be a serial Volunteer, is it just for the T-Shirts? Or, is it for the fantastic excitement of getting hands on with new technology and the warming glow of meeting like minded people. Young, "more mature", short, tall, international, local, student, entrepreneur, the MozFest community is loud, proud, & fabulously diverse."

Donna, MozFest Volunteer

Those who volunteer call their experience "organised chaos," with official shift assignments and walkie talkie communication. Each Volunteer must commit to serving the festival for a four-hour shift in exchange for full-access to the festival, but many get sucked into the magic of MozFest and stay for much longer, regardless of their assigned times.

Volunteers make magic happen in every nook and cranny of the festival's venue. There is no job seen as too big or too small for our dedicated crew. Starting on Friday, the production team and Volunteers work as one team, and as friends. Come festival weekend, the production team is never alone, which greatly alleviates the pressure and stress of Staff. Arriving early and staying late, Volunteers pack swag bags, man the registration desk and the many information desks, assist with floor design in each Space, provide a wide range of services for Wrangler support, make sure everyone is fed during lunch time, ensure technology and audio is set up for sessions, get Foxy into his costume, and much more.

To close out the Volunteer program each year, we end with a thank you party a month or two post-festival, to show our appreciation for the hard work with food, drinks, games, and great conversation among friends.

"I love the communities that form around the festival. These communities have a really important role to play because the challenges the web faces around web literacy and the critical assessment of content aren't addressed in formal education. Schools focus on teaching young people to code, but they don't teach about digital citizenship or how to be safe online."

Tom F, MozFest Volunteer

Thank you to all of the Volunteers who give their time, energy and skills freely, with smiles and lots of heart. Mozilla is indebted to you for your service. We truly would not be where we are today, if it was not for you.

WHAT IS YOUR FAVORITE MOZFEST MEMORY?

9/14

Sam Stuart
2018
Facilitator

Helping design and create, by hand, a 1m by 1m scannable QR Code for a workshop that hung over the edge of one of the walkways.

Nick Kaufmann
2013
Attendee

I went to MozFest six years ago when I was a frustrated grad student on the verge of burning out. The event showed me a new world that was more welcoming and stimulating than my formal academic program. MozFest and the open source community are where my real education began.



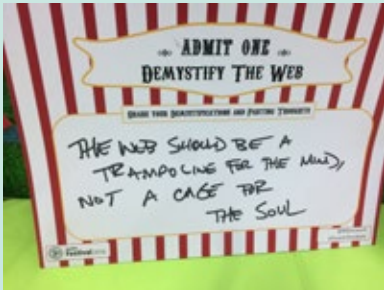
Ian Forrester
2014
Wrangler

My favourite memory at MozFest has to be the comments parents have given after workshops they and their kids took part in at the youth zone. I love how they are blown away by ideas the youth, in particular, share.

WHAT IS YOUR FAVORITE MOZFEST MEMORY?

Kim Wilkens
2016
Wrangler

A highlight for me was as a Space Wrangler for the Demystify the Web space in 2016. It was overwhelming, but in that getting out of my comfort zone and refueling my engine kind of way. Seeing how the space we created was experienced by the participants was unforgettable!



Dervla O'Brien
2017
Volunteer

At the end of the weekend in the Youth Zone, we had a huge pizza party to celebrate and I have honestly never seen so much pizza in my life. We had to get a big trolley just to take it up in the lift. The look on the kids faces when the pizza rolled into the room was priceless!



Marc Walsh
2013
Ravensbourne
Fire Marshal

Back when I was a young Ravensbourne Volunteer in 2012 or 2013, before I started working for the Foundation. I dressed up as Foxy, was put in a catering cage and another Rave Volunteer wheeled me around, shouting 'Free The Open Web'. There were a lot of people taking photos of us.

Nate Dog
2011
Attendee

At an accessibility session, we had to build a paper bridge, but with a bag on my head, with my left hand tied to someone else, who also had a bag on their head too, while another person talked us through the process.

10/14

Kade Morton
2018
Wrangler

I was given the ability to design an immersive world for an international festival. Xenshana was a parallel dimension to Earth, a thought experiment around decentralisation. Such a world had never been created for MozFest before and people loved the experience.



J The Web As A Platform

by Jean-Yves Perrier, Sr. Program Manager,
Mozilla Tech Speaker Program

*“A healthy internet should provide factual information, but also
a way for people to come together and interact with each other”*

Amy Lee

The world wide web has profoundly transformed our societies, connecting us in a way that was unimaginable just a few decades ago. Our modern digital society is modifying our relationships with each other, but also with the services we use and with our work, creating both vast opportunities and challenges.

The web can be defined by the collection of content and applications that are available through it. If you remove all the content, it's reduced to an empty shell, a platform, its infrastructure, and a collection of standards and tools allowing content and applications to be published, discovered, and accessed.

A versatile infrastructure

The web's underlying infrastructure and the rules and patterns that govern it have existed as a unique platform since around 1990. As the web grew and evolved, several positive characteristics showed their usefulness for its success:

- *The web is resilient.* Although it has evolved a great deal, most pages created in the early days are still

usable today. Technically, this is not a simple task; any addition we make to the rules or structure of the platform must be carefully crafted to maintain a high level of backwards compatibility.

- *The web is decentralised*, meaning there is no central authority controlling the web. Websites can be hosted on any computer and accessed remotely. This decentralisation guarantees a large amount of freedom and competition between actors.
- *The web has proved its flexibility*. Initially conceived to display static academic pages, it has evolved to transmit all kinds of data, not only text and images but also video and sound.
- *The web empowers users*, and acts on their behalf. Originally, interactions were limited to move from one web page to another; the addition of a language like JavaScript to the platform allowed the development of true applications as a part of the web. Applications can now be used to produce a variety of tasks. From mailing applications to spreadsheets, the web is now an application platform with its APIs.

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“I appreciate that Mozilla runs the festival [...] in the open. That’s stuff even I’m challenged by. It’s transparency to the tenth degree. That’s pretty powerful. I really appreciate that they’re trying this stuff, seeing where it goes, and kind of always in this constant cycle of, “Let’s try this, see how it goes. Let’s build on it or decide if it’s not for us.” Feedback is quick and used well”

Ian Forrester

Along the way to this incredible, digital world we’ve been building, there have been hard lessons learned to get us here, and numerous challenges are still ahead.

The *backward compatibility* problem is a tricky challenge for any platform. Platforms and languages that became popular and don't ensure compatibility delegate an important burden on their users: the users have to keep up the pace with the changes. They need to constantly update their applications to ensure they will keep working. At each major evolution, such platforms risk losing users who don't have the time to update it.

The web took the other path, choosing to maintain backward compatibility.

As any extension to the web platform will stay forever, at least as soon as websites start using it – the task of the browser makers is daunting. Each new feature has to be carefully evaluated: usefulness, design, security must be studied to be sure it will not bloat the system or be a hazard in the future. This is a complex task and it takes several years for a new feature to go from the design stage to production-ready and stable.

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Over the years, decentralisation, while positive in most regards, is not picture perfect. The internet, networks and web protocols are all decentralised – distributed servers host different websites – which means more and more complex services are needed that are not a part of the official infrastructure. For example, mapping services, and speech recognition websites are complex and are usually hosted remotely by large companies. This concentration of features is a centralisation force: even if the infrastructure itself stays decentralised, these features aren't. As more and more services are needed, the decentralisation of the web is again a challenge.

Similarly, large social media services try to create silos for content in order to keep their customers. They ease the publication and discoverability of the content but make sharing outside the silo difficult. These silos undermine

the original fundamental decentralisation of the web: and create bubbles, that coupled with targeted advertisements, can segregate a specific population, altering its perception of the world.

The web has also attracted all kinds of bad actors to a platform that has not been designed to resist such threats: identity theft, bullying online, fake news, and discrimination by both users and Artificial Intelligence, and countless other issues invade our digital world. These problems are openly and heavily debated. The solutions may be technical, but as they limit the legendary freedom of the web, public awareness is critical.

*MozFest: A solution and a
challenge for our generation*

Open forums and discussions are fundamental in maintaining the success of both technologic and humane advances of the web. MozFest has served as a catalyst for these types of conversations and progression over the last 10 years. It is helping build up the internet health movement by fueling numerous discussions to enhance and build upon the positives while detecting the different threats and trying to find creative solutions.

“MozFest provides hope that the web can still be weird. There are wonderful, thoughtful, imaginative people out there who want to build and connect openly and freely, for the benefit of all. The optimism and generosity at MozFest can melt a misanthrope’s icy cold heart.”

Erika Drushka

At MozFest, you can find a number of ways that people are exploring the web as a platform. Over the last 10 years, the web has become a genuine gaming platform, allowing to plug your usual controllers, real-time animation in 2D and 3D. In 2017, Thomas Balouet created WebVR

Tower Defender, an interactive VR game, and brought it to MozFest.

“During our session, participants were able to play our game, and discover the different interactions possible. Participants were invited to customize the game, either by creating their own 3D models to integrate in the game (using different set of creation tools on desktop or in VR), or by developing their own game components (by remixing existing A-Frame components we’ll have developed).”

New devices, like Virtual Reality (VR) headsets already have browsers integrated with them and the paradigm “Write once, run everywhere.” has never been truer than with the web.

Over the past 10 years, MozFest has helped foster the web we have today. It is an amazing journey, working towards making it a healthier, safer, and fun place to be.

The road ahead will be bumpy and challenging, but there is no doubt that the communities brought together by MozFest will continue to steer the web to an even better future.



K Youth Zone: A New Generation For Internet Health

by Zannah Marsh, Mozilla

In MozFest's Youth Zone, young creators build robots, dream up epic role playing games, use lasers and binary data to make art, and compose interactive poetry with code. When young people and technology meet in an open, collaborative, playful environment like MozFest's Youth Zone, truly unexpected things happen.

"As a young teenage girl in the tech industry, I often find myself shunned, underestimated, and even ignored, but at MozFest you're not judged by your age, gender, appearance or background, but by your ability to think, be creative and envision an unexpected future. I never expected to start programming. I never expected to teach kids how to code. I never expected to go to MozFest, let alone present at it. Who knows what else I can do?"

Hannah McMullen, Youth Zone Facilitator

The Youth Zone is rooted in Mozilla's legacy education and youth-focused programs – from our Webmaker suite of tools demystifying the web; to Mozilla Clubs and Maker Parties for hands-on-tech learning around the world; to the Hive Project, a network of technology education, youth, and community change organizations.

In fact, the precursor to the Youth Zone was launched at MozFest 2011, as the Hive Pop-Up. Taking over Ravensbourne's ground floor, the Pop-Up represented twelve partner organisations from the Hive. Each

organisation brought an activity for youth. Around 60 young people flocked to the Space. In an activity facilitated by New York City's DreamYard art center, they imagined their ideal tech-enabled creative hang-out space and molded tiny furniture to fill it. They collected audio interviews with youth radio initiative Radio Rookies, designed board games with New York-based Institute of Play, and much more.

The 2011 Hive Pop-Up laid the groundwork for the Youth Zone in the years to come: a collaboratively produced Space, with a focus on play, exploration, imagination, risk-taking, failure, and discovery for young people — and the young at heart. These offerings, like the festival as a whole, were a collaborative venture, shaped by ideas, and insights from a variety of contributors. In 2012, new partners came on board including educators from Black Girls Code, Coder Dojo, London Zoo, the creative technology non-profit MOUSE, Digital Me, and Global Action Project. The 2012 Space featured a “Hacktivate Learning” track, design challenges, a Youth Laboratory, and hands-on hacking in the Games Arcade.

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Dorine Flies, a 2012 festival attendee and parent, came on board as a key contributor in 2013. Dorine felt strongly that, as the consumers, technologists, and creators of the future, youth should have a special place at the festival, both as participants and session facilitators. Dorine led the first official “Youth Zone.”

“I wanted to explore the idea that if we invited youth to share their passion for making using tech with each other and us as a wider audience, would it help them become more inclusive of ‘others... The first two years of the Youth Zone were mad but amazing, it was this divergent free space that truly and freely embraced young people to share their passion, it was fabulous to be instrumental in making that happen. My all time favourite moment was when I had finally managed to recruit a young

hacker to actually come share some of the trade secrets. It was standing room only for his session, the buzz in that tiny room was amazing, its popularity had taken us by surprise... At the end, two other youth hackers came to find me asking if they could do a session the following year."

Dorine Flies, Youth Zone Wrangler

From 2013 to 2015, the Youth Zone evolved and expanded, growing to take over the entire second floor of Ravensbourne, and housing workshops on social justice, robotics, Virtual Reality (VR), Raspberry Pi, and cyber-hacking, to name a few.

Su Adams, a primary school educator and longtime champion of the Youth Zone, came to the festival in 2014, with students in tow. In the following years, Su returned as a Facilitator and as a Wrangler. Her energy, creativity, and connections to communities of local educators have been key in growing youth engagement with MozFest. A veteran contributor, Su has facilitated sessions on topics as diverse as creating digital doodles for interactive sharing and designing participatory exhibitions using the electronics invention kit Makey Makey.

In 2017, when the festival adopted the internet health issues as an organising principle, the Youth Zone fully embraced this change, diving into the issues in all their complexity.

"The Youth Zone space is a little different from the rest of the festival – where usually each Space is only devoted to one internet health issue, the Youth Zone tries to engage with all of them. The Youth Zone allows entry into the festival no matter your level of experience or age. Participants learn web literacy from the tools and languages taught in beginner workshops. They see decentralisation in action when they program their own IoT microcomputers and see what's possible through local pi networks. They learn about privacy through board games and

openness when they send tweets through APIs. Having this space allows parents, children and young people to take part in important discussions, allowing their perspectives to be heard.”

Dervla O'Brien, Youth Zone Wrangler

The Youth Zone is designed to give young people the skills, confidence, resilience, and daring they'll need as the artists, designers, engineers, activists of our complex, challenging future.

Ryan Warsaw's story

A Volunteer contributor to Webmaker project at age 14, Ryan Warsaw was 15 at his first MozFest in 2015. He became a Web Literacy Wrangler in 2018.

“Mozilla Festival is amazing. Youth Zone is a wonderful space for young people to support each other, learn and educate others about issues of the present and future. In 2015, I was invited to attend the festival on a stipend, it was a scary but exciting prospect. The trip was the first out of my home country (USA), as well as the first time I had done any kind of public forum or talk. I was super nervous (and excited!) to say the least.

The best part of the festival is the people. The Wranglers and Staff that work tirelessly to support sessions and speakers, of course the awesome folks who run the sessions and the amazing attendees who make it all worth it. The Wranglers genuinely care about making sure you have

everything you need to be at your best. You will never feel alone, disengaged or frustrated without someone there to walk with you. (Massive shoutout to Dorine Flies, you're awesome =^D)

My experiences at MozFest ultimately helped me land my first job in the industry, I've met some really amazing friends that I stay in touch with to this day, and it's also inspired me. It will give you a lot of perspective and open your eyes to what all is possible.

One of my favorite moments from the festival was in 2017, I ran a session about making your own simple 2D game using Thimble. My demo was a recreation of the popular game Flappy Bird called “Flapper” starring Tucker the Toucan from Webmaker (now defunct). A few hours before my session, we discovered my demo breaks on the Raspberry Pis and so a bunch of friends got together and we figured it out! It still eventually broke, but less significantly than it would've before. =P”

Joseph Thomas' story
**A tech education Volunteer
 and computer science
 student, in 2015 at age 16
 Joseph found his natural
 home at the Youth Zone.
 He became a Wrangler in
 2018, and returned in 2019.**

"In 2015 I was a Facilitator, running a session teaching a mainly young audience (with a few adults dotted around) about the joys of integrating coding hardware and software – press a physical switch and an explosive went off in the game they were playing. Little did I realise that this would foreshadow the session's ending.

Just as the session was coming to a close there was a loud BANG, a flash of light and every screen and light in the room went dark. We were running power from boxes that were set into the floor. As it turns out these boxes were designed in a way that the cover would sit flush with the rest of the floor, with a hole at the edge for cables to run through. If you didn't quite arrange the cable correctly, the cable would sit between the lid and the lip of the box, pinched between the two. Add to this a day's worth of people walking over the box and the insulation of the cable was slowly worn... At that point – BOOM – you get an electrical short, resulting in a flash of light,

an audible bang, and a quick trip to the building management team with your tail between your legs as you very politely ask them to flip the breaker back on.

In theory, that electrical fault could have easily caused a much wider issue – it only took out power for the single floor, but as Ravensbourne University is located right next to the concert venue O2, the possible consequences are obvious. O2 also happened to provide my mobile phone's service, so you can imagine how awkward that "I'm sorry for causing an outage" phone call would have been! And it's for that reason that I always retell my first MozFest as the "time I nearly took out power to the O2."

As catastrophic as that sounds, that first year encapsulates exactly why I keep returning to MozFest. When you have an event like this, something is bound to go wrong, but the organizational team was so helpful, giving me enough coaching that I felt confident in being able to finish a session that had all of its resources taken out by an explosion. It's an event like no other, and one I'm so glad I'm a part of year after year."

Dervla O'Brien's story

A computer science student, Dervla was 19 when she first came to MozFest; she's wrangled in the Youth Zone in 2018, and 2019.

"For me, the festival opened so many new worlds. Every time I spoke to someone – in the coffee queue; in the workshops; sitting over lunch – they were doing or making something incredible. They were open and willing to share it. However, the thing that really hooked me was the energy in the Youth Zone. There's so much excitement in the Space – young people know what they like and dislike and they don't waste time not telling you about it. Magical things happen when we take young people seriously. When we listen to their opinions and ideas and give them a platform to show what they can make.

Elise Ainsworth's story

Elise has been involved in MozFest since age 11, first as a participant, then as a Youth Zone Facilitator.

"This year will be my fourth year at MozFest, and every year has been different, but in a way that excites me, because of how it means that every year I know I have something new to look forward to. It has had a huge impact on our lives, as I've met so many people and learnt so many things... like how to prepare for and present workshops that reach more age groups, improve and be more confident in my public speaking and presentation skills, as well as developing my computer skills and knowledge of the internet from each

In 2018, we had an open makerspace where we invited participants to make robots or inventions of any sort and helped them add small circuits to them. A little girl entered the Space who was quite shy and a little overwhelmed by the festival. Then, after seeing the materials she proceeded to make a huge claw machine taller than she was—using just tape, cardboard and pure innovation. She managed to add lights and pretend prizes and a whole claw contraption. We were all blown away. Her dad later found the Space Wranglers on Twitter to tell us that he had never seen his little girl become so confident and interact so much in a room full of strangers.

Anyone who's been involved in the Youth Zone can attest that if you really care about the internet and protecting it, you must engage the next generation of internet users and builders in your conversations. There are no better partners!"

workshop that I presented and attended. I took part in a discussion panel during MozFest 2018 with a wide range of people of different ages, which was a new and exciting experience for me. I was also interviewed on camera by the organisers, which I hadn't done before.

I was 11 at my first MozFest and now I'm 14, I've been every year and loved attending all of them. I have friends with whom I stay in contact with throughout the year, and new skills I can use, as well as more confidence that comes from delivering workshops. I think a key moment every year is the welcome presentation, when all MozFest participants sit together and get introduced to MozFest- it dawns on me, at that moment, how incredible the community at MozFest is. :)"

WHAT IS YOUR FAVORITE MOZFEST MEMORY?

Caro
2018
Wrangler

MozFest is a space where everyone is included. No matter the nationality or the language... in 2018 I had the opportunity to attend the first workshop happening in Spanish. Both the Facilitator and the audience were Spanish-speakers. It was a simple but powerful moment.

Zannah Marsh
2018
Staff

In the 2018 DI space we had a tea party: Facilitators & Wranglers brought snacks & tea from home cities, a DJ played music. As a break from the busy Session schedule, people came to meet, talk, connect. It reminded me that the power of MozFest is in connections and relationships.

Philo van Kemenade
2011
Attendee

I witnessed the premiere of a documentary running in my web browser, along with the toolkit to create this kind of stories. It made me realise that if I want to reach people where they are, I should make the Web my medium of choice.

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Teon Brooks
2016
Attendee

One of my favorite memories of MozFest was at the beginning of my open science fellowship, and being introduced to the chaotic good of MozFest for the first time. A group of fellows organized a lightning talk round off-schedule, and I presented my zine called, The Body, ELECTRIC.

JayaPreethi Mohan
2017
Facilitator

I became a MozFest Facilitator when I was 19. With so much of fear and confusion, I began facilitating my session in the Web Literacy Space. But the Mozillians who attended made it easily interactive and listened to me without judgement.



WHAT IS YOUR FAVORITE MOZFEST MEMORY?



Elena Vilimaité
2014
Attendee

At my first MozFest, or more accurately after it, when everyone was just sitting on the floor sorting out cables. I remember feeling so tired yet fulfilled because I knew that I just helped this amazing festival happen and met so many interesting and amazing people during it.

Jonathan Prozzi
2017
Wrangler

I loved helping to bring the Web Literacy Garden to life! We aimed to create an uplifting experience using the metaphor of the garden, and how everyone can help empower themselves and others to plant seeds and provide nourishment to create a healthy internet focused on inclusion.



Stuart Lynn
2014
Facilitator

Being randomly connected with Georgia Bullen who was looking for help mapping some data. We sat in the corridor and made some interactive web maps, which ended up being part of an Amicus Brief for the Ninth Circuit court in a case about data privacy and cell phone data!

Monica Granados
2017
Facilitator

Scattering a meteorite field inside the walls of MozFest for rovers built by participants to discover. Along the way many more laughs than meteorites might have been captured by the make-shift rovers, but everyone learned the power of saying "yes and" to challenges.



Abigail Cabunoc Mayes
2014
Wrangler

Each attendee received a "DNA" sticker for their lanyard. If you found your DNA match & brought them to the Science floor, you could enter a raffle. My favourite MozFest memory was watching a kid run up to Mark Surman and drag him to the Science floor because they matched!

L The Revolution: Read, Write, And Participate On The Web

by Amira Dhalla;
Chris Lawrence, Co-Founder, Loup Design & Innovation

MozFest gave me the confidence and community I needed to learn to code and experience the joy of making things work. While the code mattered, the MozFest community mattered more. I needed an audience, cheerleaders, collaborators, critics, and mentors. MozFest introduced me to all of them.

Chad Sansing, Mozilla

As the 21st century reached its second decade, it was apparent that “real life” and “online life” were just becoming “life.” As the possibilities of the world wide web became multiplied, individuals everywhere were looking for leaders to teach the crucial skills that were sure to become the dominant backbone to our existing industries and ones we had yet to conceive. With this hyper-speed blending of our digital and analog lives, web learning and development for much of the world was becoming critical.

