10 Years of Activism, Community, and Collaboration

10 Years of Activism, Community, and Collaboration

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 news-room leadership to be more equitable, inclusive, and really, to operate in whole new ways?

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

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?

Sherry Lorance
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.

———————————

MOZFEST

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.
──────────

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?
──────────

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.
──────────

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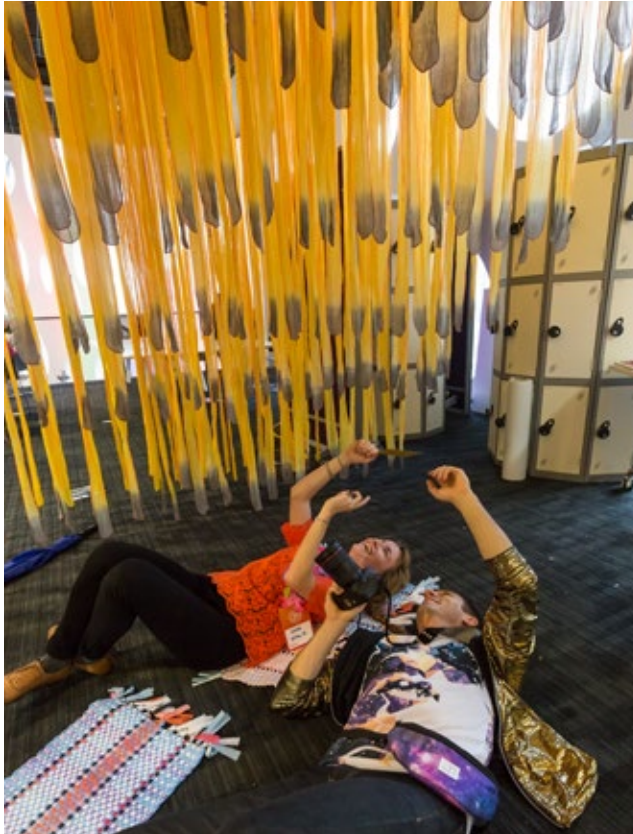
UnBox, part of Quicksand Design Studios in India, created the Banyan Tree installation at MozFest 2015, (within the Global Village) as a space to share thoughts, build projects, and collectively explore the future of a connected village.

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.

> *"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 channeled the permission-giving voice of Moz-Fest 