Global economies were slowly picking themselves up off the floor of an almost full collapse and techno optimism was motivating this slow-burn recovery. The recovery was partially fueled by a technology sector that seemingly had a solution to any of our problems. Have a social problem? There was an app for that! Techno utopia was the spirit of that age.

It was an exciting time in this web 2.0 world. As we embodied this Techno utopia, there was a growing desire to create a world where people understood the web, its

principles, and the platforms that make it. It is this ethos that led to the growing movement of web producers and makers. Education early adopters were armed with paperback copies of Seymour Papert's *Mindstorms: Children, Computers, and Powerful Ideas*, and issues of Make Magazine. We were ready to program, not be programmed!

Mozilla and our allies were excited to participate in the emerging movement of foundations, non-profits, universities, governments, start-ups and grass roots educators. Digital storytelling, web mechanics, coding, new tools — helping to define what it means to be literate in the 21st Century. It felt current, important, and fun. We knew that teaching a holistic set of digital skills was more than just learning to code or building out the STEM career pipeline. We believed it was an evolution of the fundamental skills and competencies needed to read and decipher the frighteningly fast world around us. This wasn't just a new subject, this was a seismic shift in how the world works and civil society better figure out how to teach the web. We wanted to help.

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Looking back on 10 years of this work, the pivotal moment for Mozilla's focus on web literacy was the development of the Hackasaurus web tool (later renamed X-Ray Goggles). From the imaginations of two friends and collaborators, Jess Klein and Atul Varma, this web app would allow you to turn on a view source tool that lets you see, understand, edit and re-publish the web. It was like having special glasses that revealed a deeper, more detailed reality than what loaded in your browser, often referred to as a peek behind the web screen. Mozilla had found a curricular inspiration for our ideas around being web literate.

Emanating from the spark Hackasaurus/X-Ray Goggles provided Mozilla and the forming open digital education community it was coraling, Mozilla launched the first

Summer Code Party in 2012. This amplified Mozilla's efforts to teach how to read, write, and participate on the web at global scale. Mozilla's Hive Learning Networks were crucial to building communities in local cities like NYC, Toronto, Chicago, Pittsburgh and others to help develop the web literacy skills of youth while catalyzing local movements to help educators innovate in digital learning. Together Summer of Code Party (renamed Maker Party in 2013) and Hive Learning Networks were supporting a movement of teaching crucial 21st century skills and web literacy to informal educators, teachers, and advocates. By 2015, there were thousands of "Maker Parties" in hundreds of cities every year, teaching people of all ages to learn the web.

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Jess Kellin



X-Ray Goggles helped begat a string of web making tools like Thimble, Popcorn Maker, and AppMaker. These tools made it easier to use the actual languages of the web like HTML, CSS, and Javascript to be creative. These experiments helped demonstrate how web literacy skills like collaboration, openness, remixing, and coding could be facilitated and acted as starter software for people who would later graduate to more mature tools. These web making tools helped seed further innovation in other popular web tools and projects such as the Hour of Code, Glitch, and Scratch.

There also needed to be a rigorous rationale to bring the concept of web literacy closer to the mainstream of academic thought and practical application. The Web Literacy Map, co-created by Doug Belshaw (Open Educational Thinker) and the Mozilla community, and further developed by An-Me Chung (Fellow at CS4ALL) and partners, was a matrix of skills and competencies one needed to be web literate. This framework has since been adopted, remixed, and evolved as people in wider education communities pick up the map and advance them in their own local contexts. This think tank style work was validated by the Brookings Institute when it published an article in their Skills for A Changing World series written by Mozilla's Executive Director Mark Surman and Mozilla Fellow Meghan McDermott. In the op-ed they say:

“An adequate education in web literacy would provide a framework for understanding the internet. It's not just about learning to type or to use a computer or smartphone, nor is it about mastering a programming language like JavaScript. It's about the gulf in between.

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Web literacy requires understanding the difference between a web browser, a search engine, or an app, and being able to leverage each. It's about knowing how to evaluate online content, and knowing how to differentiate between the credible and the dishonest. It's about the ability to thwart phishing attempts, to craft strong passwords, and to control how personal data is collected and used.”

Web literacy has always been at the center of conversations at MozFest. During MozFest's first year in Barcelona, web literacy was a space where individuals would gather to discuss the question of “what do people need to thrive online and how do we help them?”. Now, in the 10th year of MozFest, it is a Space for a movement that seeks to make web literacy a core modern skill along with reading, writing, and maths. It has been a gathering space for

projects with audacious goals like “Cities of Learning”, “Computer Science for All”, and “Open Education.”

None of this was by accident, the simple pleasure of teaching and learning has always been at the core of the MozFest design. Participatory and self guided, but well organized and conceived, is the pedagogical mission of the event and the best ways for people to gain digital skills. The web literacy spaces through the years have been able to balance a wide range of educators, youth, scholars, developers and activists, holding both the technical and metaphorical aspects in tandem. Over the decade the Spaces were curated and lead by a wide range of Mozilla Staff, community members, and UK edtech champions like Su Adams and Dorine Flies.

MozFest served as the crucial point of the year where the global community would come together to learn and share their experiences. Leading by example, web literacy programming was hands-on and engaging by nature and focused on individuals of all ages sharing games, technology, and programs that taught web literacy. Individuals gathered to test new tools like Erase all Kittens, or develop new learning games, or share what worked in their Mozilla Club in Kenya, or explore digital animation through green screens.

The web literacy program areas always had flair. From bedazzled lab coats to circus chic themes, the participants always enjoyed the curated Space. One year you entered a Carnival of Learning where you could demystify the web, or as Space Wrangler Kim Wilkens explained, “Embrace the unknown! Experience the thrills! Imagine and share the full potential of the web with everyone!” Other years we threw giant Maker Parties where local youth and international digital learning organizations made, played, and learned together. We just can’t forget moments like:

- *The first Global Hive meetup* where over 80 people gathered in a space and saw each other, not as individuals from distant places meeting for the first time, but a joyous celebration of the bonds they had already shared helping each other bring digital learning to the learners they worked with. From London to San Francisco and Punay to Pittsburgh, we used yarn and post-its on a map to chart our connected learning.



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- *Mozilla Clubs around the world* where educators shared how web literacy skills are taught and adapted in ten different countries. This was exciting because we were able to bring educators to MozFest for the first time from places like Columbia, Rwanda, and South Africa, to name a few.

What is increasingly clear is that web literacy was always about more than “what is a browser” and “how do I remix my first string of html.” Will either of those things matter in five years? Do they matter now? We find ourselves in a much different space with the scale of technology as we begin the third decade of the century. Long time

web literacy contributor and MozFest Space Wrangler Simeon Oriko sums up this shift well:

“I think web literacy has evolved to reacting to threats facing the web rather than a proactive effort to create and teach tools and services that help people meet their goals and participate online meaningfully. Instead of learning and creating, we seem to be defending and advocating. MozFest and the web literacy experience was how I learned to organize and motivate people to be active participants on the web. Now that we’ve got this community, I think we’ll spend a good portion of the future organizing how to defend the web. It’s necessary – I think – but quite frankly, I’d rather play offence than defence.”

Now, more than ever, the communities working on web literacy and the spaces for them to gather are critical to the future of the web. The connections of these global individuals allow them to further advocate and protect the web in collaborative and innovative ways. The web ecosystem is growing and as more threats become apparent, the importance of MozFest’s web literacy community will grow as it continues to hold true to:

Reading the web:
critical looking and thinking

Writing the web:
fighting for every space you can still build

Participating on the web:
making your voice heard



Privacy In The Internet Age A Fundamental Right

by Jon Lloyd, Head of European Campaigns, MoFo;
Georgia Bullen, Executive Director, Simply Secure;
Priyanka Nag

Privacy is a topic that surfaces everywhere we go and is core to everything we do at Mozilla, and at MozFest.

Individuals' privacy on the internet is fundamental
and must not be treated as optional.

At Mozilla, we have developed five data privacy principles, stemming from the Mozilla Manifesto. They've guided our approaches on everything from Firefox to advancing our policy and advocacy goals to how we select and interact with partners.

*We believe the privacy fundamentals for
a strong and healthy internet are:*

- *No surprises:* Use and share information in a way that is transparent and benefits the user.
- *User control:* Develop products and advocate for best practices that put users in control of their data and online experiences.
- *Limited data:* Collect what we need, de-identify where we can, and delete when no longer necessary.
- *Sensible settings:* Design for a thoughtful balance of safety and user experience.
- *Defense in depth:* Maintain multi-layered security controls and practices, many of which are publicly verifiable.

In the MozFest community, we constantly find ourselves advocating for privacy awareness, privacy protection, and privacy by design. However we don't always pause to stop and articulate why privacy matters to us as a community.

In order to succeed here, we need to ensure we are conveying an essential truth in language that makes sense to the broadest and most diverse audiences.

Privacy matters because.....

"Without privacy, freedom of expression becomes much harder, particularly for disadvantaged communities."

Ross Schulman

"With the secrecy behind the algorithms in AI, I want to make sure that my private data isn't used in those algorithms to create biases against me or my family, or community."

Stephanie Wright

"It protects me from being victimised by the powerful."

Dirk Slater

"It is a basic human right."

Anonymous

"Without it, I have to justify every action I take, instead of my actions only being questioned when they are harmful to myself and the world around me. Creativity, exploration, and general freedom of thought is attacked when my privacy is violated."

Dervla O'Brien

"We need privacy for the expression of ideas, test them, explore them. If ideas are censored, this means existing power structures are difficult to challenge."

Anonymous

"Humans need privacy just as we need socialising. If we are forced to self censor, the bonds of civil society start to corrode."

Anonymous

"When things become intrusive, I feel one's power to act, speak or just be (exist) is taken away and when privacy is further jeopardized, this power of autonomy is taken away completely. Human beings, in their interactions with each other, and systems rely a lot on trust and goodwill and therefore if privacy is not guaranteed, mistrust is bred and the results as we know it are harmful."

Anonymous

"Privacy matters because data about ourselves can be used to manipulate us. Choosing what to share gives us control"

Andy Forest

"Privacy is essential to creating safe environments, places that foster trust and enable people to find their voice"

Sean Gilroy, Leena Haque

"Even if I've "got nothing to hide" right now, others aren't so privileged. We all need to stand together to support those that need us"

Jon Tutchter

A Healthy Internet

Ultimately, the internet only stays healthy if we trust it as a safe place – to explore, transact, connect, and create. Trust comes from feeling that our privacy is recognised and respected by the people handling our most sensitive information. But our privacy online is under constant threat, and many communities around the globe remain unaware of the consequences.

"We Indians still take our online privacy very casually. Most of us think that issues like identity theft, online stalking, etc. will never happen to us. We choose to ignore, until we are the victims of such acts. And that is definitely scary. Have things got a little

better than before? Well, definitely yes. More people have started being aware and more people have started talking and working towards online privacy. But with more and more people coming online every single day with initiatives such as Digital India, a government program to ensure quality and equality in connectivity, we still have a long way to go.”

Priyanka Nag

To many, meaningful privacy choices are absent online. The limited options are often:

- Use a product and hand over control of our data (or worse).
- Do not use a product and thereby turn away from fully participating in the digital economy, usually to our own detriment.

This has to change. All users should be able to choose what information is shared with companies, understanding the trade-offs being made when an agreement is reached.

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Governing Privacy

The European Union’s GDPR is a powerful start in putting users in the “driver’s seat” of how their data is used. And it’s promising to see other countries looking toward this legislation as the benchmark while they look to regulate the internet themselves. But we see GDPR as the floor, not the ceiling, of what’s possible in an internet that puts people first.

The future of the internet is full of complex privacy issues, especially when it comes to AI and machine decision making. We’ve already rolled up our sleeves and started work on these topics. We’ve called out eavesdropping AI assistants, called Facebook to account for disinformation, and interrogated YouTube’s recommendation algorithm.

While companies have been collecting data about users and making assumptions about their preferences for decades, modern machine learning has accelerated this process and is so embedded into the modern internet that it's hard to go anywhere online without unintentionally giving away details about ourselves.

One powerfully negative consequence of this lack of governance has been a reinforcement of discrimination against specific groups of people. Some of this information – like sexual orientation, politics, religion, ethnicity, and more – has serious implications for the safety of people if their governments (or others) ever found out.

*Working Towards Strong Privacy Practices
Within A Healthy Internet*

As people expose themselves to different digital vulnerabilities, we need to teach online privacy at an extensive level. Mozilla will continue to work with policymakers, companies, and affected communities in looking into solutions that ensure user privacy is paramount in the future of the internet.

Over the years at MozFest, we have seen many Facilitators introduce new and creative ways to point out ways users can take control of their online privacy. Every year, more participants leave MozFest with a few more tools to protect their well-being online, and a little more emboldened to demand that technology respect people.

The festival has given us, and continues to give, the opportunity to connect with the broader community and organise around issues like privacy, security, and our digital rights. It also allows us to come together and build open tools that make the web a better place. A place where we control our own data and define what matters most.

Privacy is a fundamental right we must all uphold together. We must stand together, as a united community of advocates for a healthier internet, and build the future we need.



WHAT IS YOUR FAVORITE MOZFEST MEMORY?

Chad Sansing
2011
Facilitator

There's a moment I think many of us share: standing on the balcony Friday or Sunday night, looking down at the science fair or demo fair below and realizing we belong to a movement greater than ourselves that nevertheless values and works to include each of us in it.



Laura Hilliger
2009
Attendee

Meag Doherty
2017
Attendee

Meeting my online friends from Open Heroines in real life. As a global online community, we often plan informal in-person gatherings around events like MozFest. Having a built-in community upon arrival to an international gathering is forever ingrained in my heart.

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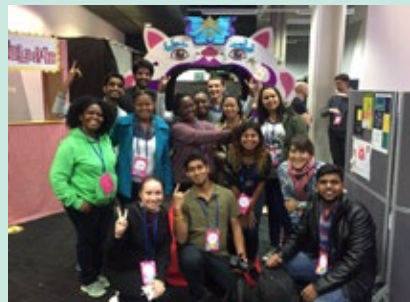
The first MozFest, the Drumbeat Festival, changed how I saw the world of technology. I was inspired, engaged, utterly blown away by the community Mozilla had gathered. I started walking an intentional path of openness, inclusivity, and equity. Being in Barcelona changed my career.

Geraldo Barros
2016
Attendee

My first connection to Mozilla's web literacy leaders is my best memory here. In 2016 all these leaders met in person to discuss our local differences and challenges in teaching the Web to our communities. It was an important time for everyone to embrace and get connected.

Aubrie Johnson
2018
Facilitator

MozFest is like Burning Man for internet activism; last year I met over a hundred people focused on ending gender bias in their fields, and dozens who were willing to journal about data privacy with me. You can find your niche, no matter how small you think it is.



KIM WILKENS

<https://storyengine.io/kim-wilkens/>

"I feel like Mozilla values a variety of opinions and a variety of people with different backgrounds – and that's valuable to me."

"I like knowing that I'm part of this movement about the open web and inclusiveness and things like that. It's a very nice thing to know that I have a community that I can fall back on when the chips are down."

"wrangling a team and coming up with this vision in Berlin – to address the fears a lot of educators and students face when we're talking about technology, the web, or coding. Our idea was to bring in a funhouse element so people can face their fears – to know that even if something is scary at first, it can be a lot of fun. That idea seemed to really come off very well, so that was really cool to see."

SU ADAMS

<https://storyengine.io/su-adams/>

"The MozFest opportunity – being involved in organizing – has been hugely beneficial. In particular, I've gained some great skills around collaborative working, planning and received some feedback."

DAVID ROSS

<https://storyengine.io/david-ross/>

"In the last three years since I've been involved in Mozfest, giving back so much of my time, running up and down these stairs, and that kind of thing. I've also been making sure I get stuff that comes out of it to enable me. I just discovered that this week something's shifted in me. It's been amazing."

STORY ENGINE QUOTES

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GEORGIA BULLEN

<https://storyengine.io/georgia-bullen/>

"That's one of the things that I really like about what can happen as part of the Mozilla community – it's so broad and intersects with education, libraries, science, and journalism. You have people coming together around very intersectional issues with a similar idea of that people can work on this and can make change themselves. It's a very individual agency-driven environment."

JANET CHAPMAN

<https://storyengine.io/janet-chapman/>

"There is no hierarchy at MozFest. Anyone would talk to you."

HARRY SMITH

<https://storyengine.io/harry-smith/>

"The open web has helped me meet people who are actually interested in those things, and it's helped me meet all of the amazing people I've met at MozFest, all of the really great people who I consistently come back to meet again."

You work with the people who arrange these bands and the people who are entrusted in that particular style of music or that particular interest. You help them create a group and create a space in which they can explore those."

N
PopcornJS

by Ben Moskowitz; Bobby Richter;
Open Video Community

Transforming Education With Open Badges

by Tim Riches, Founding Director Digitalme, Open Badges Consultant;
Mark Leuba, Vice-President, IMS Global Learning Consortium;
Laurie Cooke, Student

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The year is 2014, and a global phenomenon is emerging. Educators from Yorkshire to California are testing ‘Open Badges’, a brand-new means of capturing and expanding achievements made on a local scale onto the world wide web. From working with young people to veterans, from coding to cookery, these educators ignite a passion for learning, leading to personal developments in curiosity and problem-solving, both easily applicable in other real-world scenarios. Unfortunately, this type of inspired learning is often overlooked by the education system.

It is generally agreed that the old model, where schools and universities have sole responsibility for learning, is outdated and slow to change. This system, on average, fails 30% of learners across countries in the Organisation for Economic Co-operation and Development (OECD), who leave with no qualifications for life after education. This can lead to a collapse in self-esteem and talented people are easily overlooked.

So how can we move towards a situation where education offered online and in new, informal settings is placed on equal footing with institutional learning? After all, creativity, problem solving, and the ability to learn and relearn are precisely the skills we need to thrive in an unpredictable job market.

Rewind to 2012 and Mozilla launches Open Badges at MozFest.

Open Badges are visual representations of a person’s learning or experience, designed to be shared on social media and online CVs for maximum visibility and recognition. They are awarded to individuals and signify achievements, from completing a code club project to attaining a formal qualification. Each digital badge is packed with data, providing context about the achievement – who did something, evidence of what they did, and who says they did it, all of which can be digitally verified in real-time.

These new digital credentials are the result of a collaboration between Mozilla and MacArthur Foundation, who saw the opportunity to harness the power of the internet to give individuals, employers, and educators a new common language to communicate skills across the web in any given setting. MozFest was the perfect place to launch this initiative.

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Like email, Open Badges is a freely available internet Open Standard. And like email, it enables data to be sent, received, and understood between different technology vendors, even between competitors. With a single standard, people can create and communicate a rich portfolio

of achievements from across multiple online, formal, and informal settings.

Educators now had a new, easily accessible tool to recognise learning in any setting. Open Badges made significant progress within two years. The recognition granted through the project enabled new-found confidence for learners and helped people tell the story of their learning.

Research on effective badge design was published in ‘Promising Practices of Open Credentials’ by Sheryl L. Grant and learning providers began using credentials to demonstrate the impact of their programmes. Although the project had a positive impact within organisations, learners wanted to know how they could use their credentials beyond education to build their own enterprise or access job opportunities.

So while Open Badges showed the potential to deliver global societal benefits, employers, educators, and platforms would all need to embrace the standard. The ‘badge ecosystem’ was supplying badges, and it now needed to generate demand for them. Only then could individuals use them as currency to unlock opportunities for work or further learning.

A stalemate had arisen. Learners and educators wanted proof that employers would recognise badges, whereas employers needed proof that educators would issue badges. Platforms and governments wanted to know whether Open Badges would become the global standard for sharing skills across the web before committing. In short, only once the whole system became connected could learners’ genuinely benefit from opportunities outside of their organisation.

MozFest provided Open Badges with the platform to widen its community base. The festival is like a pop-up

city, embodying the values of interest-led, hands-on learning where everyone is invited to join in. Each year we asked new stakeholders to see badges in action at MozFest, to design the future of the standard and share lessons learned. The enthusiasm proved infectious. Over three years, the community of partners grew from a handful of passionate innovators to a network of 120 stakeholders in the U.K. expanding from grass-roots organisations to include major employers and universities.

Towards a tipping point

Fast forward to 2019: The number of badges issued has increased from 300,000 in 2014 to over 24,100,000. Business, as well as education, is embracing badges and the sector's technology is reaching maturity. These factors could be starting to generate a network effect.

A snapshot of badges in business and education:

- *IBM* discovered recognising employee's skills helps them develop home-grown talent – 87% of which report feeling more engaged with IBM and more motivated to learn. Their 350,000 badge earners also generated 200M social media impressions through people sharing their credentials on LinkedIn and other websites. They now aim to develop a more diverse workforce by giving badge earners of any age access to new, more inclusive routes into working at IBM.
- *City and Guilds*, the 150-year-old U.K. awarding organisation accrediting 2 million qualifications a year has begun issuing qualifications as Open Badges. Kirstie Donnelly, the U.K. Managing Director, predicts the future of qualifications will be increasingly modular and more responsive to the needs of individuals and organisations operating in a fast-paced market. They plan to issue qualifications at scale 2020.
- *The Open University's* U.K. OpenLearn platform,

with a community of 8.5 million learners, issues Open Badges for its free online courses. For the University's 50th birthday, it released its 50th free badged course which now covers a range of University's curriculum topics. Undergraduates now study a badged induction course linked to students formal record, fully embedding badges into the University process.

- *Southern New Hampshire University* (SNHU) in the U.S. has introduced job-ready skills training with LRNG, an innovative digital badges platform. Their scheme, which attracts college credit, targets underserved high school populations, offering new pathways to college and careers.
- *Digital Promise* is enhancing the career prospects of teaching professional by awarding 'micro-credentials' for in-work and online learning. These add up to official Continuing Education Credit accepted across 30 states in the U.S.
- *The IMS Global Learning Consortium* in 2016 led to new open source practices and enhancements to Open Badges, such as 'endorsements,' where third parties can digitally back badges as evidence in support of an awarded achievement.
- *The introduction of 'Badge Connect'* in 2019 will give people the freedom to share their badge data with web sites of their choice. This development sets the scene for a new wave of innovation. With badge data recruitment sites could present personalised jobs results. Massive Open Online Courses (MOOCs) could tailor course suggestions. Collaboration platforms could even intelligently form teams of people to deliver a project with their collective skills. Contributions from Nate Otto (Badgr/Concentric Sky, Alex Hiprak (Credly), Justin Pitcher (Campus Labs) and other members of the IMS project group have made this new innovation possible.
- *Governments* who are increasingly digitising their services are exploring how badges could provide a new

way to communicate skills and increase productivity on a national scale. Matthew Taylor, Chief Executive of the RSA's 'Good Work Report' commissioned by the UK Government, is an early sign that governments are starting to pay attention to the standard.

Business and education now have high-profile case studies which articulate the benefits badges can bring to similar organisations. These proof-points create the conditions for initiatives like the UK Cities of Learning programme which is attempting to use badges to develop new pathways to learning and career opportunities where people live. Having high profile case studies to point towards helps to establish the partnerships to make these pathways a reality.

Seven years after the launch of Open Badges at MozFest, we are moving ever closer to being able to say that digital recognition will truly count, helping people to unlock ambitions both in life and in work. Right from the word go, values of equity, social mobility, and openness have been baked into the Open Badges movement. These values are still at play in many Open Badge programmes delivered by major corporations, universities, and grassroots organisations alike. Though such organisations have different drivers, they share a common belief, a common purpose: we should afford people the recognition they deserve, we should provide more opportunities and routes into education and employment. We should provide chances for individuals to master new skills, and open up fairer routes into and throughout peoples' careers. Now that we have adoption from employers, education and grassroots organisations, the next task is to join the dots and connect learners with the opportunities they requested from us in 2014 by developing new initiatives to help them reach their goals.

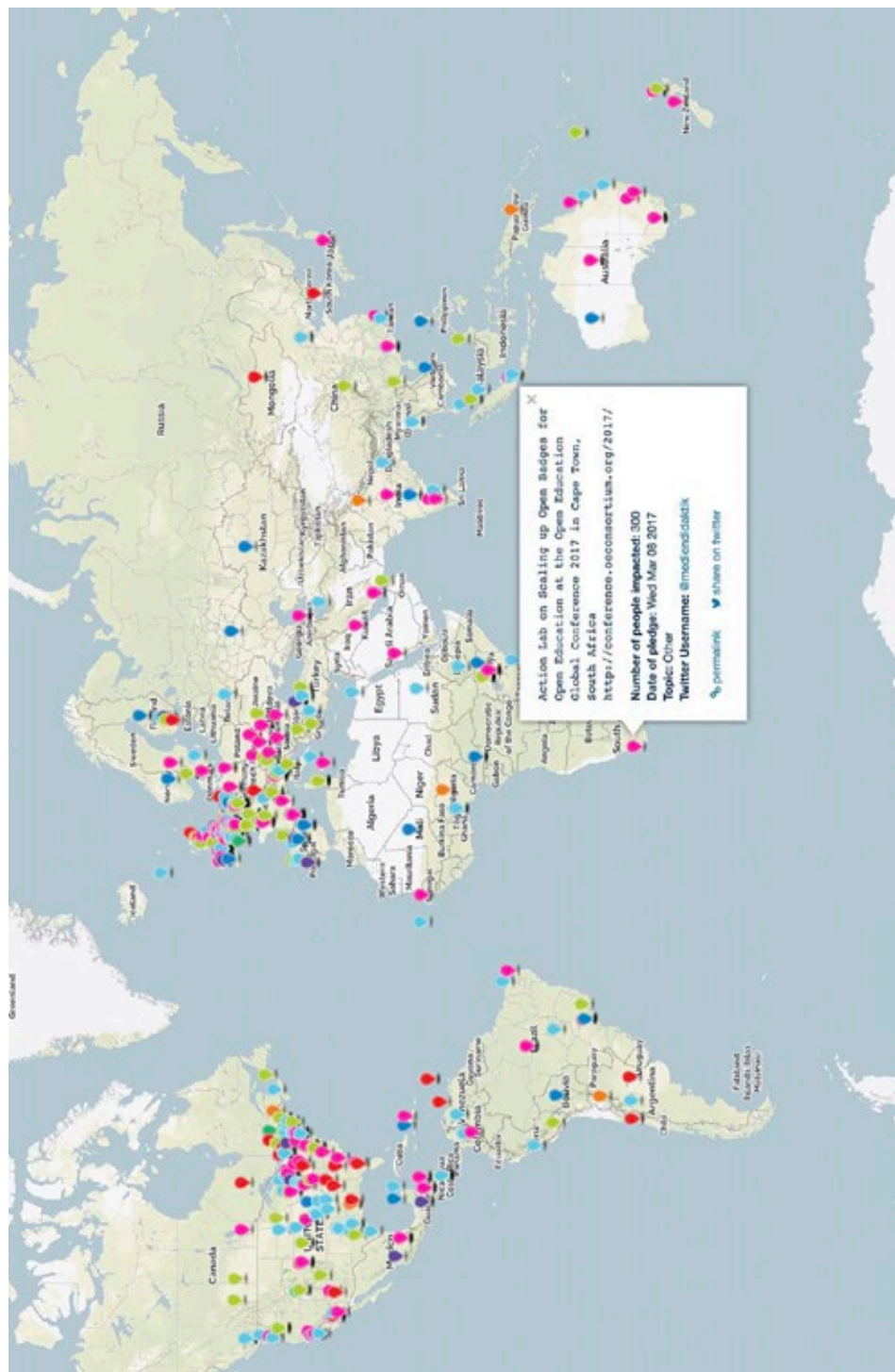


Image Credit:
Badgetheworld.org

ORGANISATIONS FROM ALL OVER THE
WORLD PIN THEIR BADGE ACTIVITY.



A. Focus On The People, Then The Event – Allen Gunn	119
B. The MozFest Program: Shared By Design – Sarah Allen, Erika Drushka	131

MozFest was forged by the event design and facilitation principles of Aspiration's Allen "Gunner" Gunn. His guidelines for creating participatory events provided a blueprint and complemented our open ethos for the festival.

Through his mentorship, we attempted to grow and replicate his model, originally conceived for 10-250 participants, and scale it to 2000 participants. We introduced a new facilitation layer, inviting Wranglers to effectively co-design and host participatory, themed Spaces within the festival. These volunteer Wranglers recruit, curate, and support hundreds of Facilitators who are designing sessions for thousands of festival participants. This, in turn, results in a sense of shared ownership of the festival.

It's a testament to the resilience of Gunner's model, and to Michelle Thorne's thoughtful implementation, that the festival's federated design could incorporate this new model of facilitation to accommodate growth while still maintaining such highly interactive and self-determined experiences.

We felt it was important to first introduce Gunner's principles to highlight the foundational design principles of how we create MozFest, then share how we build upon them to share ownership of the festival with our network, as part of this evolutionary model.

Focus On The People, Then The Event

Part of the essay, *Creating Participatory Events*, by Allen Gunn of Aspiration, and one of the Founding MozFest Organisers. Written for The Shuttleworth Foundation in 2008.

What Is the Problem, and What Is the Opportunity?

Live, in-person convenings still hold a unique and essential place in the knitted fabric of community and collaboration. The trust and familiarity engendered by face-to-face time are unique and lasting, more visceral and immediate; relationships forged or strengthened in person are cut from a fundamentally different cloth than those existing exclusively online.

But given their unique potential for connecting like minds and catalysing relationships, live events are frequently non-collaborative affairs, employing dichotomous formats such as keynotes, slideware presentations, and panels to let one or several speakers relate across a veritable moat to silent and largely passive audiences.

“Expertness” is rewarded with control over submissive listeners, rather than placed in a position to more interactively address and service the needs of participants. Chat rooms and other participant back channels further dissipate the live energy, as attendees focus on glowing laptop screens and the time-honoured art of multitasking. Surprise and serendipity are often lacking in such sessions, more often taking place in the hallways between workshops.

“Participatory events” refer to gatherings where many of the above norms are inverted, with the aim to maximize participant interaction during sessions and drive richer, more sustainable event outcomes.

The distinction between “participant” and “speaker” or “expert” is thoroughly blurred, with focus placed on peer-to-peer knowledge sharing instead of large group listening.

...Live events are frequently non-collaborative affairs, employing dichotomous formats such as keynotes, slideware presentations, and panels to let one or several speakers relate across a veritable moat to silent and largely passive audiences.

The underlying philosophy that drives such events centres on an alternate vision of how community and capacity building occur.

Participatory event organizing is founded on the premise that fully-engaged, fully-present participants catalyse stronger, more sustainable post-event collaboration and relationships.

Traditional events generally employ didactic formats that mirror scholastic experiences; teacher/class differentials are the norm and session formats too often take a one size fits all approach to audience needs and interests. Part of the value in participatory events lies in parallelism, as smaller groups of participants do focused peer transfer of knowledge, ideas, and issues. Such sessions provide opportunities to identify and discuss shared needs, and engender motivation to pay attention.

Participatory event organizing is founded on the premise that fully-engaged, fully-present participants catalyse stronger, more sustainable post-event collaboration and relationships. Given “control of their destiny”, attendees steer session content directly at their needs and passions. A guiding truth in participatory events is that organizers don't always know what will come out the other side, other than strengthened communities of practice. In this new era of distributed collaboration, in-person events are costly and time-intensive when compared to various forms of online meetings.

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But the benefits of live convening can be powerful and generate long-lasting return on investment at key points in the evolution of a project or community. At times when identity and vision are being forged, when trust relationships are being catalysed to sustain ongoing cooperation, there is no substitute for face-to-face collaboration and socializing.

What Does It Take to Make an Event Participatory?

There is an often-followed sequence of steps in creating a successful participatory event:

Cast a vision: Identify event goals and outcomes that will tap the passion and needs of participants; work over time to “tease out the mandate” from the target audience.

Spread the word: Reach out to prospective participants, communicating the event vision and evolving it based on their feedback. A fundamental question to pose in shaping a collaborative event is “what will make it worth your time to be there?”

Share ownership of the event: Create pre-event opportunities for participants to communicate with each other and collectively build the agenda. Give public credit to contributors early and often.

Find Facilitators in the group: Identify participants with an inclination towards facilitation and supporting their peers; this is often communicated through strong sharing ethics. Ideally all participants will have some facilitative responsibility during the event, but approximately 20% of the group will need to be encouraged to take facilitation leadership. Engage each Facilitator in shaping specific parts of the agenda and goals.

Convene the gathering: bring participants together in time and space, taking care to review and stay focused on event goals while conveying a fun and festive tone. Get everyone's voice active in the dialogue as quickly as possible, and let those voices guide the course of the event. Balance structured and unstructured time, and use intuition in equal measure with timekeeping to pace the proceedings.

Evolve the agenda: Listen to participant feedback on how the event is meeting their needs, and reflect those inputs as much as possible in enhancing, pruning, and resequencing discussions.

Aim for coherent closure: Through the course of the event, track progress against desired outcomes and work to refine goals based on that progress, steering towards demonstrable milestones and follow-up plans by the end of the in-person meeting.

Facilitate follow-up: collaborative live events can catalyze plans for projects and follow-up, but post-event reality often intervenes in the form of overflowing in boxes and other externalities. Using mailing lists and other online venues to narrate post-event progress while inviting others to share outcomes can sustain the group ethos and collaboration.

Organizing a Participant-Driven, Collaborative Event

Successful realization of participant-driven events comes down to striking the balance between yielding substantial control of proceedings while maintaining quality of experience for all participants. Traditional event organizers feel the imperative and burden to deliver quality to attendees, rather than letting it emerge from within the participant community. Agendas are carefully choreographed streams of key-notes, panels, and presentations delivered to identically match the pre-published agenda, and the role of most participants is minimal and passive.

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Build From a Solid But Flexible Frame

Agendas for participant-driven events function more like scaffolding than script; they provide structure onto which participants can attach their ideas, interests and goals before and during the event. These agendas start from a narrative of goals; for a three-day event, the initial narrative can be as simple as:

- Successful facilitation of such events involves understanding participant motivations and focusing energy and priority on those that are constructive.
- A simple but useful generalization is to model participant behaviour in terms of “community instincts” versus “control instincts”.
- Some participants intrinsically want to serve the best interests of the group, trying to let all voices be heard and keeping the dialogue on track towards stated goals; others have a vested interest in advancing an agenda or steering conversations to their own end. By letting individuals with community-building motivations facilitate discussions, and discouraging control-oriented behaviour both explicitly and implicitly, a comfortable and collaborative ethos emerges.

Subvert the Status-Quo.

Another core trait of participatory events involves upsetting physical and spatial norms: when put in unfamiliar contexts participants pay more attention and are more invested in the proceedings. Two very different aspects in this regard are the physical layout of meeting spaces, and the role of “expertise” in the proceedings. In traditional conferences, room layouts usually “face the front”, with rows of chairs and possibly, tables.

Seating participants in circles provides substantial enhancement of experience; participants all face each other as they speak, increasing the transfer of human energy. With regard to expertise, the fundamental shift is from celebration of expertise to employment of experience and wisdom.

“Experts” and “stars” who sit on panels and deliver keynotes usually play out rote roles, re-employing slideware decks and speaking at, not with, audience participants; they stand apart from the rest of the room.

“Experts” and “stars” who sit on panels and deliver keynotes usually play out rote roles, re-employing slideware decks and speaking at, not with, audience participants; they stand apart from the rest of the room.

In participatory formats, these experts are shifted from speakers to listeners, encouraged to focus on what other participants are seeking to learn or achieve, and to talk primarily in response to questions and in an effort to grow

the understanding and capacity of the group. A beautiful consequence of this model is that the “experts” often enjoy substantial new learnings as they articulate their knowledge and experience in new and creative fashions.

It is important to note that some participants will feel uncomfortable in these unfamiliar settings. Sitting in circular arrangements, not able to hide behind laptops, divorced from conventional “expertise hierarchies” and unsure of what comes next. This is best done by acknowledging the newness of the process, explaining how the agenda will play out, and strongly encouraging questions and inviting concerns to be shared at anytime. Encourage trust in the process. Often the most sceptical and initially disoriented participants can be converted into the most passionate contributors with proper support and guidance.

Interact on Planes of Peer Respect and Equality

Letting participants actively drive the agenda requires establishing a fundamental set of expectations and guidelines to encourage co-equal behaviour. At the heart of such guidelines are three tenets of peer interaction: respect, listening, and inclusion.

Respect manifests in several forms: not speaking while others are speaking, honouring the schedule of the event so that collaboration flows smoothly, and acknowledging the diverse backgrounds and needs of other participants.

Active listening is the art of hearing and comprehending what others are trying to say and realize, rather than waiting impatiently for a turn to speak.

Active listening is the art of hearing and comprehending what others are trying to say and realize, rather than waiting impatiently for a turn to speak. And inclusion is both about seeing that all participants get to speak and weigh in, while making sure that the language of the discourse is accessible to all and that questions are encouraged and honoured.

A critical expectation to convey is that all participants must participate full-time; individuals who “parachute in” part-time, or take a session off to do “real work”, undermine the collaborative momentum and co-equal ethic.

Guide Rather than Direct

Group facilitation in participatory gatherings is the art of doing less. Success is indicated by drawing out collective energy when participants meet as a large group, and then providing guidance to establish small, focused groups of collaboration and interaction where participants drive. Three essential threads of responsibility underpin such facilitation: sustaining the narrative of the event, capturing proceedings, and tracking the mood and behaviour of participants.

Narrative is required on complementary levels: first to track the overall arc of the agenda, and correlate it to progress against stated goals whenever the group meets as a whole,

and second to make sure outcomes from each small-group session are reported back to the larger group so that an overall sense of community awareness is maintained. Because session content is not pre-authored, note-taking and capture of session outcomes takes on heightened importance, and assuring conversations are recorded and saved is an ongoing challenge.

Three essential threads of responsibility underpin such facilitation: sustaining the narrative of the event, capturing proceedings, and tracking the mood and behaviour of participants.

Mood-watching is both about sensing the overall group tone — and adapting the pace and focus of the event accordingly — while also identifying individuals who are working against the event goals by failing to respect participant guidelines.

Thus the role of lead Facilitators in a participatory event is to monitor and shape the group energy, guiding the agenda flow by applying small but tactical interventions where they are needed, while also making sure that documentation processes are followed.

Follow the Emergent Leaders

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In each participatory event, a subset of participants quickly and steadily emerge as committed to seeing the format and the convening succeed. These are individuals who understand the community dynamics in play, and strive to see the needs of fellow participants served. This can be through offering to facilitate sessions that have been requested, by mediating and de-escalating disagreements and tensions, or by communicating to event organizers concerns or feedback they have observed. Put in the vernacular, these emergent leaders are the participants who most readily and passionately “bring the love” to the group as a whole. They are leaders in the cohort by example.

These Facilitators form an essential middle level in the event structure, helping event organizers to realize their goals by addressing the needs of participants. They become the eyes and ears of the event, listening to feedback, tracking the mood in their small groups, and helping to propagate awareness of interpersonal dynamics that are shaping the tone and outcomes of the gathering.

Keep Things Cosy, Comfortable and Well-Fuelled

Breaks should be frequent and not short, both to allow freestyle interactions, and to let participants check in with external realities so they can turn full attention to subsequent sessions.

Not to be overlooked in participatory events is the essential nature of “little logistics”.

Meeting rooms should be well-lit and comfortable, with adequate space for participants to sit in a single large circle, and good sound dynamics to assure that even the most soft-spoken individuals are heard.

Proper name tags that emphasize first names and de-emphasize last names, titles and affiliations are a powerful lubricant for ad-hoc interactions. And food sourcing is critical: good food (with particular care to individual dietary needs) leads to productive moods, and an ongoing supply of beverages that includes a bottomless pot of coffee keeps people fuelled, hydrated, and ready to fully focus on the proceedings. Breaks should be frequent and not short, both to allow freestyle interactions, and to let participants check in with external realities so they can turn full attention to subsequent sessions.

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What Can Go Wrong?

While participatory events can yield a bounty of substantial and serendipitous outcomes, the model is not without risk. Operating in an environment of less structure and more real-time improvisation, there is always the potential for things to go less than well.

Perhaps the greatest risk to successful event delivery is the establishment of poorly-defined or overly ambitious goals for the convening; participatory agendas are designed to achieve stated outcomes, and poorly conceived goals lead to fragmented and frustrating agendas. Event goals should be concrete and phrased in language accessible to all participants; desired outcomes should be achievable in the time frame of the event, and should avoid being couched in “vision” terms. For example, declaring the goal of an event to be “Ending World Hunger” is no goal at all, it is a vision in which an event could potentially have a role, but offers little or nothing in terms of how the event might actually play out. But phrasing an event goal as “Each participant should leave with concrete ideas and action items on how they can



have a positive impact on the world hunger situation” is more concrete, more believable, and certainly more achievable.

A second critical risk factor is over facilitation. Participatory events succeed by letting participants collaborate; if Facilitators spend too much time talking, or prioritize process over productivity, the group experience suffers. Too often, event organizers feel pressure to deliver an experience, but participatory events thrive when participants create their own experiences within a well-defined framework of participation. A specific challenge lies in not rushing the schedule; collaboration evolves along its own timeline, and Facilitators who rush participants in order to track to stated agenda time slots undermine the effectiveness of the sessions themselves. Event organizers and Facilitators should trust the process, and position themselves to be effective through understated but attentive support of the participants' needs.

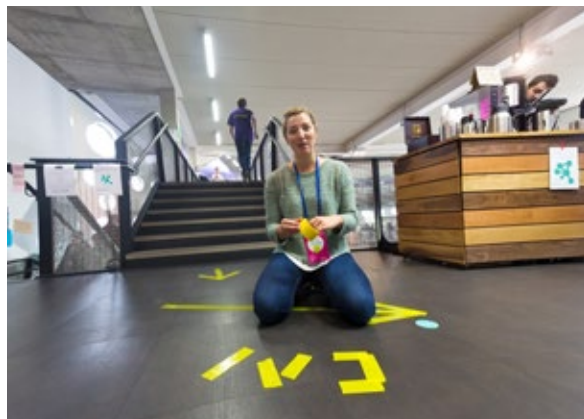
Another critical ingredient in participatory events is a strong cadre of experienced Facilitators. While participants should be free to collaborate as they desire, leadership is still required to keep conversations and collaborations coherent and tracking towards goals. Knowing who these Facilitators are before the event starts, and melding their efforts with those of the “emergent leaders” discussed above, yields an optimal “middle layer” of facilitative support and guidance.

Perhaps the hardest risk to model for is the presence of “problem participants”. Participatory events are predicated on ethics of peer sharing and co-equality, but there will always be those inattendance who do not embrace such principles, and who seek to steer the circumstances to their own ends.

Trust your judgement
in the moment, and
make decisions
based on sustaining a
friendly, collaborative
environment.

In the End, Trust Your Judgement

All the above are guidelines to be utilized and applied in response to specific event conditions and desired outcomes. Participatory event design and facilitation is about using less to achieve more: believing in the power of simple dialogue and sharing, while taking care to assure that such interactions hold together along a coherent and well-managed agenda. Trust your judgement in the moment, and make decisions based on sustaining a friendly, collaborative environment.



The MozFest Program: Shared By Design

Written by
Sarah Allen and
Erika Drushka

Crowd-sourcing a team

Each January, our MozFest journey begins with a question to our network: who should help us design this year's festival? We ask staff, former Wranglers, partners, and allies to raise up members of their communities who are doing inspiring work. These might be technologists or artists, policy-makers or educators; we are open to anyone advancing the principles of a safe, open, and accessible web. We look for Facilitators from previous MozFests, and from other events, who led great sessions or have indicated a drive to be more involved, but we seek out new faces, too – folks we've never met, who may have never heard of the festival and will challenge our approach.

We look for Facilitators from previous MozFests, and from other events, who led great sessions or have indicated a drive to be more involved, but we seek out new faces, too – folks we've never met, who may have never heard of the festival and will challenge our approach.

At the end of this nomination process, we'll have a list of 100+ strong candidates that we review through a number of lenses. Though every year's team of co-designers is a different blend of people, we strive for variety in diversity of expertise, geographic location, gender identity, language, and culture. We aim for a mix of Staff and community members, with an emphasis on the latter.

With a shortlist in hand, we send out invitations. Our ask is a big one, and we try to make that clear from the start: we are looking for volunteers to commit to five months of designing the festival with us, culminating in hosting and supporting session Facilitators at MozFest and MozFest House. Those who accept are invited to convene in late spring to participate in the first major convening to kick off the design stage: MozRetreat.

Handing over the keys

Held in a different city each year, MozRetreat is a critical step in the development of the annual program. Thoughtful consideration goes into choosing host locations for the retreat. We ask ourselves what is the bigger story we're trying to tell, and how these places can help us tell this story, historically and culturally. MozRetreats have been held in a tiny coastal fishing village in Scotland, and in Tallinn, Berlin, Eindhoven, and Barcelona.

We ask ourselves what is the bigger story we're trying to tell, and how these places can help us tell this story, historically and culturally.

The retreat has three stages: grounding participants in the history of MozFest and the current state of the web; collaboratively deciding where to make changes, additions, and improvements; committing to doing the required work and mapping out the practical steps needed to achieve our goals.

In the grounding stage, we present Mozilla's focus in relation to timely opportunities and challenges facing the web, as well as the overarching frame or theme for that year's festival programming. Since some retreat participants know very little about the festival before they arrive, it's important that we share some context. To do this, we celebrate prior achievements of the festival and acknowledge the hard work of others not in the room. And of course, the best part of this initial phase is bonding with one another. MozRetreat is the only time that this group will be together in person until the week of the festival. After the event, everyone will return to their different corners of the globe and subsequent connections happen via video and conference calls, so it's vital that trusting relationships are forged.

Stage two of the retreat is about defining the evolution of MozFest by acknowledging parts of the event that are stale and could use revamping, or that represent exciting new territory we've never approached. We ask participants to define where they see their own work fitting in, what they are passionate about working on, and who else should be part of the conversation. It is here that roles begin to take shape, and the individuals who will lead the festival's Spaces and experiences emerge: these are the MozFest Wranglers.

Wranglers have a deep history and play a critical role. They design and host the Spaces, experiences, and connections

within the festival where others can participate and thrive. It is at the Wrangler level that the co-ownership of MozFest exists most profoundly. At MozRetreat, we give Wranglers driving lessons, then hand them the keys to the car.

Not everyone at the retreat chooses to become a Wrangler and there are many other ways one can contribute to MozFest's design and delivery. The agenda gives space and opportunity so folks can change their minds, move around programmatically, form teams, and bring other ideas to the table. If Wrangler teams are not gelling, we step in to help. If someone becomes lost in the swirl of ideas, we guide them to find a focus that feels right.

The final stage of MozRetreat is about making commitments to do the work required and clarifying next steps, like writing the call for proposals. Co-designing a participatory festival is no small task. Combined, the team will dedicate thousands of volunteer hours so it's critical that the work is distributed as evenly as possible, and that everyone has an opportunity to contribute. This is where the festival production team brings more structure to the process by setting milestones for the curation of sessions, the allocation of travel stipends, and the physical design of festival Spaces and experiences. We outline how the work in these areas is coordinated across various roles, what we expect of the Wranglers, and how we support them in return.

We trust these Wranglers to create something personal that is also an accessible, engaging inroad for MozFest attendees to contribute to a healthy web that matters in their communities.

MozRetreat is an exhilarating, empowering, and highly productive week. It is a key moment in the co-ownership and co-design of the festival: we present a desired outcome and hand the reins to this group to design how we get there. We trust these Wranglers to create something personal that is also an accessible, engaging inroad for MozFest attendees to contribute to a healthy web that matters in their communities.

Planning across time zones

Post-retreat, Wranglers work together in teams to curate proposals, support Facilitators, design the Space, and schedule the sessions. With many moving pieces to coordinate, we convene in a weekly call, an important

mechanism to stay connected, share design updates, raise issues, request peer assists, and ask questions. Documentation is important here, and we capture notes in a central document, record calls for viewing at a later time, and send update emails and task lists that explain the procedures.

During the months between the retreat and the festival, the production team governs the federated design process and keeps the work moving to meet the deadlines necessary to produce the festival. Access to our team is paramount, whether at the end of Wrangler calls, in smaller groups, or 1:1. We regularly ask for input on our process and iterate as necessary according to the feedback.

On-site

Wranglers will spend five months preparing for MozFest. It is their vision and their creativity that brings life to Ravensbourne University once the festival weekend arrives. It is their support and guidance that allows the hundreds of Session Facilitators to successfully engage participants. By creating an accessible environment where people of all types can collaborate and flourish, Wranglers nurture a vibrant, welcoming atmosphere.

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In many ways, the Spaces that Wranglers design function as mini-festivals. Within each Space, participants can find everything they need: sessions, inspiring talks, art installations, and community. Multiple activities are scheduled at any one time so that even within a Space, attendees can choose their own adventure. MozFest and Ravensbourne are the scaffolding that contain and connect these Spaces.

During the festival weekend, the focus of the production team is to ensure the frame of the event holds and that the Wranglers are fully supported. We are fully present throughout the building to manage issues that arise – technical or human. If our job is done right, people will wonder what we ever did.

Post-festival, the Wrangler feedback meeting is one of the most important moments in the annual MozFest cycle. It represents a celebratory closing of the current year, offers critical space for reflection, and sets the stage for the next



festival. It is a face-to-face, tired but honest conversation about what worked in our design that we should replicate, who emerged as exceptional participants that we might reach out to for deeper engagement moving forward, and, operationally, what challenges or pitfalls to avoid or solve for in the next year. The outputs from this conversation directly shape our thoughts in the spring, when festival planning begins anew.

The Co-Drivers

When we think of MozFest's federated design, Wranglers are undoubtedly a critical piece of the puzzle. Equally important are Facilitators – the hosts of the hundreds of individual sessions, experiences, and interactions that attendees engage with over the weekend. Much as the production team supports the Wranglers, the Wranglers support the Facilitators.

Facilitators enter the MozFest journey through the call for proposals. This open request for Sessions is launched each year in July and thousands of people from around the world respond. Expectations are stated clearly in the open call: all Sessions must be collaborative and generative, with a pre-planned way to continue the work post festival. Straightforward presentations are discouraged, unless Facilitators are asking attendees to openly collaborate on their work.

Once the call for proposals closes and Wranglers have completed their curation, we typically end up with more than 500 individual Facilitators. Wranglers manage the Facilitator relationship by sending emails, hosting open calls, and providing 1:1 guidance as needed. Oftentimes, veteran Facilitators are invited to share their experience and advice.

Federated Design in action

Again, documentation plays an important role in setting up Facilitators to succeed as festival co-owners. We wrote a Facilitator Handbook to help newbies navigate the very

Expectations are stated clearly in the open call: all sessions must be collaborative and generative, with a pre-planned way to continue the work post festival.

unique MozFest experience, and to guide everyone in the planning and delivery of a great Session. It shares many practical details like where nursing mothers can feed their infants, what dietary restrictions we can accommodate, and the location of the prayer room.

We also host a half-day Facilitator Orientation on the Friday of the festival weekend. The central goal of this mandatory convening is to establish an ethos of shared ownership of the festival across the diverse range of Wranglers and Facilitators present, and to invite each and every one of them to see themselves as ambassadors of MozFest and the community, spreading goodwill while remaining cognizant of anything that limits others' ability to enjoy the event.

Facilitators are encouraged to provide feedback directly to their Wranglers, and also to production Staff. With 500+ Facilitators, this generates a fantastic range of responses that guide the program design the following year.

Arrive with an idea, leave with a community

When discussing shared ownership of MozFest, we cannot forget the participants. Our invitation is an explicit call to shape the future of the web and attendees arrive ready to share ideas and get their hands dirty – whether that means writing code, designing games, teaching others, or any of the countless ways to connect and collaborate.

Our invitation is an explicit call to shape the future of the web and attendees arrive ready to share ideas and get their hands dirty – whether that means writing code, designing games, teaching others, or any of the countless ways to connect and collaborate.

With more than 600 activities taking place over the festival weekend, participants cannot possibly attend every Session, visit every interaction, or take in every talk. Immediately following the opening plenary, attendees disperse to all corners of the building, a highly personal migration that invites each individual person to design their own journey and set their own pace. Those who dash from Session to Session, committed to seeing as much as humanly possible, create a playful, frenetic energy, while those who settle

in to long conversations in Ravensbourne's many cozy corners remind us that serendipitous connections are one of the festival's greatest rewards.

A third of our participants are also Facilitators who are hosting their own activity as some point during the weekend, meaning a huge portion of the audience are bringing their expertise and support to others' sessions. The continuous exchange of knowledge between attendees – demonstrated in acts of kindness and empathy – underpins MozFest's most enduring tagline:

Arrive with an idea, leave with a community.

We have created multiple pathways for participants to grow into Facilitators and later into Wranglers. Our aim is to encourage deeper participation year upon year, not only in the festival but in the internet health movement, and allow attendees to invest in co-ownership of MozFest at a pace that reflects their own personal growth.

Lasting impacts

Meeting in person is an essential element of sustaining a community, and MozFest is the gathering place for those dedicated to creating a better, healthier internet. The web is made strong by the contributions of many, and the same can be said of the festival. Inviting people to personally invest in the ownership of MozFest has allowed us to expand the festival in ways we never imagined. More voices, more passion, and more participation have fueled the movement and built capacity to scale the event, not just in size, but in creative scope. MozFest has expanded ideas, seeded long-term, cross-continental collaborations, and connected a global community through a shared experience.

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MozFest is one part of a much larger movement — a global community of coders, activists, researchers, and artists working to make the internet a healthier place.

We asked a handful of people we admire to talk about that movement, their role in it, and where they think it's going. The result?

Seven fascinating conversations between 14 fascinating people. In the following peer-to-peer interviews, you'll see an acclaimed filmmaker and media theorist discuss how to make technology more humane. You'll see a digital rights activist and environmental advocate swap ideas on movement building. You'll see a former Member of the European Parliament and a Hong Kong-based technology policy expert compare digital rights on their respective continents. You'll learn about the state of inclusive STEM education in Egypt and Ireland. And much more.

On Building Tech That Better Serves Humanity

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(photo: Rebecca Ashley)

From Tiffany
To Douglas

From Douglas
To Tiffany

Hello!

Hello — and gosh! It's been a long time since I wrote "Cyberia" and you founded The Webbys. Back then we both thought the best way to promote a healthy digital society was to celebrate those who were envisioning and engineering positive, pro-social futures. But around the time of the AOL-Time Warner merger, around 1999, it became clear to me — and I'm guessing to you, too — that the net was about to be more about the growth of capital than the growth of culture. As a result, we got the surveillance economy and the attention economy, which instead of helping people create value for themselves and each other, simply use tech to extract value from people and places.

Right about that time is when I wrote this weird little piece for Adbusters called “The Sabbath Revolt,” where I was arguing that people should adopt a “one-seventh rule.” One day each week, not just away from tech, but away from buying and selling. Taking a day off would help people recalibrate their nervous systems and their social priorities.

From Tiffany
To Douglas

It kind of fell on flat ears. But now with Day of Unplugging and your book “24/6” and Tristan Harris convincing tech companies to show us how much time we’re spending, I’m wondering: Is the amount of time we spend on our devices as important as how we’re spending time?

For the last 10 years, my family and I unplug completely from all screens for one day a week, which has been extremely profound. Since we started this practice, our society has become more and more screen-obsessed – and the Web has become more and more beastly, trying to manipulate in more ways.

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There was a moment when I founded the Webby Awards in 1996, where a lot of people got their hopes up for this open, decentralised system that everyone could contribute to. Then when it became centralised, the priorities changed and it was about sucking in all your time and monetising every moment of your life. So for me, the book is about a multi-pronged approach. One, you need a full day off the network once a week. Twenty-four hours is necessary to do the long-term thinking we’re not able to when we’re jacked into the network 24/7. You need the space to do the kind of thinking that drives culture forward.

Secondly, we need to change the models that are happening with the web. I don’t think it’s a mistake that there’s a reckoning in the gender movement and the tech movement at the same time. We need more diversity at every level of when we’re creating these tools.

So to answer your question: It's not just about disconnecting. You need time away – *real* time away. Not just a couple hours before bed, but a full day off every week to regain perspective and bigger picture thinking.

And we need more diversity in the creation, oversight and regulation of everything having to do with technology and the web. We need to revisit the original vision of the web. We have lost the beauty and the power of what a decentralised network can do.

From	Douglas
To	Tiffany

The thing I start wondering, though, is now that we're moving into the internet of things, the new Silicon Valley vision is for the web to go away, altogether. I'm wondering now if we're going to remember the good old days when the internet was when you went online?

From	Tiffany
To	Douglas

We're already complaining that our phones are always on, but that's nothing if your *house* is online. You know?

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I completely agree. But I still think we need to push back. I think that that's part of what we need to be protecting – the boundaries of our own existence. It isn't healthy to have a 24/7, completely-permeable society where there are no boundaries. One thing in terms of my family's weekly day off screens: We call it "Tech Shabbat," but in my mind it is not a religious practice. I am not a religious person. I want taking a "Tech Shabbat," a full day without screens a week, to be like yoga and meditation. The practice of taking a day off of the network of life and work is over 3,000 years old for a reason. This is just an updated version for our modern age, when everything has become 24/7.

From	Douglas
To	Tiffany

Right. The one-seventh rule. But then we've really got to figure it out. Let's say you have an advanced version of Nest – one of these digital thermostat-y things that's on the internet. As you're walking around in your house, you're delivering data to the networked thermostat,

which is then using it not just to govern your system, but to inform all these other parties about you.

From Tiffany
To Douglas

I guess we want a way for the internet of things to go local...

Let's think of some different business models. I keep thinking, what would you pay to *not* have your data sold? For a device like Alexa, but with constraints around it? There are versions of these things that don't have access to every aspect of your life all the time. They do have an off switch. I hope people are going to start to rise up and say, you know what, I don't feel comfortable that my data being sold in this black market and influencing elections. We need a different model.

From Douglas
To Tiffany

Not to stroke their ego, but that's why the original shareware / Mozilla / Mosaic model for internet development is so much more resilient. It's so much harder. If they treat the data that we're producing like a commons, rather than stuff that they've extracted, then we're not being exploited by our technologies anymore. We're all sharing in the benefits.

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From Tiffany
To Douglas

It becomes a healthier environment.

From Douglas
To Tiffany

If we started a model for technology that was a commons... God. If we put our medical data and our personal data into a big commons, it would disrupt the business model of all the corporations overnight. Their proprietary data would be worthless.

I feel like people don't have a handle on the consequences of "free." The free that's not *really* free. Once people have a better handle on that, I hope and think it will inspire new models that give people more control over what they're giving away. And, alternative models for a healthier web that returns to the commons and decentralisation.

From Douglas
To Tiffany

Yeah. It's the equivalent of people understanding the difference between the low prices of Walmart and the high cost of Walmart.

From Tiffany
To Douglas

I feel a big shift. I feel like it's top of everyone's mind right now. Or, they know they *should* be thinking about it. We need to be having a global conversation.

From Douglas
To Tiffany

Most of our technologies are designed to use us. If that's the relationship, of course it's going to make you feel drained and sad and sick. The original purpose of the economy was to help people create and exchange value. Now our economy is here just to extract people's value.

From Tiffany
To Douglas

This comes back to the original hopes for the web. We got so excited about the web in the early '90s with this potential to extend our ability to create and connect. But I never thought everyone's heads would be down all the time staring at their devices and it would keep people from being present with others right in front of them.

From Douglas
To Tiffany

It's interesting. When the visual web emerged, it felt like a slight step back from the possibility of the internet. It was flat and opaque and more like television. I had this worry: *This is going to be less about personal weirdness and expression, and a little bit more about conformity and what-can-I-sell.* Then individual webpages became MySpace, and then the cookie-cutter profiles of Facebook.

From Tiffany
To Douglas

Completely.

From Douglas
To Tiffany

But the terrific pro-human, pro-social qualities of these spaces can be retrieved before it's too late.

From Tiffany
To Douglas

Yeah. And to figure out how to make that happen, you need that day away every week to do some longer and bigger-term thinking. And it's about reconnecting with yourself and your family.

From Tiffany
To Douglas

Exactly.

From Douglas
To Tiffany

And it even makes you a better web developer and user.

On Digital Rights In Asia And Europe

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(photo: Diana Levine, CC-BY)

From Malavika
To Julia

Hi, Julia.

From Julia
To Malavika

Hi, Malavika.

Let's continue the conversation we started over email about the state of digital rights in Asia and Europe. Specifically, we were talking about the public sector delegating difficult internet regulation tasks – like counter-terrorism, intellectual property protection, or hate speech – to private actors.

There is some degree of consensus in the European policy space that there's a problem with law enforcement on social media. And in some respects, that even goes beyond

law enforcement. Like in the UK, you had these initiatives around so-called harmful speech that actually isn't illegal, but it's considered a problem anyway. Yet there is no consensus about what exactly should be done about it.

So, my impression is that the policy response is focusing on shifting the liability for illegal activities to the platforms, rather than the people who actually commit illegal acts. Because then it's not the lawmakers' problem anymore. Basically they're telling a social media company, "There is crime happening, fix it" — fully knowing that any tools that would promise anything close to 100% success would have huge rates of false positives, and would violate fundamental rights.

But since they're not prescribing any specific method to deal with this problem, the public sector can somewhat abdicate any responsibility for the negative effects. In my view, that's a cop out. It's also dangerous in the long run: If you're not willing to take responsibility for how the law is enforced, then you're giving up power and you're basically telling a company like Facebook, "You are in charge of what is allowed and what is not allowed."

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And of course, a company like Facebook is not going to enforce the law. They're going to enforce their private community rules that go way beyond the law in a lot of ways. So again, it's dangerous to abdicate responsibility for what we consider acceptable speech to a private company and accept whatever their standards are for society at large.

From Malavika
To Julia

There are three things in what you said that really resonated for me. One is this idea of false positives. On a lot of platforms — as well as initiatives that I see in Asia, whether it's biometric IDs or facial recognition — they don't care about the false positives or the false negatives, because there's this narrative that something is better than nothing. That's particularly true of developing economies where they feel, "These are people without consent.

They are either digitally illiterate or actually illiterate. They don't understand the consequences of what is being developed."

PEER TO PEER

So this idea of false positives and false negatives is seen as acceptable in order to improve and fine tune a system. And in countries where you don't have a lot of guardrails, whether legally or technically, a progress narrative will push through imperfect systems, just because it's seen as *something* in the fight against big social harms.

When I've done work on things like biometric IDs, I've almost thought that they're beta testing surveillance technology on groups and populations in marginalised communities that don't have the ability to refuse to be included. And it's a similar thing when it comes to the sort of privatisation that you're talking about: It's a privatisation of something that should be within the domain of government and law enforcement. But it's being delegated to people who aren't necessarily the right fit.

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The second thing you said that resonates with me is privatisation. It's exactly the same in a lot of domains, whether it's trying to create a smart city, or whether it's in China or India or somewhere where governments are not necessarily the best purveyors of technology. Governments enter public-private partnerships on everything from health systems, to transport, to energy, to a whole lot of things that are not just about free speech or expression. They're about very civic basic needs – needs that are very, very crucial to daily life.

MOZFEST

Those are things that are within the domain of governments; that's what you pay taxes for. So the idea that those are delegated or even abdicated to private actors is a very disturbing trend. If it was differently designed, I would be happy with the idea of decentralisation. But I don't like the increasing monopolisation and platformisation of many services. When you delegate public accountability to private actors

that act in self interest and that don't necessarily act in the interests of citizens, that's a very fundamental shift. You're going from a social contract to terms and conditions set by private players.

Julia, you touched on this in your email yesterday: You have certain rights and expectations when it comes to a government player, whether under the constitution, whether it's tort law, negligence, consumer protection, or labor laws. Those are rights you may have against a government actor, but that you might lose if services are provided by private actors.

And the third thing that resonated is, what kind of incentives are we creating when we are pushing this onto private actors? In many ways it's creating the wrong incentives, like for citizens to increasingly act less as citizens and to act more as users. At the Stockholm Internet Forum, Alix Dunn from the Engine Room said the only two industries where she ever hears people refer to “users” are the tech industry and the drug industry.

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From	Malavika
To	Julia

From	Julia
To	Malavika

You're right.

I'd never thought of it that way. But when essential services and decisions about speech, assembly, rights, and privacy — all of these aspects that make us people — are delegated to private actors, it creates the wrong set of incentives and disincentives. It ends up with everyone being seen as a user and not as a citizen. And that's something we should resist.

From	Julia
To	Malavika

In the European policy context, there is a particular irony to this. I think the reason why the European Commission is really pushing in this direction is not so much because they're malignant and because they want Facebook to rule the world — not at all. They do it because agreeing on common standards among the countries is too difficult. For example, we don't

actually have a European criminal law that defines what constitutes criminal hate speech on a European level. Most countries have some sort of national law. Some of them don't have criminal hate speech. There are codes of conduct and soft law initiatives. But essentially, the reason why we don't have common European laws on a lot of things is because the countries can't agree; because the value systems are too different. Ironically, that then leads us to accept whatever a private company has decided is the standard as a substitute for enforcing the law.

I also want to react to what you said about the false positives and negatives, and why politicians consider them acceptable. To a large extent it's because they don't hit everyone equally. Which ties into the point you mentioned in your email about algorithmic discrimination: The false positives reflect marginalisation in society.

The false positives and negatives also reflect what algorithms are bad at. This was a point I was trying to make during the copyright debate. Our conception of copyright — and I think the same is probably true for other legal concepts — is changing based on what an algorithm can distinguish. For example, the idea of originality, or the ideas of parody and criticism and caricature, are losing importance in copyright law. Because an algorithm can only do pattern matching and can only determine, “Is the copyrighted content there? Then it's probably an infringement. Is it not there? Then it's not an infringement.”

The same is probably true in the criminal context, when they use algorithms for criminal sentences. An algorithm cannot evaluate the severity of a crime or the harm that was caused. But it can evaluate the likelihood of reoffending or other things that can be statistically inferred. And so our entire concept of what we consider justice or what we consider illegal is changed by what a computer can do.

From Malavika
To Julia

But shouldn't it be the other way around?
That we build tools based on our values, rather
than change the values to reflect the limita-
tions of our tools?

That's particularly important
because in a lot of these domains
the question is, "How can we use
AI?" rather than "What is the pro-
blem we're trying to solve?"

From Julia
To Malavika

From Malavika
To Julia

I find that really interesting. Researchers
based at Harvard and MIT looked at this in
the context of changes to the criminal law in
Massachusetts. In the beginning, the research
question was "How can we improve the algo-
rithms used in the criminal system to have less
racial bias?" And eventually, the conclusion
was "Don't use them at all."

Don't use them.
Yeah.

From Julia
To Malavika

That's a difficult discussion we have
to have. I found that article you sent
[about the merits of internet shut-
downs in Sri Lanka] and the rebuttal
very provocative. It's making the
argument, "Let's just not use social
media." It's useful to make a con-
scious decision about what technol-
ogies we do want to use and in what
context, rather than just using them
because it's there.

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From Malavika
To Julia

And also a conscious decision
about not using shutdowns as a
very blunt instrument.

From Julia
To Malavika

Yeah.

From Malavika
To Julia

You can't say "We'll just shut everything down
without any sort of nuance." If you have a
shutdown in Kashmir, or if you have a shut-
down every time kids are going to school and
have exams — that's a stupid use that has no

relationship to the consequences it might have for business or finance.

Also, the role of alternatives is something I keep coming back to. Do you use AI or not? What's the better tool? A lot of times we shut down social media without considering: Could the government actually provide better information to combat misinformation about a national security issue? Rather than not allowing anyone to use social media at all, because we fear bad actors?

From	Julia
To	Malavika

There are better answers than these really blunt propositions like shutdowns. But for some reason they don't make it into the political debate. We're seeing this in Europe in the area of counter-terrorism: We had this proposal on countering terrorist propaganda online that was an extremely blunt instrument and was treating a small blog with a comment function the same way as Facebook. It was basically covering any hosting provider whatsoever and saying they have to respond to law enforcement take down requests within an hour. And it was very clear that from the way that the law was written, what they had in mind was video. They were thinking of YouTube and Facebook. They were not thinking of the comments under a small blog. The Commission's own data shows that the likelihood of there ever being any terrorist content on your average hosting provider is infinitesimally small.

Nevertheless, they proposed this extremely blunt instrument and then used something like the Christchurch massacre as justification. Which I find very strange, because in the case of Christchurch, the problem was not that the material wasn't deleted within an hour. I think Facebook took down the original video within 17 minutes – so, they would have been *more* than compliant with what the proposed law was saying. The problem was about the spread of reuploads. And so this legislation wouldn't have changed anything.

From Malavika
To Julia

There is a lack of nuanced, academic discussion about what actually works. It's very difficult for academics to bring the results of their research into the political space.

One of the problems there is also that so much of the data is proprietary and in the control of the platforms and the private actors. It's not available to academics to study. So, even if you want to study how hate speech gets disseminated, who the actors are, what are the patterns — things where AI might actually be used — there's no access. It's also hard to study whether countermeasures or counter speech narratives are working or not. Again, you have no ability to study it in any meaningful way over time. I know companies like Facebook are trying to now give data to the Social Science Research Council, but that highlights the fact that they're gatekeepers.

From Julia
To Malavika

Yeah.

From Malavika
To Julia

They determine who to play with and who not to play with, and on what terms.

From Julia
To Malavika

Do you think it's primarily a regulatory problem? That we just need to pass laws that force those companies to share the data? Or is it also a computer science problem of what algorithmic transparency actually means?

From Malavika
To Julia

That's a really good question. To some extent they're able to not divulge data because they see everything very broadly as being their "secret sauce." They don't divulge how they do things because that gives competitors too much information. And again, this plays into this whole monopoly problem that we're talking about. But it's also partly regulatory — that could be one way of fixing it.

Also, they're always telling us how we should all learn how to code. But they never tell the technologists that they need to learn ethics.

That's a fundamental problem with the design process; they think ethics can be a very nice bolt on at the end. It's not engineered into the entire process.

I don't know if the right set of outlets are provided for companies to share information in ways that don't divulge personal information and anything sensitive about the companies. I mean, they're perfectly happy to track copyright content when World Cup ads appear on Twitter, right? If anything is an infringing image, they're able to track that quickly. But somehow when it comes to policing other kinds of content, they're like, "Oh my God, we're so helpless. We don't know how to do this." Which seems strange to me.

From	Julia
To	Malavika

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I think there's a difference in difficulty whether you're looking for something that you already know — like the football ad — or something that looks different every time. So, I do think there is some merit to this argument that not all illegal content is equally easy to identify automatically. I think copyright is actually one of the harder problems, because whether it's illegal or not is context-dependent. If you have something like the Christchurch video, the context doesn't matter. It's always the same video, so it's comparatively easier. Whereas if you have hate speech in broad terms, it can look very different and it would be much harder to detect automatically. You would probably have huge numbers of false positives.

Also, I don't buy the trade secret argument at all. Nobody has been able to explain to me what the public value of trade secrets is in the first place. With patents, there's the idea of, "We give you limited protection in order to make the invention public, and then after the patent runs out, it's usable for everyone." At least in *theory* I can understand the idea.

But with a trade secret, you're basically saying you get infinite protection in return for keeping something secret, and there is no public

benefit to that whatsoever. So, I don't see that as a legitimate concern. What I'm more concerned about is: How is it possible to make that information public in an understandable way that people can work with? This is an important problem; researchers need access.

This is a place where regulation has a role. The European Commission is probably going to propose an overhaul of the e-commerce directive, which enshrines the hosting safe harbor in law and is fundamental to internet regulation. My fear is that it's going to be an effort to extend direct liability to all kinds of sectors.

One thing they are talking about is regulating online advertising as a business model. That is actually a good idea, because if you look at the platforms that are the focus of public concern, what they have in common is not that people can upload stuff — there are a lot of websites where you can upload things, and most of them do not pose any threat to society whatsoever. What those platforms that require stricter scrutiny all have in common is a very strong focus within their business model on targeted advertising. I think that's much more useful to look at.

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From Malavika
To Julia

On the point about transparency: Did you read that piece Jonathan Zittrain wrote recently in the New Yorker? He addresses the very interesting idea of intellectual debt, in this context of making algorithms and AI explainable.

He notes that we've always had inventions where we didn't know how they worked, and we still use them anyway. Whether it was lifesaving drugs or scientific accomplishments, there's been a lag between development of the product or service and understanding exactly how it works.

But scientists spend time explaining this after the fact. So there's an intellectual debt that's created in understanding it, and we pay it off over time as we understand side effects, how drugs work, cross indications.

And eventually, that intellectual debt gets paid off; the thing that was inscrutable then becomes explained. Right?

From Malavika
To Julia

From Julia
To Malavika

Yeah.

And he draws this parallel with how AI and algorithms work. He says that kind of intellectual debt is being created again, where these systems are working in really mysterious ways. Even the people who develop them aren't able to exactly explain how they work. And if we don't ramp up our efforts to repay this intellectual debt, we're going to have even more crises. It's a really different way of looking at all these usual debates about explainable AI and transparency.

From Julia
To Malavika

I think it's a fair point. I'm just wondering if this is a debt to the general public, who are not computer scientists, to understand Bayesian statistics and pattern matching and so on. Or, whether it's also a debt to educate computer scientists about the shortcomings of algorithmic systems.

I was at the Internet Governance Forum and we had a discussion with Vint Cerf about algorithmic discrimination. He was making it sound like it's always just a problem of bad data input. But I don't think that's the case. For example, Facebook had a category so advertisers could target people who hate Jews. That wasn't a problem of input data, because it's not like this category of people doesn't exist. They do exist, and the data probably correctly shows that. It's a question of whether advertisers *should* be able to target them. That's not a question of mathematical accuracy of the underlying algorithm.

From Malavika
To Julia

Exactly.
Bias is not always dependent on the data being clean or dirty.

I also found a piece by danah boyd and others really interesting. It looks at algorithms as socio-technical systems, and the different ways in which bias manifests. They talk about five different “traps” that you can fall into. One of them concerned introducing a score to measure people's likelihood to reoffend, to help a judge make a decision about sentencing. You have to account for the knock-on effects of something like this. It could be that the judges are then asleep at the wheel. They think, "Oh, here's a really perfect score, I don't need to think about it anymore. I'll just implement this score without any discretion." Which might work really well for the mean, but be really terrible for the outliers and those edge cases where principles of natural justice might apply, or common law principles might apply.

But the opposite could also happen. So even in a situation where the judge could make all kinds of mistakes and the score might actually be a good thing, the judge could view this intervention in a very hostile way. The judge could think, "I've had so many years of training. I've gone to law school. You think some stupid computer is going to tell me how to do my job?" And then he outright rejects all those scores, because he sees them as a challenge to his authority.

If you fail to account for both ends of the spectrum, and you just intervene in a system with this algorithmic decision making tool, then you've got all kinds of problems that you didn't provide for. There are a lot of instances where something might work well for people who fall within the average, but work terribly at edge cases, whether it's policing, speech, or content.

From	Julia
To	Malavika

Yeah, there are a number of problems with these applications. One is that biases that exist in society can easily seep into these systems. For example, with these criminal justice scores, one factor is the number of expulsions from school. Whereas we know from

research that teachers are much more likely to expel students of color. So in that way, even if you don't have race as a category, you're going to introduce it through other things that have a racial bias.

But even if the data is good and doesn't have any bias, there's still a problem. If you have any sort of difference between categories of people, it's going to be amplified. If you release all the people who get a good score and you keep all the people in prison who have a bad score, then whatever constitutes the bad score is going to become associated with criminality.

Then rehabilitation is going to be all that much harder. Basically you have to decide what's more important: more efficiently releasing the people who are least dangerous, or the prospect of rehabilitation for everybody. Because you can't necessarily have both.

It's not a problem of the algorithm being inefficient. It's just that it's measuring the wrong thing. It's imagining that there is no interaction between the outcomes of the algorithm and the world that it is trying to represent. It's like saying, "Whether or not I release you from prison is not going to have any effect on your future."

From Malavika
To Julia

While we're talking about things that really concern me about scoring in general: China is often used as the poster child for all things terrible and dystopian and "Black Mirror," right? With the social credit system?

From Julia
To Malavika

From Malavika
To Julia

Especially in Europe.

That drives me crazy, because as much as I don't like the system, I also don't like the reporting of the system as, "Oh my God, it's so terrible, but I don't need to worry about it because it's happening somewhere else." Because in the U.S., you've had all kinds of credit ratings systems for a while.

From Julia
To Malavika

Yeah.

From Malavika
To Julia

There's a certain "othering" that happens with technology somewhere else. To some extent it's completely justified, because if you don't trust the privacy safeguards or other guardrails in those countries, that's fair. But I think it's often from a complete lack of understanding of how it's implemented. It's nice to play into all this sci-fi tropes and see it all as Armageddon. But the way these things are proliferating in Asia is through a blurred line between the social and everything else. Our social behavior is resulting in scores that affect everything from whether we get a loan, whether we get admission into something, whether we get jobs. Things that were purely fun and personal and were done within a certain context are being used to extrapolate and make decisions about us. They are used in ways that are not just social anymore.

From Julia
To Malavika

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From Malavika
To Julia

Are people aware of that?
Do they change their behavior
to play toward the score?

There's gamification at both ends. There's gamification on platforms, where they use all the nudges and the behavioral economic techniques to make it all seem so playful and casual and informal. It encourages users to divulge more and more data because they think, "Oh, this is a game. I get points. It's like playing Pokemon." They don't see the impact of it.

But there are also ways people are gaming the system to improve credit scores, and it's changing behavior.

In some ways this reputation economy can be super enabling. People who are part of the informal sector who previously had no

professional persona — gig workers, food delivery drivers — suddenly start to build some kind of reputation. They see it as very empowering. So again, western narratives about it being a really creepy system don't always apply.

But then you realise that all of this reputation gain is locked with a particular vendor. It's not a portable score; they can't say, "I'm going to go drive for your competitor, and I can take my good scores and points and reputation with me." The value accrues to the platform and not to the person.

From	Julia
To	Malavika

I'm not sure if that's something that would need to be regulated. Wouldn't smart companies simply say, "We do allow you to port your reputation"? I don't know if anybody does that, but it seems like the right move to me. Let's say you're a competitor to Uber. Just say, "If you've been driving for Uber and you have a five-star rating, we're going to import that into our system if you switch to us." I don't think that Uber could do anything about it. They would probably try to claim some kind of intellectual property on the rating, but that seems like nonsense.

There is a certain hypocrisy in the way that the western media report on scoring. And I think when it's about China, there are some Cold War sensibilities: "This is what they do, but this is not what we do."

In Europe it's probably less that way, but of course in Germany we also have a credit score and it's run by a private company that has very little accountability about how their algorithm works. A German NGO recently did a crowdsourcing exercise to try to reverse engineer it and find out how it works.

Also, it's interesting how the global technology discourse is filtered through a U.S. lens. We're here to talk about Asian digital rights and European digital rights, but quite often we come back to U.S. discourse — like the criminal

justice system and scoring. That's just an observation; I don't know what to do with that. I guess it's unavoidable because a lot of the actors and the big companies are American.

From Malavika
To Julia

But it's also interesting how the GDPR has excited people in Asia more than you would imagine.

From Julia
To Malavika

From Malavika
To Julia

In a good way?

In a good way. A lot of people are trying to cut and paste it. It's forced companies to say, "If we want to trade with Europe, we need to be aware." Law firms are doing training programs for their clients.

There was a lot of excitement, and it's actually given some weight to the privacy discourse. Earlier it was very easy to say, "The US model is weak in certain ways," or, "You rely on the FTC and FCC, and it's not that great." But then the GDPR forced people to look at Europe more than the US when it comes to data protection.

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From Julia
To Malavika

But imagine other countries around the world start passing legislation that are incompatible with each other. What happens then? It's a bit of a gamble, but I don't think it's sustainable in the long run to just say, "Well, we'll just pass internet legislation that has global application." Who is going to enforce that? At the end of the day, the GDPR is enforced through the market power of the European Union.

From Malavika
To Julia

I think the GDPR has a certain meme value; it raised the level of discourse and the number of actors and stakeholders who feel they have to educate themselves about this. Even from an enforcement or trade point of view, if it has limits, the fact that it energised conversations

around privacy and data and algorithmic accountability... at this point, we'll take anything we can get.

From Julia
To Malavika

PEER TO PEER

That's really good. It was a big fight, and the fact that it was passed in the form it was is due to a number of almost random circumstances that created a window of opportunity, such as the Snowden revelations. We're really going to have to see how it plays out in the long run.

But it's good to see that in some areas regulation can have this positive effect. In the European Parliament, I found myself 80% of the time arguing against legislation that was not thought through. And 20% of the time trying to push for something to actually pass. Which is kind of discouraging about the state of regulatory intervention and technology. Even though I'm far from a libertarian and I really do believe in government regulation of the internet, in practice a lot of what is put forward is actually creating problems for us. So it's good to see there are examples where this is not the case.

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From Malavika
To Julia

In Asia, I often hear that old metaphor about industry 4.0 battling with law 1.0. I often have to say, "Well actually, that's not a bad thing. Because a bad law is worse than having no intervention at all. Not rushing to fill a regulatory or legislative gap is not always a bad thing. Waiting to have more evidence of something before you decide to enter a space is not a bad thing.

Especially when you look at some of the over-broad legislation you see under the guise of cybersecurity or killing encryption – sometimes waiting and watching is not terrible.

From Julia
To Malavika

MOZFEST

Yeah. I'm also not sure that you need to have that level of detailed technical understanding to be able to regulate. My impression is that lack of technical understanding is not always the biggest problem. It's more the lack of rigorous analysis of the argument that is put

forward. And that's not something that you need a computer science degree for. It's more something that you need time for, and independence from lobbyists, and academic input. And all of these things cost money. A smaller state is not going to make those problems any less pressing.

From Malavika
To Julia

Impact assessments
are not the sexiest thing to
hear in government.

From Julia
To Malavika

The European Commission does impact assessments for everything, but some of the time it's policy-based evidence making. They already know what the answer is supposed to be, and then they try to create the evidence to suit that narrative. That's of course not how an impact assessment should go.

From Malavika
To Julia

Yeah.

Well, because of time we
need to stop here —
otherwise, we'd just keep
going.

From Julia
To Malavika

Maybe we can continue
the conversation at
MozFest!

On Power Dynamics, Knowledge, And Building Equity Online

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From Anasuya
To Cory

Hello, Cory.

From Cory
To Anasuya

Hi, Anasuya.

Something I've been thinking about lately, with everything that's wrong with the internet, is how we approach solutions. We spend a lot of time thinking up new ideas and prescriptions, but not enough time on maintenance and fixing what already exists. There's not a lot of thinking about how to stop things from getting worse online.

For example: We have ideas for which things people should add to Wikipedia to make it more inclusive. But we don't talk enough about

how to make sure that if you *have* an idea to make Wikipedia more inclusive, that it's possible to try it. We have lots of ideas about how to make software more secure, but we don't spend nearly enough time making sure that people who find defects don't go to jail.

From Anasuya
To Cory

It's interesting you said that. As a feminist, this is very familiar to me. Feminists and social justice activists always think this way. We think about holding the line. Once we get something, we think about redesign and re-machination for something better. You're right that internet activists don't always think about it this way.

From Cory
To Anasuya

I was raised in the feminist movement as well. I think I see what you're saying. The "yes, but" that I'll add is in expressions of things like hate speech, there's an under-appreciation for the potential for people who have more social power to abuse hate speech rules to censor the people we're trying to protect.

In the UK, I watched as anti-hate speech rules were used to attack black activists who criticised the police. The cops have lots more resources for civil enforcement than black activists who are being victimised by the cops.

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From Anasuya
To Cory

This all can get mistaken for "free speech at any cost" as opposed to "weigh the costs of abridging free speech."

Right. The John Scalzi-version of "don't use free speech to be an asshole, especially if you're the cop."

From Cory
To Anasuya

Yeah, and the appreciation that power differentials persist even when you make rules. If the rules don't take into account power differentials, then the inequality of access to civil justice becomes the dispositive factor in how the rules are used.

From Anasuya
To Cory

This is an interesting version of the "holding the line" idea. Especially when you center our own privilege and recognise that the internet

is not just a socio-technical system, but also a social-technical-political system.

Sometimes we are holding the line for a system that has ignored power from the start. Wikipedia is a good example: Wikipedia assumed neutrality, assumed a kind of level playing field. But that sense of neutrality has been constructed with a very significant power differential.

That is where you need to deconstruct and reexamine the foundations of what we're holding the line for and with whom and for whom.

From Cory
To Anasuya

Very well said. It reminds me a little of the argument that I've had with people about science fiction stories that are beloved but, in my view, very flawed. A good one is "The Cold Equations."

Its premise: There's a girl stowed away on a rocket ship that's delivering vaccines. When the pilot discovers that she's stowed away, he realises that he can't land the ship because he won't have enough fuel. So he has to shove her out of the airlock.

It's presented as an inevitability. But what drives me nuts is that the premise only works if you accept *all* of the things that happened before the story started. Why are they sending out spaceships that don't have enough fuel to land if the weight's a little more? Why weren't there vaccines on their planet to begin with? Why isn't there an autopilot?

It is very convenient to say, "All premises date back to prehistory and are unquestionable, and therefore..."

From Anasuya
To Cory

Exactly. I use seat belts as an example of this all the time. Rules for seat belts are great and important. But start deconstructing what those rules mean. Who were the seat belts designed for? And why is it that women are 71% more

likely to be injured by a seatbelt in a car crash, or 17% more likely to die than men? Because seat belts were designed for men, using crash test dummies based on the North American male body or the European male body.

From	Cory
To	Anasuya

I'm on your side here. But there's something I get stumped by. I have a friend who works on human rights and data analysis. We were talking about the problems of algorithms and the lack of diversity in statistical analysis design. He said as important as it is to have people who are smart about the social context of automated systems, the biggest problem that he sees is not the lack of diversity in the outlooks. (Although that *is* a problem.)

He says a much bigger problem is a lack of statistical rigor. He says that there's a huge danger that if your priority list goes diversity and then statistical rigor, then all you do is diversity-wash a process that is flawed at a foundational, technical level.

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From	Anasuya
To	Cory

You and I know that the key piece is garbage in, garbage out; if your data set is bad, what you get is bad. That's exactly why the question has to be "for whom, by whom, and for what," at all points. "Bad data" is sometimes epistemic injustice because when you ask the question, "By whom," it's not diversity washing. It's seeking equity because of epistemic injustice.

From	Cory
To	Anasuya

Lack of diversity can be a diagnostic heuristic. To say, "Is this terrible because it wasn't diverse?" A lot of things are terrible because the design teams weren't diverse. But I think the other thing that you're saying here is that you also have to ask yourself, "If it *were* diverse, would it be fixed?"

A good example is Chinese facial recognition. It really struggled with the faces of people from African descent, because their training

data was usually lacking. So they went to one of their sub-Saharan African client states and requested their entire driver's license database, which they then used to train their facial recognition system.

Now it's much better at recognising black faces – which means if you are black and a dissident or under suspicion in China, it can track you much better now.

So I think you're right. You have to not just attend to who's in the room or what data is being used, but also if it should exist in the first place.

From Anasuya
To Cory

And who has the agenda and design-setting power, right?

From Cory
To Anasuya

From Anasuya
To Cory

Yeah. Who gets to decide what your victory condition looks like?

173 Right. That's a good way of thinking about it.

Regarding the conversation around diversity, I'm going to come out and say it: I hate the word “diversity” and find it hugely problematic. For me, both “diversity” and “inclusion” have problems because of diversity washing, which we're all doing. It becomes a checklist. “Have you got one of this and two of that and a slice of that?”

Then “inclusion” is problematic because it's primarily a construction of power and privilege. “We're going to invite you in, and we only invite the people who we think are not going to rock the boat too much, who are not going to give us trouble. We'll invite the people who are nice to us and will challenge us in a nice way.”

Neither of those gets to either equity or to justice. And that's the key piece to me: where is injustice, and what does it look like. Because at the end of the day, the two big issues with

the internet are colonialism and capitalism. Those two things are not about diversity and inclusion. Those two things are about reparations and reclamation and redesign.

From	Cory
To	Anasuya

Thank you for raising that. I've been having an ongoing internal and external debate with colleagues and friends about decolonising data.

My concern is the same one that I had when I first encountered this idea, talking with people who were part of the traditional knowledge movement and wanted to establish sui generis rights for indigenous people from Australia who are survivors of genocide. Their policy prescriptions were to create something like a property right for very ancient things – languages, symbols, and so on – and then to hand over control of that property right to institutions of indigenous people. But those institutions were created by colonial parties. The Australian government recognises who is and isn't officially indigenous, and then also recognises who is or isn't able to speak for them.

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This is a problem in Canada, too, where I've had friends who were counted as indigenous at first because they had one indigenous parent – and then counted as non-indigenous when that parent died and they were forced to leave the reservation. Then their ability to use sacred symbols of their heritage – specifically to criticise the people who made the choice to exclude them – was at the sufferance of the people who'd chosen to exclude them.

I speak as someone who's not indigenous. I want to be respectful of the views of indigenous people, but it seems like property is just a terrible framework for figuring out how to do reparations.

From	Anasuya
To	Cory

You're right. Yes, property is terrible. The reason that we end up using it is because, to badly paraphrase Audre Lorde, "sometimes that's the only way to get to burning down the master's house."

From Cory
To Anasuya

From Anasuya
To Cory

Maybe that's right.

Institutions then become weapons or instruments of the oppressed, because that's the only way we have found to navigate and negotiate things. If you're already so far behind in the power game, how do you transform institutions?

From Cory
To Anasuya

We've had 40 years of neoliberal orthodoxy that says things are only valuable if they are property. There's an enormous temptation to say — and we hear this now in privacy debates — "This is valuable, therefore it's property. Therefore we need to have property arrangements for it."

In the conditions of massive inequality, that's not going to work great. Look at what happened to copyright: We expanded it to cover samples. We said: "This will be a form of justice for the exploited African American musicians whose music was taken at knock down prices by corrupt record labels and then assigned over to them in perpetuity. Now they'll get paid for samples."

And they do for a little while. But then what ends up happening is that the hip hop artists that are performing today have to sign deals with record labels, because the only way they can clear the samples they need to use is to be under the wing of a record label. And *they* have to sign away the royalties for samples in the future.

Creating property-like rights under conditions of inequality is like giving your kid more money when the bullies keep taking their lunch money. The bullies don't just say, "I'll just take that five dollars I normally take and leave you the other five dollars to buy a pizza." They take all of it.

From Anasuya
To Cory

On this last thing, I couldn't agree with you more. I'm entirely against property in this form, and the piece that I'm trying to come to is recognising why, when you have been historically and structurally marginalised, you come to certain versions of the world as a potential solution rather than the more transformative one.

I'm going to give an example:
Whose Knowledge? was invited to speak at a conference earlier this year. My co-founders gave a kick-ass keynote around race and ancestry and the fact that we cannot imagine the future without looking at the past.

One of the interesting things that happened was that we were invited onto a panel about the indigenous commons, looking exactly at some of these issues that you're bringing up. But not a single indigenous person was going to be on that panel. So we had to ask the organisers to put aside funds to make sure that we had an indigenous scholar there.

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From Anasuya
To Cory

From Cory
To Anasuya

How did it go?

It was a great panel, but we had to push for it.

When we're trying to reimagine things, we have to decenter ourselves and say, "Okay, who do we center in this conversation?" Otherwise, we're going to end up with indigenous leaders – from communities who gave us the original notion of the “commons” – saying, "You didn't include us in this redesign, reimagination process, so we're just going to use what you've already given us: colonial and capitalist institutions like property."

That's why moving from diversity to equity makes sense. It is really important that when you look at an issue, you look at those who are

closest to that issue. Those who are closest to the pain need to be closest to the power of setting the agenda and designing. That means not one or two people, but a critical mass.

When we held the “Decolonising the Internet” conference last year in Cape Town, 67% of participants were women or non-binary folks. 68% were from the Global South, and 77% were people of color. It completely changed the conversation. You would have had a very different conversation about the internet than you would in many of the other events you're at.

From	Cory
To	Anasuya

This is something I think about in the context of Q&As. When I do a Q&A, I say that I'm going to alternate between people who identify as a woman or non-binary and people that identify as male or non-binary. And, we start with a woman because oftentimes it's just one or two questions. Many people are very critical of this, including some women, who say that they feel put on the spot; that if they stand up and ask that first question, they only got to because they were a woman.

I am completely sympathetic to that viewpoint and I do not think that this is a perfect system, but the undeniable truth of this is that I get different kinds of questions and a different kind of discussion. And if I don't use this method, I just hear from dudes and it's always the same stuff.

From	Anasuya
To	Cory

That's exactly right, and I'm with you.

One of the ways I do it as a facilitator is to have people discuss in pairs for a little bit before the Q&A starts, to have a brainstorm. Then I'll wait to see who puts their hands up; the first hands are almost always male. And then I can make the point, after the second man, that the first hands were all male and now I would like to invite those who do not self-identify as male to ask questions.

From Cory
To Anasuya

Also: My issue is not with people who stand up to try and make a point in the guise of questions. My issue is the people who do that really badly. Make it pithy. Make it a zinger. Make it two sentences.

From Anasuya
To Cory

It's about presumptions of power, right? We assume people are able to be pithy and on point and argue with a sense of confidence — but that comes out of a form of hidden power that is deep and natural.

The reason I think brainstorming with others works is because it gives people a safe and welcoming environment in which to then have the confidence to be open.

Openness as an end in itself makes no sense if it's ultimately not safe and welcoming to those who want to be included.

From Cory
To Anasuya

Right. There's a saying: "You should have an open mind, but not so open that your brain falls out of your ears."

That's a funny thing that happens. I have a dear friend whose big blind spot is that he's so smart, and has so often discovered that what was accepted wisdom is wrong, that he now no longer accepts anything. For this reason, he's a climate denier.

From Anasuya
To Cory

This is what a bunch of us think about when we think about epistemics. The notion that a fact is something that so laden with power that, unless we recognise the power in the context of that fact, you're going to end up exactly as you said: One form of information looks like the other one. One form of information dissemination looks like the other, even when it's not.

One of the ways I've been thinking about it is this continuum between fact, multiple truths,

propaganda, and lies. For me, this is a continuum that inherently looks at power and privilege. But my question is — and this is significant given how we think about what's on the internet — what happens when those you're giving data to are unable to recognize the significance of that data, because it doesn't look like that data applies to them?

From	Cory
To	Anasuya

From	Anasuya
To	Cory

Can you give me a concrete example?

Internet activists at all the tech companies are constantly talking about the next billion. It drives me nuts. Of the 3.5 billion that are already online, three billion of those are *from* the global South. Forty-five percent of all women are online. It's still reasonable to say that a significant proportion of those that are online and use internet services are women, non-binary folks, black and brown folks. And indigenous folks to some extent, especially with cell phones.

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But none of the internet really looks like us. How do you share that data and make it matter?

From	Cory
To	Anasuya

Yeah. Understanding the salience of data is something that most of us will never be able to do in most of the functions where the data is salient. You need to have the statistical literacy and the domain expertise.

What we've done historically as we've ramped up the technological complexity of our world is rely on transparency. So even if conclusions can't be understood, legitimacy is visible. Basically, we're delegating the government to be our expert in adjudicating truth claims — and the government is delegating some of that responsibility to journal editors and so on. Which is why in the context of Wikipedia, we say things like: "Is it from a reputable source?" We allow it to be cited in Wikipedia because we're delegating truth seeking to a process that we view as legitimate.

From Anasuya
To Cory

Here's the interesting piece to that. One of the most reliable and rigorous of sources is embodied experience. And what do reliable sources mean when the publishing world is primarily publishing in English? Even when *not* publishing in English, of the 7,000 languages that exist, only about 500 of them are online. Are we saying that everybody else that speaks a language doesn't have any knowledge?

From Cory
To Anasuya

I don't think the problem with that knowledge is its lack of reliability. I think the problem with that knowledge is the difficulty of adjudicating disputes about it. If two people have embodied knowledge that are contradictory, what do you do to resolve it?

For example, in the Mormon Church there have been many schisms over articles of doctrine. You had two different people who had two different deeply held faith revelations. Even if you accept faith revelations are sometimes true, which revelation was the true one? How do you adjudicate those disputes?

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From Anasuya
To Cory

There are always going to be slices of the world and slices of embodied knowledge that are going to be hard to adjudicate in that way – especially things that are about feelings and deep emotion.

You bring up the Mormon Church; one of the reasons we have so many fonts in so many languages of the world is because the most number of books in any language is the Bible, because of the church's role in colonisation.

From Cory
To Anasuya

Sure.

From Anasuya
To Cory

So *who* writes has always had a certain power. That adjudication process is already flawed in multiple ways, and it's not really in terms of embodied knowledge. It is in publishing.

It's in peer review. It's in every form of knowledge production that we have.

Given that, what we're looking at is: What does reliable peer review look like when it is in multiple contexts that are not just textual?

From Anasuya
To Cory

From Cory
To Anasuya

Right.

We actually have ways to understand that and to improve the way that peer review works in text, not just in English. But the dominance of English is in review and citation. For instance, look at open-source journals in Latin America. Latin America has the most open-source journals. But we don't cite Latin American journals enough.

I think there are multiple ways in which you get to rigor, but rigor cannot also mean a version of rigor that is only Enlightenment-based, science and technology can't be assumed to begin from 18-century Europe. What I'm trying to push at is the recognition that rigor is important, reliability is important, authentication is important — and none of those things can happen if we don't examine the epistemic system in which they're occurring, and who has the power in that epistemic system.

From Anasuya
To Cory

From Cory
To Anasuya

I think I have a way to tie all of this back around to where we started from...

Go for it.

From Cory
To Anasuya

All of these truth seeking exercises are limited by the realpolitik of power. I think the reason why people believe in conspiracy theories today is because they no longer acknowledge the legitimacy of truth-seeking exercises — because those exercises aren't legitimate. Truth seeking has become an auction, not just an epistemological process. What truth seeking tells you is who has more money.

From Anasuya
To Cory

Truth can become a choice of the powerful. And you have an environment in which truth seeking has a certain institutional drift: late-stage capitalism. So truth seeking by power and money gains deeper legitimacy — you already have the systems in place that make it look okay.

But there are those of us who are contradicting it and challenging that.

On Movement Building

MARK SURMAN is Executive Director of Mozilla, a global community that does everything from making Firefox to taking stands on issues like privacy and net neutrality. Mark's main job is to build the movement side of Mozilla, from rallying the citizens of the web to building alliances with like-minded organisations and leaders. Mark's goal is nothing short of making the health and accessibility of the internet a mainstream issue around the world. Follow on Twitter [@msurman](#).



DR. GAIL BRADBROOK has been researching, planning and training for mass civil disobedience since 2010 and is a co-founder of the social movement Extinction Rebellion (XR). XR uses non-violent civil disobedience in an attempt to halt mass extinction and minimise the risk of social collapse, and has rapidly spread internationally since its launch in October 2018. There are already 350 XR groups in 50 countries. Gail has been arrested three times for acts of civil disobedience, most recently at the Department for Business Energy and Industrial Strategy and previously at fracking and incinerator sites. Her talk on the science of the ecological crisis, the psychology of active participation and the need for civil disobedience has gone viral and been part of the inspiration for many to join XR. She is from Yorkshire, the daughter of a coal miner and was recently profiled on radio 4's profile show for her part in instigating a rebellion against the British Government. Follow on Twitter [@gailbradbroad](#).

(photo: Martin Lever / Orkney)

From Mark
To Gail

Hi, Gail. I'll start: Most everybody accepts that we have a climate crisis, and that getting on the streets to tackle it is imperative. You're working on one of, if not the most, important issues on the planet.

Meanwhile, in the internet health movement, we really want people to take action and be aware of the digital environment in addition to the physical environment. How does what we're working on look from where you sit? Does it look trivial? Does it look related? Does it look important?

From Gail
To Mark

Open-source communities are a really great antidote to this idea that you have to have capitalism driving innovation.

The idea that money is going to sort things is replaced by relationships, and people doing things because they care.

From Mark
To Gail

I'm glad to know that's a link you see. Open-source projects can be definitely like that.

The other piece: You can't open a newspaper today not see something about Facebook or fake news or the role that big, rich, American tech companies have played in enabling Brexit or Trump or whatnot. On that scale — beyond the activism of making the technology — does the impact of the big tech companies in the US feel like it's important in the climate crisis, or a sideshow?

From Gail
To Mark

Its impact on democracy's massive, and it's really important. Before we got the Extinction Rebellion together, I was involved in making a short film called “How to Fake Democracy,” which involved faking orgasms on the steps of the Houses of Parliament.

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From Mark
To Gail

[Laughs]

From Gail
To Mark

And that was one of the things that was pointed out — the Cambridge Analytica approach.

I don't believe we have democracy. My understanding is in America, whoever pays the most money wins. It's a corporatocracy. It's run for corporate needs. And corporations have rights; nature has no rights. There's no law to prevent ecocide as a crime against peace. That's the work that Polly Higgins was trying to bring through. And the big corporations are allowed to go offshore, to have a different set of rules, to have a different tax system.

It's also arguable that we don't have capitalism — that what the market system's doing is not good for anybody. It's this idea of a mad,

runaway paperclip machine that's just going to convert us all into paper clips, even though nobody wants that to happen.

And I wanted to say something about "climate crisis": We talk about the climate *and* ecological crisis. It's not helpful just to say climate, because the biodiversity crisis is arguably worse.

Something in the operating system of humanity is not working for us. We have to stop harming and start repairing the harm. We need to change things so that we're all purpose-led as individuals and as companies.

From Mark
To Gail

We don't see that really in the tech world; there's no shifting of the harmful business model. When you say you would want every company to have that kind of purpose, do you see any company right now of any size that does?

From Gail
To Mark

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I don't believe any of the bigger companies are really behind purpose. But it's not about blaming anybody; it's not finger pointing at a person.

I think a few things need to happen. People have to face this thing — it's like looking into an abyss. It's easy not to look at it when you're in these beautiful offices, when you've got a nice life, a good salary, and all that.

But your children haven't got a future. Some people think that human extinction is going to happen in our children's lifetime. There's some science there. There's also the analogy that during the Permian mass extinction, when 97% of all life was destroyed, there was smaller heating and less carbon dioxide than now. It's horrendous.

So look at it squarely in the face and ask yourself how you're living. One of the things we've come across in Extinction Rebellion is the idea

of the breaking of law as an act of initiation, to separate yourself from the system. We *are* the system. It's not over there. We are it. And there's something really initiating to me when you just go, "I've had enough of this. I'm not doing it anymore." It can be a real dark night of the soul. It can be a transformative, melting, not-sure-what's-happening feeling.

And out the other side is a lot more courage and a willingness to live life adventurous. It feels quite fun, actually. It's a hard thing to say to some people who have been arrested and had a horrible experience – but when you're privileged, and you've made that decision to put yourself on the line, and you've said you've had enough, it can be quite sexual. It's just something in the mischief of it all.

From	Mark
To	Gail

I can imagine that transformation, from different eras of activism that I've been involved in since being a teenager in the peace movement. That shift is exciting. It felt a little bit like we didn't have a future in the peak of the Cold War, as well. It was different and not as impending, but I get that feeling.

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The obvious next thing to ask: What are you seeing all of that courage adding up to? It feels like Extinction Rebellion actually has pushed the needle. Maybe it's just public attention? Maybe it's on people in power engaging? You're in the middle of it; you know if the courage is actually getting a reaction, as opposed to just feeling good.

From	Gail
To	Mark

Sure. Our first goal was to shift what they call the "Overton window" – the idea that there's a sphere of acceptable normal public debate. When we started, the idea that there's an emergency was not there. We were still having a discussion about whether climate change was real. We're starting to get rid of that.

In the UK, Dave Attenborough made films that have woken people up. There was the IPCC report and certain science papers

and obviously the school strikes, as well. The Overton window shifted, and there's a greater acceptance that there is a climate and ecological crisis. And that's a good first step.

The politicians are doing things, but it's real lip service. It's like there's an emergency and we've hit the alarm button – but we're just staying in the house, in the fire, and not even getting water buckets. We might get round to it in 2050.

I think it's important not to get attached to outcomes, even though my heart is longing for them. The reason for doing things is because it's the right thing to do. So let's just give it our best shot. Let's ask, "What does it look like when we stop harming each other, when we start repairing things?"

The way we're trying to run this rebellion is through a self-organising system, a decentralised system; trying to bake in different ways of being around each other; saying that self-caring in the work is really important. And there's loads of this that doesn't work properly. It's a mess, right? It's complex. But the intention is there, and work is happening.

It feels to me that it's about shifting the paradigm. I don't think this is going to work by saying, "Okay. Look. There's a climate and ecological crisis. But we have these policies, and a Green New Deal, and it's all sorted."

From	Mark
To	Gail

Right.

From	Gail
To	Mark

I wish it was that simple. But I think we have to change and be in a different space, and a different relationship with ourselves and each other and nature.

Can we talk more about the decentralised aspect of Extinction Rebellion? That's one piece I've been watching closely.

Living in the world you want is obviously a key thing you have to do if you want deep transformational change. You don't have a social movement or organisation that has grown this quickly that has clear leaders. It's pretty exciting to watch that.

From	Gail
To	Mark

We've been looking at holacratic models. And it feels to me that they are designed for organisations. We're a network that's growing in the UK and all over – we're around 150 UK groups, and then more internationally. It's like a fractal repeating itself, including all the messes that are in it.

One model is just to simply define 10 principles and values, and say, "Here's what this is about. And if you want to be this, then you just have to stick to these kinds of principles and values." That helps to have a sort of semi-occupied spread with a little bit more holding.

Then there's another bit that goes, "We want to train you in what it means to be part of XR." So teach people the DNA of the movement. And also figuring out that what's working in the UK is not necessarily going to work elsewhere.

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And then there's *another* bit, where we are trying to create working groups that help organise at the UK level and internationally. That's more concrete, more organisational structure. We were also practicing direct democracy, and people's assemblies, and things like that.

So we're playing at something, but we've got to get it right soon because, in all honesty, there isn't a great deal of time.

From	Mark
To	Gail

We also need to spread out the power. That's why I got involved with the internet and open source and all these things – because they can connect environmental activists, or feminists activists. We could decentralise everything, but that's not somewhere we're landing right now.

From	Gail
To	Mark

I know. I remember all that. It was all going to be Shangri-La, but it's Shangri-Shit, instead. What did you get wrong, tech? That's the finance system getting its claws in, isn't it?

It's the way that power aggregates and money aggregates.

From	Gail
To	Mark

Some communities have worked that one out — you have to redistribute. You have to have a mechanism. That's why the Quakers invented the game of Monopoly: To say even if you start with an equal playing field (which you don't by a long way — racial justice, et cetera), it all accumulates with one player. So then you have to redistribute. You have to have that as a value in cultures. That's what I say about rewiring. It manifests wrong in our culture; it's a trauma.

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Some people call it patriarchy, don't they? But it's a trauma that says "I've got to hang on to things." There's a beautiful line in one of Charles Eisenstein's books where an indigenous community is asked by anthropologists, "Why do you not store your meat?" And they say, "I store the meat in the belly of my brother."

Well, thank you for all of that. There's lots of inspiration in it.

We didn't even get to the fact that the tech industry is two percent of carbon emissions. Obviously a task for the tech industry is to fix how it's contributing to all this. And looking at how the movements connect and come together is the place to start.

On Data, Art, And Building Bridges

MIMI ONUOHA is a Nigerian-American, Brooklyn-based new media artist and researcher whose work deals with the missing and obscured remnants forged from a society based on automation. Through layerings of code, text, interventions, and objects, she seeks to explore the ways in which people are abstracted, represented, and classified. Onuoha has been in residence at Eyebeam Center for Art & Technology, Studio XX, Data & Society Research Institute, Columbia University's Tow Center, and the Royal College of Art. Her exhibition and speaking credits include venues like La Gaité Lyrique (France), FIBER Festival (Netherlands), Mao Jihong Arts Foundation (China), Le Centre Pompidou (France) and B4BEL4B Gallery (San Francisco). Follow on Twitter [@thistimeitsmimi](https://twitter.com/thistimeitsmimi).



IRINI PAPADIMITRIOU is a curator, producer and cultural manager, working in the UK and internationally. Currently Creative Director at FutureEverything, an innovation lab and arts organisation in Manchester, she was previously Digital Programmes Manager at the V&A, where she initiated and curated the annual Digital Design Weekend festival and Digital Futures among other programmes; and Head of New Media Arts Development at Watermans, where she curated the exhibition programme, exploring digital culture from a critical perspective and the impact of technology in society. Her most recent exhibition, Artificially Intelligent, was on display at the V&A September to December 2018. She is a co-founder of Maker Assembly, a critical gathering about maker culture: its meaning, politics, history and future. Follow on Twitter [@irini_mirena](https://twitter.com/irini_mirena).

From Mimi
To Irini

Hello!

From Irini
To Mimi

Hi!

I'll start by saying a few things about art at MozFest. Since 2014, the idea has been to bring in the artist's voice to talk about internet health issues and art and design's role.

For example: Mimi, in your work, you're dealing with data. You're looking at the idea of absence in a way that's really interesting. I've been working with many artists who are using data in their work, but it's very much about things that are there, and not things that are not there. People who are missing, who are not

visible, who are more vulnerable, who have weaker voices.

I would love to hear your thoughts about that — how you bring this idea of absence into your work.

From Mimi
To Irini

Bringing up the question of voice is really interesting, especially in relation to absence. The space of thinking about what is *not* being collected is very rich. Because there is all this stuff to explore, these reasons for “why not?”

People are always very aware of what data is not being collected about them. They're very aware of the information they need but cannot get access to. In many of these cases, it's a question of not who is speaking, but rather who is being heard. And they're not just not heard — they also don't have the same access to decision-makers. That's a theme I see in the project.

But there's this other side: Sometimes there's something very productive about what's not being collected. That can actually be positive — an intentional absence. It can be really useful to say, “No, we want this information to not exist.” Or, “We don't want this thing to persist.”

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So, there is a productive part, but also a destructive aspect. I think that's good, because it allows for nuance. What I'm always thinking about in making my work is: How do we consider these questions or these topics from multiple perspectives?

It reminds me of something the artist Jenny Odell talks about: When you look at one thing, and then you look at it more and realise it's actually two things, and then you look more and it becomes *ten* things. So much of the work that artists do in this space is that sort of multiplicity.

From Irini
To Mimi

I totally agree with you, and find this fascinating. There are so many different layers. One thing that I also find quite frustrating as

a curator is where art stands in society. I've been trying to collaborate with or approach tech companies – and also people in other sectors – and it's not easy. We do live in bubbles, and it's really important to make the case and fight for artists to have a voice and to help us see things differently, to enable critical conversations.

Another thing I'm wondering about is when you first started experiencing the web. My first email account and interaction with the internet was in 1998 or 1999. I'm trying to remember how this experience of voice and who is heard has changed over all of these years.

From Mimi
To Irini

I was quite lucky in that my first real, lasting experience with the web was around the same time as you. I was pretty young, and I was using the web because I had a group of friends online. We all wrote, and would all comment on each other's writing. We were all in different parts of the world.

From Irini
To Mimi

That's amazing.

In the off-line world I lived in multiple contexts and I had different friends and felt like a different person in these different contexts. But I also had this online life, where I *also* had friends and I had this other complete context.

It gave me this very early experience of thinking of the web as a space for multiple types of interactions, multiple types of people, and multiple types of contexts. And that is something that I realise now has definitely impacted my interest and pulled me into thinking about these issues.

This was pre-Facebook and before you really had these huge tech giants. It's clear that the web has changed drastically from those days. In some ways I think there's been collapsing.

From Irini
To Mimi

Yeah.

From Mimi
To Irini

There's a collapsing of anonymity. I had this experience as a young person of meeting these people who I knew online. And thinking, "Oh, wow, there's no way I could have figured out who you were, by your username, by anything."

Today, that is a bit more of a possibility. And there's this double-sidedness to that. Because anonymity can be used to protect people who are trolling or doing terrible things to other people. But then, as we were saying before, there's a flip side: It's a means of obfuscation and protection, particularly for marginalised communities or people who are harassed more online. It can be great to actually have a bit more of a shield.

From Irini
To Mimi

I'm so used to all these platforms and how we interact with them that it's really hard sometimes to go back and think, "Oh, what was my experience back then?"

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Also: The way that we use all these platforms – Facebook, Twitter, Instagram – makes us think that the internet is the same for everyone. But I wonder if that's actually the case. Maybe it's just how we think of the web in the West.

From Mimi
To Irini

Yeah.

From Irini
To Mimi

From Mimi
To Irini

Of course, many people still have no access to those platforms, or to the web.

I don't want to romanticise the past, because of course there were a lot of problems. But I think you're right – it's hard to compare whether there were more spaces for different types of people in the beginning. But it felt like there was more of an understanding of that, as opposed to now. Today, you can very easily imagine someone thinking that Facebook and the internet are the same thing.

These reductions felt less possible in the 1990s and early 2000s.

From Irini
To Mimi

PEER TO PEER

I wonder how things have change for art. Did you experiment with making art online, years ago? There were amazing artists in the late 1990s – cyber-feminists critiquing the internet and bringing out these ideas of feminist cyberspace.

From Mimi
To Irini

Do you think the way artists engage with the internet now has changed? And, how do you use the internet to disseminate your work and to get people to engage with your work?

Yeah. Well, I wish I had been making art back in the day. I'd love to know the answer first-hand to that question. I didn't really start making art in this space until the 2010s.

The advantage of being in this moment is that there is far more infrastructure, there is a bit more funding. There is more of an understanding of net art, of media art, art that is talking about technology.

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From Irini
To Mimi

From Mimi
To Irini

Yeah.

It's still niche. But we are indebted to so many of those early artists. People like Mendi and Keith Obadike. They were black internet artists – who are still around and still make incredible work – who were almost like a permission for so many of us. Seeing the work that they could do and being like, “Oh, you can do this. You can talk about all of these issues at the same time. That's possible.”

MOZFEST

I am happy to benefit from this stronger infrastructure. More curators are interested in this, and more spaces will show it. And more people want to talk about it. Especially right now, when we're thinking about things tied to emerging technology, including AI. When I first was making work, so many people were like,

"I don't even understand." When I would say "data" they would say, "Oh, like for your cell phone plan?"

So much of my work involves starting from this idea of data collection itself being a creative act. And the fact that I can say that, and people can at least be like, "oh I want to hear more" – to me says a lot about how far we've come. Of course, this is also commensurate with the ways in which the tech industry has grown and spread. It is affecting many of us, whether you're in a rural environment, whether you're a person who still doesn't have access to the internet, whether you are using a mobile phone and have limited broadband. All of us feel very much touched by this infrastructure.

From	Mimi
To	Irini

From	Irini
To	Mimi

Yeah.

Something I tell my students is that when you have a new technology, it's in those first few years that you really decide the terms of it as a culture. You start to decide, "Okay this is how we're going to use it. This is what is allowed, this is what is permitted, this is what is not."

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It's a process that's full of cacophony, with people disagreeing. But after some time, the dust settles. And that just becomes how it is.

And I feel lucky because a lot of my career and a lot of my life I have been next to those moments. It's useful to be in those moments, because you can look back and say, "Wait, these things didn't have to go this way." There's not an inevitability to how we design our social practices or the way that we consider technology. It's not that things had to go the way they did – but they did go that way. What does it mean that those systems are maintained?

From	Irini
To	Mimi

Absolutely. It's the fact that we can't escape – all these systems are so embedded in everything we do and in society.

After the Snowden revelations and Cambridge Analytica, there was a lot more interest from people to understand and take part in the conversation. I guess this is why many artists whom I've been working with have been getting more attention right now.

There is this need to ask questions, and artists have a very unique way and powerful way to demystify things for them – but also to make them feel that they have the power to ask questions and to get to make their voices heard.

The other thing that I'm wondering sometimes: Have we been normalising many of these systems and technologies? Are we becoming a bit more accepting of how much information we let go? Do we take enough steps to change things? There are so many things that we need to think about in terms of governance, in terms of legislation, et cetera.

From	Mimi
To	Irini

201 That is really interesting. To your first point, I think you're right: Artists can really affect cultural conversation around technology.

Some of these technologies have so much hype attached to them. People are like, "Oh, we want to talk about AI, we want to talk about crypto-currencies, we want to talk about this and that." But there's often this gap where people who are not experts in those fields don't have the same places to comment and participate and understand. The misleading idea that you must be a computer scientist or you must be a programmer to be able to talk about any of these issues. When that really isn't the case.

So much of the work being done now is saying, "Actually, you are someone who experiences this. You are somebody who applies to an automated decision-making system." As people who use them, that confers a kind of expertise. And so it means that we all can be at least talking about them from different vantage points.

This other point you raise – I think it's interesting what we normalise now. But my fear is actually slightly different. There is something so seemingly compelling and new and novel about emerging technology. And yet a lot of the things that artists talk about are enduring issues, enduring questions. About inequality. About loneliness. You see this when we talk about bias in AI. Why is it more compelling to talk about this when it comes to computational systems than it is to talk about them in social systems?

That's the thing that I worry about: We default to talking about them in these spaces because it feels like there's something more solvable or easier or more interesting than having similar conversations about the institutions or the systems that our technology is built on top of.

From	Irini
To	Mimi

Yeah, absolutely. We need to do a lot more work in terms of having these conversations. And that's what I find really difficult.

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Definitely. I agree with you – that is the most challenging part. Because it's uncomfortable and it's unknown and it's difficult.

From	Mimi
To	Irini

From	Irini
To	Mimi

Yeah.

It takes quite a lot. And in a way that's our work, isn't it?

From	Mimi
To	Irini

From	Irini
To	Mimi

Absolutely. How open we are about the challenges, opportunities, and things to explore. To see how we can be more prepared to deal with all of these challenges. But more and more we hear the voice of very few people, not the majority.

We do need more people talking about it. We have to do that work –

From	Mimi
To	Irini

building spaces that bring in different types of people.

I also don't mean to say that artists are the moral saviors – not at all. Art can also shut people out.

From	Irini
To	Mimi

I totally agree. That's why I created programs that extend beyond the physical museum. It can be a big bubble; it's a very specific type of audience interacting with what you're doing. And it's only when you get out of there that you realise that you *can* take this conversation out and talk to other people, as well.

I would love to hear any ideas you might have on taking the work that MozFest has enabled us to do and approaching bigger, other companies that are less transparent. Companies whose doors are really hard to open.

From	Mimi
To	Irini

We're talking about a space where people have entrenched power interests. And not everyone has an incentive to practice any kind of openness or any kind of transparency. Or to really talk about equity, or the ways in which their technology may be oppressive.

There are many, many groups of people and parties that will not want to talk about this. It's worth acknowledging that part of the reason why the work is hard is because there is actually a thing we're up against.

A couple years ago, I was at this AI and inclusion conference in Brazil. It was mostly for people with high levels of expertise in the field. But there was one event that was for the public, and that event was full. So many people came. It to me was a huge sign.

This woman asked a question. She said, "This whole conference is about AI and inclusion, but this is the only event where we, the public, have been invited. What do we do if we want to get more involved in this?"

None of us had an answer for her.
And that's a problem.

So, what does it mean to speak outside of this bubble? And to think about the ways in which these conversations are very tied to the West? They don't really account for what it looks like as a global system. For example, a country like Nigeria, where I'm from, has its own set of social conditions and rules and so on. And these things mean something different.

From	Mimi
To	Irini

From	Irini
To	Mimi

Yeah.

It's a back and forth. Because you need it to be local in terms of how things affect people, but also realise that this is just one piece of a much larger puzzle.

From	Irini
To	Mimi

This is something I've been interested in: to get outside the Western bubble of thinking. I was really lucky to do some work in South Africa with Fak'ugesi Digital Art Festival a few years back, and also in Indonesia. It was so refreshing to just work with local people and artists and designers and creative technologies, and to explore different perspectives.

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I had a conference experience very similar to yours. We explored algorithmic bias and trust at a very traditional tech conference about IoT. The organisers were people from industry. It was really interesting to be in that context and to understand how differently we define terms like “trust” or “accountability” or “ethics.”

It was an eye-opening experience for both sides. We got interesting feedback from people who hadn't previously considered questions like, “How do you start a design process that is more transparent and open?” And, “Where do you engage with users and people who will be affected by these systems?”

From	Mimi
To	Irini

So much of this work is building bridges between people.

From Irini
To Mimi

Yeah.

Between people who are in different places and speaking different languages and have different viewpoints into one piece of this large puzzle. Before we can do work toward shared futures, we have to answer, “What do we mean, what are we saying? Do we understand? Are we all saying the same things? Do we get how this thing affects this person, and the consequences are later on?”

From Irini
To Mimi

This is difficult and underrated.

Absolutely. So there's a lot more to do. I know that art is not going to save the world, probably. It's baby steps — getting into places where we wouldn't expect the art world to be.

Toni Morrison talks about the work of the imagination. It sounds up there in the clouds — but I think this is actually very rigorous, real work. The ability to change the way that people think about something is huge. The power to see, “Oh, maybe things don't have to be this way.”

It's hard, because it doesn't lend itself to metrics and it doesn't lend itself to easy tracking, it doesn't lend itself to seeing the impact directly. It's planting a seed and hoping that something comes of it. That is part of the work too — understanding that there are some times where you just won't see the effects.

From Irini
To Mimi

It's also seeing different kinds of options for the future, right? Seeing different, alternative ways forward.

This was really interesting. Thank you so much for your thoughts — it was great.

From Mimi
To Irini

Thank you!

On Girls In STEM Education

ALIA ELKATTAN is a 2019 MozFest Wrangler for the Decentralisation space. She's passionate about building technology that supports and advocates for the principles she believes in: equity, justice, and accessibility. In 2018, her team won a Mozilla Creative Media Award to build Survival of the Best Fit, a web-based game that explains how automated decisions can be biased. Alia is from Cairo, Egypt, and is now studying Computer Science at NYU Abu Dhabi. Follow on Twitter [@aliaealkattan](https://twitter.com/aliaealkattan).



AOIBHEANN MANGAN 12 years old and based in Ireland, is the 2018 European Digital Girl of the Year and an advocate and speaker for both rural broadband and Girls in STEM/STEAM. She's been a coder dojo youth mentor for three years and has run workshops at many events. Aoibheann is very passionate about equal opportunities in the STEAM world for boys and girls, and about finding a way to ensure those in rural Ireland get access to broadband and lessen the chances of a big digital skills divide. She has been to MozFest three times, and is thrilled to be a Youth Zone wrangler in 2019. Follow on Twitter [@aoibheannmangan](https://twitter.com/aoibheannmangan).

From Aoibheann
To Alia

I was looking at the news earlier, and discovered that here in Ireland, the points for getting a STEM subject in college have gone up because of the higher demand for them.

From Alia
To Aoibheann

From Aoibheann
To Alia

That's great.

It's motivating younger people to study STEM in a way that the Irish education system hasn't in the past. For example: In all girl schools, like the one I go to, there are no STEM subjects at all. And across Ireland, there are only a few pilot schools teaching girls STEM subjects.

Whereas in boys schools, there are a lot more of them – which is unfair.

From Alia
To Aoibheann

When you say there's no STEM subjects, are there any other opportunities for girls to be involved in STEM? Like extracurricular activities or after-school classes?

From Aoibheann
To Alia

Not at all.

From Alia
To Aoibheann

None?

From Aoibheann
To Alia

Not apart from going to clubs on the weekends. Not at the school – there's no opportunities for girls in that stuff.

From Alia
To Aoibheann

From Aoibheann
To Alia

How did you become interested in STEM, if not at school?

Well, we did it in primary school. And my mum is a teacher, so she coached me, and we also did Coding Dojo.

From Alia
To Aoibheann

You're lucky to have your mom around.

I'll tell you about my experience in Egypt. I didn't go to an all girls school, so there wasn't a gender divide. We had an IT class, which wasn't very advanced. But we also had a robotics club. Throughout high school I did robotics competitions every year, which was a lot of fun. That was the thing that made me interested in STEM fields.

It's interesting: In the club, we had an almost 50-50 male-female split. But when we went to competitions in the U.S. and in Austria, the divide was crazy. There would be like five girls and 75 guys. I remember one time I went to this competition and at the end they presented awards – one to a man and one to a woman. I got the woman in technology award,

From Aoibheann
To Alia

but I thought, *It's because there are no other girls*. I didn't feel like I deserved it.

If more girls were doing STEM at school, then they'd be more inclined to go to events. But right now, a lot of girls in my school wouldn't really be going to any technology events.

From Alia
To Aoibheann

It's interesting: I saw a couple of Facebook comments recently about how a lot of guys go into programming and coding because they like playing video games. They try to hack the video games, and in the process discover more about programming.

And if you think about the nature of the most popular video games, a lot of them are super violent — and not something that attracts a lot of girls. It made me think that maybe we should be providing more entertaining avenues for girls to become interested in STEM.

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There are a couple of girls that graduated from my university who are now working on a startup called *imagiLabs*. They're working on tools that let girls create accessories, and program how it looks. The idea behind that is to provide more entertaining and fun avenues for girls to become interested in coding. I think that's important; to not just market STEM fields as “you need this because there's a lot of jobs,” but to show it as something that you can just genuinely be interested in as you're growing up and having fun.

From Aoibheann
To Alia

Yeah. And STEM is also coming into fashion, beauty, and music — things a lot of girls would be interested in. And this gets them interested in going into technology events like MozFest, as well.

From Alia
To Aoibheann

Yeah. And I think it's also girls seeing more girls in STEM. When I would go to robotics events or to any STEM events and I just saw a bunch of guys I'd be like, *Wait, am I doing something*

wrong here? Why am I one of only five girls?
So just showing girls that there are other girls in this field, spreading stories of women in STEM and people who have accomplished stuff in the past. Then girls don't feel like outsiders when they go into STEM fields; they feel normal.

From Aobheann
To Alia

If you can't see it, how can you be it?
There aren't really as many role models for girls in technology as there are for boys. If they had more female role models then they could think *this is great!* and they'd be able to pursue STEM instead of thinking it's a male-dominated thing.

From Alia
To Aobheann

Yeah, for sure. I think it's tricky if you look at the big company founders, for example, like Mark Zuckerberg and Bill Gates – they are all guys. So maybe the idea is to look for different types of role models. Instead of marketing big tech CEOs, we can spotlight a 12-year-old girl or 15-year-old girl in your hometown that's interested in programming. The role models don't have to be these massive billionaires; just girls who look like you and are interested in coding and do it for fun.

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From Aobheann
To Alia

That's right. All the role models are people who are rich, not those who are interested in technology and want to change the way other people see technology.

From Alia
To Aobheann

MozFest is a great place for change to happen, because at these conferences you can build a community and you can meet people from all over. Like the Youth Zone, for example: You and others who are the curators and the wranglers of sessions, you're studying computer science and you're bringing young people into these spaces. You're showing them a community where no matter who you are, or what gender you are, or what you look like, you can be involved in these fields. Do you agree?

From Aoibheann
To Alia

I do. MozFest is great for people who are already interested in STEM, but also people who aren't interested in STEM but would like to explore it. The people running Youth Zone sessions are really interested in STEM and they want to get other people interested in STEM, too, which is really, really great.

From Alia
To Aoibheann

Something else that could be beneficial is not to market a divide between STEM and non-STEM people. Because a lot of girls don't see themselves as a programmer or a scientist or a mathematician – but they could still be interested in learning about technology. If we try to introduce people who are more interested in, like you said, fashion or literature or films, and show them that there's intersections between STEM fields and all those other fields, then we can make sure that people outside of STEM still have an understanding of what's going on in technology.

On Open Hardware

ALLEN (GUNNER) GUNN is Executive Director of Aspiration in San Francisco, USA, Allen works to help NGOs, activists, foundations, and software developers make more effective use of technology for social change. He is an experienced facilitator with a passion for designing collaborative open learning processes.



ANDREW (BUNNIE) HUANG is best known for his work hacking the Microsoft Xbox, as well as for his efforts in designing and manufacturing open source hardware, including the chumby (app-playing alarm clock), chibitronics (peel-and-stick electronics for craft), and Novena (DIY laptop). He received his PhD in EE from MIT in 2002. He currently lives in Singapore where he runs a private product design studio, Kosagi, and he actively mentors several startups and students of the MIT Media Lab.

From Gunner
To Bunnie

How do you define “open hardware”?

From Bunnie
To Gunner

Definition is a good question, it’s still controversial. People haven’t figured out as a community exactly what it means. One thing that is helping to crystallize it is open hardware licenses; protecting your intellectual property (IP) helps to focus definitions.

In software, there are GPL, BSD, etc. licenses, and people understand what they do. People misuse GPL on hardware, which you can’t do. I personally prefer the CERN OHL license. I had a chance to look at the latest draft: I like where it’s going, but there are some loopholes that

allow people to cross my definition of open hardware.

It's drafted in a way that allows people to close portions of their design by wrapping it into a physical module, like a breakout board, and then making only the specs of the module's interfaces open source. So long as the module is available for sale, the license provisions haven't been violated. The original intent was to allow people to not have to provide source for, say, a resistor, as that is a physical module that's available for sale. But I can see how the provision could be abused to allow people to put the open hardware label on stuff that's mostly closed source. In the end, the trade-off seems to stem from the OHL being more concerned about getting people to open up the physical design kits for chips and FPGAs, and less concerned about circuit boards. I think their hearts are in the right place, at least.

To close the "module loophole," I like to think in terms of layers. For example: circuit board layer, chip layer, chassis layer. Typically people tend to focus on a single layer or specialty, and if you want to wave the open hardware banner, then everything related to the things you've designed at your layer specialty or skill domain should be open; everything else is a component or library you've had to source, and you can't be expected to make those open because they are outside your lane. So, if you are a silicon vendor doing RTL, all the RTL should be open; if you're a board designer making PCBs, all the schematics and layouts should be open. What you can make, you make open; don't play games and claim you're open while trying to hold key secrets back from the community.

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From Gunner
To Bunnie

You have said in public talks that the future of open hardware is bright. Can you elaborate?

From Bunnie
To Gunner

The future of hardware in general isn't so bright, as Moore's law is ending. It's harder to make faster and faster chips for the same cost,

so the innovation cycle is slowing down; new products are no longer as differentiated any more.

Open source communities have fewer resources, so we tend to do development in our spare time. Now that the fundamental treadmill of Moore's law is slowing down, it limits how fast closed source efforts can move ahead. This means open source developers can keep going at the pace we were going and maybe have a chance to develop enough momentum around open standards to push the scales past a tipping point where closed source producers may have trouble competing.

From	Gunner
To	Bunnie

What sorts of time frames do you ascribe to bringing that bright future to pass? What kind of milestones might there be?

From	Bunnie
To	Gunner

I think it's a long time, as Moore's law is still clicking along, albeit slowly. I would say since I gave that first talk about the "bright future," we have passed one key milestone, which is that the "entry-level maker thing" now has the same CPU you would find in a mobile phone. Back then, it was Arduino versus a ~500MHz CPU, but now the Raspberry Pi has basically the same CPU as a mid-tier mobile phone. This means the baseline of the open hardware ecosystem is approaching that of the closed hardware ecosystem. That change took four to six years. So, I think it's going to be another five to 10 years before we start to see this baseline hardware turning into system-level standards that start to give closed source solutions a run for their money.

Another thing that would be good to see – and probably coming soon – is a really good open source WiFi reference design, and an open source

desktop motherboard reference design. If you read the rhetoric, the Open Compute Project is trying to do that – but you need credentials to see the docs. That is not open.

Once we have these core fundamental elements opened up, the ecosystem will need to figure out conventions around manufacturing, so there is an economy of scale you can get by sharing common parts between designs. If we all agree to use particular conventions for capacitors or power supplies, then you can get a real economy of scale, as manufacturers can share production across many projects. But it's going to take five to 10 years.

From	Gunner
To	Bunnie

How about fabricating our own chips?

From	Bunnie
To	Gunner

There are definitely projects that will be able to fabricate chips in quarter micron to 130nm range, those types of fabs are getting depreciated enough, so I could see small-scale fab happening there – but you can't do a microprocessor that's going to do a good job of running a server.

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It's an open question with the FinFET barrier, it's a completely different process, not a lot of people do it, and that knowledge to mass-fabricate these chips at good yield isn't common in (e.g.) academia yet. So, I think down to around 20nm – the FinFET barrier – there is a reasonably good chance someone will do an open PDK. Especially if there is an industry downturn. When a foundry is a bit empty, they might be open to it; that might be conceivable.

From	Gunner
To	Bunnie

What public benefits do you see in open hardware?

From	Bunnie
To	Gunner

I do have a strong agenda along that line, a bit of a manifesto around the idea.

There is a quote, “Any sufficiently advanced technology is indistinguishable from magic.” I worry that if people believe tech is magic, we become slaves to it, and then we don’t think we can fix it ourselves. For example, with Apple’s “Genius Bar,” you can see the religification of hardware, a.k.a. brand loyalty. I’m not saying people have to know how to design a circuit board. What they need to know is it’s a thing humans design, not gods. The reason it’s important to talk about open source hardware is not because everyone needs to get a screwdriver, but because everyone needs to know someone in their immediate social circle who understands technology. If tech knowledge gets so diluted that you don’t know someone who knows someone who knows the tech, it does start to become “magic”.

From Gunner
To Bonnie

Mozilla is focused on internet health and keeping the web as open as possible. What are your thoughts on how a healthy internet will depend on or benefit from open hardware?

From Bonnie
To Gunner

The layers between the internet and hardware are pretty far apart.

Can you imagine a world where the hardware is open, but the internet is still a dystopia? Yes.

Can we imagine a future where if someone cornered the market on all servers, they then enact terrible internet policies? Yes.

I think it’s necessary, but not sufficient. I do think from the standpoint of, if you were to go to a place which is extremely oppressive or heavily surveilled, then perhaps open source becomes much more important as a worst-case backstop, then open source hardware is your parachute.

The thing that saves the internet is primarily going to be internet policy, backed up by a healthy and diverse open source ecosystem.

From Gunner
To Bunnie

What are the biggest threats to internet health posed by non-open hardware? How big a threat is 5G?

From Bunnie
To Gunner

From the standpoint of privacy, transparency, and trust, the ability for governments to control the infrastructure entirely and read and manipulate data, that's really problematic. Again the problem is even if your hardware was open, they could still co-opt the server. There could be a convention where there is open source hardware that only runs a signed distro of Linux that is known to be reliable, but even then...

From Gunner
To Bunnie

How should we model trust with our devices? How can open hardware help us protect our private data?

From Bunnie
To Gunner

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I have a project, betrusted.io, it's basically that. I would like to build a hardware ecosystem that brings verifiability back into the ecosystem, simple systems that protect activists and journalists as well as every day people who want more trustworthy banking. I do think that open hardware can provide that service.

From Gunner
To Bunnie

What have you learned in running an open hardware business and offering open hardware devices for sale? Where does the demand come from and what are your thoughts on how to broaden that demand?

From Bunnie
To Gunner

I've learned there is an interest in open hardware — a core group who believe. Which is the only reason I continue doing what I do. From a business standpoint, you have to be realistic, you are not going to hit Apple's scale.

Because hardware cost is so intimately linked to the scale of your production, at the cost levels you can achieve, you have set realistic expectations about what a sustainable business looks like.

While there's definitely a group of people, it's still small. With the Novena laptop, after launching it was clear the market is small and not large enough to run a business off of. So we decided not to do a Novena 2. Knowing when to stop is key; where things go bad for open hardware is when people over-invest. Then they have to make hard decisions, and the circuit boards layouts come off the table because you can't afford the competition.

If you are going to call it open hardware, you have to be open hardware about it, and give the circuit board layout. You have to accept someone is going to clone your idea — that's the whole reason for doing it. Some days you are being cloned; other days you are the cloner. You have to be realistic, you are moving a huge cargo ship and you don't do it on a dime.

The good news is, I'm finding that the ecosystem of open hardware is growing. I'm buying open hardware tools and test equipment to build open hardware. I'm buying other people's open hardware modules and integrating them into mine. You are starting to see that happen. It's such a good feeling to no longer be alone.

Yours to Write

WHERE DOES THE COMMUNITY GO FROM HERE?

— INTRODUCTION —

The work for a healthy internet isn't done yet - so what does our community envision when they look ahead to the next ten years of the festival and the internet health movement? Where do we go from here? There are many paths the future offers the digital world - which one we choose will shape the festival and the web for everyone. For this chapter, we asked the community to share their thoughts on:

- The Future of Internet Health. What do you hope the internet will look like in 10 years? What do you foresee being the five biggest issues affecting internet health over the next decade? How will your work contribute to the health of the internet?
- Your Internet Health Story. How do you identify with the internet health movement? Why is it important to you? What will you do in the next ten years to participate in the movement?
- The Future of AI. Why is building Trustworthy AI important for the future of the internet? How do you see AI impacting the internet health movement in the next ten years?

From the dozens of essays we received in response, we choose five that represent our community well. Read on for what they had to say...

AUTHOR



Anisha Fernando (Australia)

— BIO —

Dr Anisha Fernando is a lecturer at the South Australian Institute of Business and Technology (SAIBT, in partnership with the University of South Australia – UniSA and Navitas). She has a PhD in Computer and Information Science from UniSA. Anisha's research focuses on the social impact of technologies on people's lives concerning data ethics, privacy, social innovation and technology design. She collaborates on data ethics research initiatives with communities and is passionate about science communication. Her work includes 'The Private Lives of Data' for South Australia's National Science Week 2018 and a conversational card game to empower people with data ethics literacy skills.

TITLE

Can The Digital Future Be Our Home?

— THEME —
Future of Internet Health

“Home is where we know and where we are known, where we love and are beloved. Home is mastery, voice, relationship, and sanctuary: part freedom, part flourishing ... part refuge, part prospect.” “We can choose its form and location but not its meaning.”

(Zuboff 2019).

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These inspiring words from Shoshana Zuboff in her masterpiece, *Surveillance Capitalism*, raise many questions on whether our digital future can be a place we can call home.

Our lives in the 21st century are tightly intertwined with the internet and the myriad of data services, processes and technologies that call the internet its home. We give birth to our digital selves from our very first interactions — an online search, an email perhaps. Yet we encounter the difficulties of seeing our data selves, our digital identities in action. It’s almost like we need a wayfinding map back to the homes our data selves live on the internet.

In the next 10 years, my hopes for the internet rest on these desires, raising more questions than answers. Can we make our data more visible to us? We already know that most people don’t understand the extent to which their data is used online. How can people trust apps and interactions they don’t quite understand?

Trust is not the value implied here, but faith. And our faith in the organisations owning and managing these technologies dips a little bit every time we hear of the next cyber hack or when datasets are exploited, with little accountability and integrity in action.

Can we explore ways to meaningfully interact with products, processes and services that use our data?

We know it's not reasonable to expect consumers to read pages and pages of terms and conditions, and yet it is the default standard. We know the dangers of solely valuing interactions which drive the most clicks. Yes, these actions may make money, but overly relying on money as the sole purpose of each interaction online is unhealthy because we risk monetary value becoming the default online social norm. These unhealthy social norms incentivise and drive behavior like creating spaces for filter bubbles and polarised views, misinformation, disinformation, fake news, technology addiction, social isolation, trolling, bullying and even technology-mediated suicides.

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Can the algorithms work for us too? Algorithms are great at uncovering new value computationally from disparate datasets. We find value in the meaning they provide when making decisions in critical contexts, while generating monetary value for the organisations that create and own them. The key premise of algorithms is efficiency. Algorithms optimise data for decision-making that we previously did not have before. But humans are not efficient. We are messy and inherently flawed, which makes us human. We value serendipity, community and experiences, which may not be efficient but is impactful.

While there are many efforts underway to connect us to our data selves and digital identities, to explore ways to meaningfully interact with data-driven technologies, and to investigate how algorithms can work for social good, we still need to grapple with some key questions. How can we call the internet our home? What kind of future home do we want for ourselves and future generations on the internet?

These challenges we encounter are human issues, driven or mediated by technology. MozFest is a great space for raising awareness on these challenges and experiencing the diverse efforts addressing these human problems. MozFest celebrates the diverse nature of what makes us inherently human and puts the communion back in community, with its belief in solidarity, community building and empathetic empowering change. My MozFest 2019 experience offered me a space to call home as a researcher running community programs in data ethics. I raised awareness on data ethics literacy issues, and offered participants opportunities to encounter value tensions in practice (an ethics tool from value sensitive design) and obtain co-design input into a data ethics literacy card game. In the next 10 years, I'll be contributing to the efforts in making data ethics literacy accessible to people of all backgrounds because our data is about us. 21st century life is powered by data, and people need literacy skills around creating, using and managing their data with integrity.

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How will you join in on efforts to make the internet your home too?

This piece is inspired by the work of Shoshana Zuboff. Quotes are from Zuboff, S. (2019). The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power. New York: Public Affairs.

AUTHOR



Virginia Poundstone (U.S.A.)

— BIO —

Virginia Poundstone works on the content strategy for the free knowledge art and cultural heritage project Mhz Curationist as the Content Curation Director. Prior to joining the MHZ Foundation she was an art educator at Parsons, MICA, and Columbia University where she taught courses about making things by breaking down systems to build improved structures. She is an artist, a Pollock-Krasner grantee, and a member of the cooperatively artist-run gallery Essex Flowers in New York City.

AUTHOR



Garrett Graddy-Lovelace (U.S.A.)

— BIO —

As Associate Professor at American University's School of International Service in Washington DC, Garrett Graddy-Lovelace researches and teaches agricultural, environmental, food, seed, land, and data policy from the perspectives of critical geography, political ecology, and community-based methodologies. She works to advance free knowledge, open educational resources, and decolonial digital co-curation, as an educational advisor to MHZ Foundation's Curationist.

TITLE

Future of Internet Health

— THEME —

Future of Internet Health

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If the goal is just to heal the internet, we have already lost the game. In ten years, the medium of the internet may be experienced as a contact lens or something even more intimately cyborg. With so much unknown, we posit a healthy future in terms of its collective substance—its cultural content—that is equitably, ethically, and sustainably formed and reframed.

When we look at the internet today, we see a syndrome. A hegemony built on algorithms that amplify, instead of remedy, the limits of our knowledge. We must hold tight to the agency and potential of our sacred non-artificial intelligence. We need to heal ourselves, with the help of the internet.

But first, to lay the groundwork: in the most basic terms, as thought-partners, we are an artist and an academic. One of us is a deeply urban person, the other more rural. We are Americans and are also both cis white women trying to raise families and stay in the middle class. With awareness, we are working from our layered identities as both oppressor and oppressed to envision a radical internet that is healthy because it facilitates a relational worldview where many worlds unfold in conversation. This is not a utopian Y2K reboot, however. It is an approach

to make space for a future that has a future. So, how do we get past our collective syndrome?

The original metaphor of the worldwide web conjures a spider's central omniscience, its concentric patterning — its predatory hunger. But the internet has instead built itself on a rhizomatic structure. Billions of us now weave ourselves together, and apart, in tangled lines and knots of desire, fear, nourishment, and capture. The present predicament was foreseeable, and now here we are — squirming in the syndrome — tangled in sticky threads of the worst of humanity. How do we think productively about this collective problem?

Decentralize the internet? Yes, please! Data self-determination? Sign us up! Sustainable monetization? Let's collaborate! Can we also rehumanize? Can we reconceptualize the dehumanizing tech speak of users and eyeballs? Would thinking of ourselves and each other as visitors, members, or actual — not aspirational — communities help us heal? How do we make space for relational world views when code is binary, and discoverability is hegemonic?

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Already underway, indigenous communities the globe over revive native languages online, chronicle creation stories, advocate for territorial sovereignty to defend land and water for all of our benefit. African diaspora movements organize for Black Lives and thus our collective liberation. Free how-to videos reskill youth in pragmatic knowledges long devalued in formal, overpriced education. Within this decolonizing vision of collective healing, the internet stands as crux. Not as a mechanism of extraction and abstraction, but as a decentralizing means of re-grounding in real life. These beautiful uses are happening, but authoritarian spiders continue to surveil to control. How do we escape this echo chamber?

We believe that the site specificity of place-based knowledge, culture, and politics re-grounds the internet, daily. This manifests in a digital realm as a foundational layer of knowledge. Place-based art, grounded know-how

are ironically, still the best ways and reasons to communicate across time or space or domain names. But digitizing can further decontextualize culture and art, further displace lineages and traditions, further alienate creative modes. We need open access, open knowledge platforms that re-ground online gems, that piece together the layers of lost context and latent significance. Can co-curation add meaning through nuanced layers of metadata? Could a platform gather contributions from communities of artists, scholars, and the public at large, collaboratively curating content that reflects our cultures, and the places and contexts that give them life? In concert, in dialogue, in civic debate if need be. Can this happen with a keen understanding of who really benefits, so the prosperity is actual instead of neo-colonial?

How do we cultivate the alliances and funding needed to advance anticolonial digital visions and work, together? How can we facilitate healing through a relational worldview where many worlds fit and find each other in conversation, in creative co-curation? How do these worlds become relational within this one large sticky, tangled web? Are we, and the technology sector as a whole, asking the right questions?

AUTHOR



Uffa Modey (Nigeria)

BIO

Uffa Modey is the Executive Director at Digital Grassroots. Her focus is to explore and define avenues through which telecommunication infrastructure, policy and standards that support global sustainability may be developed. She designs and leads community engagement platforms to address internet-related issues in underrepresented societies through digital literacy, networking, and activism. Uffa is an expert online trainer on internet governance at Internet Society and the coordinator of the Nigeria Youth Internet Governance Forum.

TITLE

I Know My Role. What About You?

— THEME —

My Internet Health Story

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Let me start by telling you a little bit about where I come from. Growing up in my corner of the globe in 2019, is quite exhausting. You are faced daily with numerous cases of societal inequalities, injustice and corrupt governments which makes access to basic human amenities seem like luxury. A couple of years ago, I felt helpless. I felt like there was nothing I could do to contribute to building a better life in my community.

Since the introduction of internet technology in Nigeria in the late 90's, the country has become more web literate and dependent on the web for day to day activities. This is very good for our development. However, a significant percentage of the country's population still remains unaware of the core values of the network. They approach the technology as just consumers with little or no contributions towards developing or advocating for principles that uphold a healthy online ecosystem.

I was a part of this percentage until 2018, when I came across the internet health community through the Mozilla Open Leaders program. You see, the greatest challenge to the participation of individuals, especially those from developing regions, in the internet health movement is the lack of awareness on the subject matter. Through the Mozilla

Open Leaders program, I connected to an extremely resourceful online community of activists and technologists who are dedicated to ensuring a healthy experience online. I learned about working open, community driven projects and collaborations. It was amazing! Suddenly, I did not feel so helpless anymore. I had connected to a vibrant network and was able to access proper knowledge on internet health, which I passed on to members of my community.

There was always something to learn or engage with in the Mozilla community. The best part was that it was very easy for me to remain up to date with information. The *@mozilla* and *@MozOpenLeaders* Twitter handles made the latest news on internet health globally very accessible. And there was MozFest too! Oh MozFest!! MozFest!!! Never have I attended a conference so accommodating and inclusive. I facilitated a session in 2018 and 2019 MozFest in the Youth Zone and Digital Inclusion Space respectively. Again, this was huge because I was able to share and get quality feedback on the work I was doing to promote internet health in local communities.

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2019 MozFest was quite special for me. My colleague and I, Esther Mwema, launched our Mozilla OLX project on Open Advocacy for the Internet Health Report at the Moz OLX Launch party in the MoZone. This program commenced in February 2020. It is a 6-week program aimed at equipping youth from underserved communities with the skills required to design and lead open projects for raising awareness on the Internet Health Report within their community.

As the world moves towards the digital future, we all have a role to play in ensuring that the internet does not break. It has to remain healthy. A broken internet will be one where there is no inclusion, privacy or security, openness, decentralisation or web literacy. Experiencing a broken internet will definitely not be a bed of roses.

Right now, everyone enjoys the web and new and emerging online services that are developed daily. But what happens

when healthy internet principles are not being upheld in society? This will take the form of internet shutdowns, monopolization of online services by tech giant companies, infringement of human rights online or online marginalization of people based on their race, gender, sex, age or socio-economic status.

I know that there are more people like me out there. People who are passionate about shaping their digital future but need support to engage their community. I plan to provide this support for them to join the internet health movement. I ask you all to join me. Together, we can create a greater impact on the internet health community in the next 10 years by expanding the reach of the community. Let us spread awareness on internet health. All internet citizens must understand the threats to a healthy internet and how to deal with it.

Where do we go from here? The future. Our future. One where we are all responsible for creating the healthy internet we desire.

AUTHOR



Vanja Skoric (Croatia)

BIO

Vanja Skoric is Program Director at European Center for Not-for-Profit Law (ECNL) and civil society activist working on enabling environment for civil society, civic participation and empowering activists to exercise their rights and freedoms on all levels. She is also one of the founders of the Solidarna Community Foundation in Croatia. Vanja holds a Master of Laws (LLM) degree in Public International Law from the University of Amsterdam.

TITLE

Do You Trust AI To Decide On Your Rights?

— THEME —

Future of AI

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Yesterday, the authorities banned another protest announced by the group Rouge One. This is the second time that an announced protest has been banned due to “fairly accurate prediction of violence during the protest” by AuRii – a new government’s algorithm for predictive analytics. AuRii has been analysing tweets about the announced protest in the last 24 hours and its verdict seems clear – there is 86% chance of violent clashes. Activists are appalled by its decision, calling for investigation into how AuRii makes such predictions. In addition, it seems that bots and fake accounts posted most violence-related tweets, pointing to an organized sabotage. Despite public outcry, authorities claim they can’t disclose the analytical works of AuRii.

If you haven’t heard of AuRii, don’t worry – this news is fictional. However, its premise is becoming increasingly likely, as more algorithmic systems enter into public decision-making. In a study by the Zea Mays Center for Computational Linguistics at the University of Illinois, moralization in social networks and the emergence of violence during protests, using data from 2015 Baltimore protests, the authors created an algorithm that can predict a link between tweets and street action – hours in advance of violence. Such predictive analytics can have various

impacts on our rights to express and assemble — it can be used by the police to plan for disruptive events and divert them, but also to sabotage legitimate public activism and expression, or silence dissent. To what extent can findings generated from algorithms be used as conclusive evidence to restrict freedoms and rights?

We learn daily about examples of algorithmic systems for decision making, from facial recognition surveillance for the purpose of establishing “good credentials” to automated risk calculation models on welfare and other benefits that deter activists. No one knows exactly how these can impact our freedoms and rights. Council of Europe, an international human rights organisation, recommends appropriate legislative, regulatory and supervisory frameworks related to algorithmic systems as a responsibility of states, as well as conducting thorough human rights impact assessments for each system at every stage of development, implementation and evaluation process. In addition, systems designed by private companies for public use need to have transparency safeguards included in their terms of reference. We need an algorithmic “white box”.

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To find solutions, a merger of knowledge, experience, ideas and peer connections by diverse groups is needed — including lawyers, tech experts, activists, academics. Several actions should go in parallel, to ensure protection and promotion of Trustworthy AI:

- First, we need more insight into how algorithmic systems are designed and used, to understand their impact on rights and explore possibilities to use them for good. This can be done by creating a crowdsourced platform on the “trust in AI systems for civic rights” to channel information on ways technology and algorithmic systems are used by governments, companies or organisations on rights of association, assembly, expression, participation. Learning can be mapped to inform policy advocacy actions. Research on technological

solutions, individual actions and navigation tactics can help create practical guidelines to protect and promote these rights.

- Second, we need to address how to practically ensure human rights centred design of algorithmic systems. According to the University of Birmingham research team, such design means that algorithmic systems will be human-rights compliant and reflect the core values that underpin the rule of law. It entails systematic consideration of human rights concerns at every stage of system design, development and implementation. The research team proposed translating human rights norms into software design processes and software requirements. Developers seem to become ‘moral guardians’ of our rights – but they are not always aware how the solutions they develop may be purposefully manipulated or inadvertently used to stifle rights and freedoms.

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- Finally, there is a need for consistent, meaningful and transparent consultation with stakeholders, including civil society, movements, academics, tech community, and media. In particular, the needs of vulnerable groups should be heard, ensuring that impact of algorithmic systems can be monitored, debated and addressed.

We must develop broader knowledge-building networks and exchange learnings on practical implementation. As a community, we can apply a forward-looking approach and map, explore and unpack these issues. It requires overcoming traditional forms – to collaborate more outside our silos and across specialised fields. Join us in this effort!

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TITLE

Artificial Intelligence and Internet Health in Africa

— THEME —

Future of AI

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Although AI has been theorized for decades, practical and widespread uses of the technologies were only realized in the current century. As with prior technologies, and especially in the last few years, evidence of a trend towards a renewed version of the digital divide can be found. African countries ranked very poorly in a recently released report on the readiness of governments to adopt and adapt to AI (although this is, at least in part, attributable to the lack of updated information that is found on the websites of many African governments). Uptake of AI in Kenya is likely to be greatest, initially, in the more profitable sectors such as banking and telecommunications, but generally lags behind other regions.

The availability of open source AI tools is certainly a benefit to developers on the continent. Toolkits are available from global technology companies and are popular among Subject Matter Experts and startups. It has been theorized that AI will be a force for democratization (of technology, access to information, etc.), and this idea is supported by the widespread availability of open source AI tools. The theory assumes, however, that open source AI algorithms released by global tech companies are effective and competitive with AI algorithms in active use by those and other leading companies.

There are many examples of African companies, universities, and individuals developing AI-based tools and products. The concept of democratization through AI may, however, be premature or unrealistic in the context of African countries. Successful development of AI-based products generally requires large datasets, and Africa has been called a “data desert.” Biodiversity on the continent is high, but genetic databases cataloging such biodiversity are few. Climate change will affect Africa at least as much as other continents, but few countries have dedicated satellites for collecting weather data. It is therefore in the disparity of available data where the divide between implementations of AI in Africa and those of other regions will be most greatly observed.

An unfortunate exception to the data desert is in data pertaining to personal identity. Many African governments are currently implementing digital identification (ID) systems, and in the process, collecting vast amounts of data about their citizens and residents. Such data is valuable for AI algorithms and can be obtained either through leakage (i.e., data breaches) or, sometimes, through official channels. The Government of Zimbabwe, for example, recently sold a data set containing facial images of Zimbabwe citizens to a Chinese company seeking to improve a facial recognition AI algorithm. The ability (or inability) to control data through law or technology is a barrier to ethical implementation of AI.

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A further substantial barrier to implementation of AI projects in some parts of Africa is the lack of trust in automated systems. In Kenya, for example, ATMs are disfavoured, as most individuals would prefer to carry out banking activities with a human. This preference grows stronger where technology and devices are more opaque, or are developed outside of the country. For the benefits of AI to be realized, then, a change is required in such cultural preferences. Alternatively, AI must be implemented in ways that are invisible to the ordinary user.

This, then, presents a contradiction. In order for AI to benefit internet health in Kenya and like-minded places,

it may be best for it to be a technology operating in the background. But AI operating in the background implies that end users are less aware of the use of the technology, which contravenes the principle of openness that is the foundation of internet health.

Ultimately, hiding, obscuring, or downplaying the use of AI will only strengthen the distrust of automated systems. The solution can only be found in greater levels of transparency. It is currently up to the private sector to disclose their uses of AI and sufficient information about the AI such that those uses can be evaluated. The national and international governmental bodies in charge of internet health should investigate a suitable, contextualized legal or policy framework to further encourage appropriate levels of transparency.

Thank you by Sarah Allen

We shared at the start of the book, the festival is nothing without our community, so we asked them to help us write this book and to share stories from their reflections. Thank you to everyone who sent us their festival memories, shared photos, answered calls for help, and raised up people to tell this story. Huge appreciation to everyone who reviewed drafts of chapters, helped identify people in photos, chased contacts, and forms, and gave nods of encouragement throughout the journey. The beautiful photographs come from many sources, but most notably Paul Clarke and team, Erik Westra and Connor Ballard-Pateman.

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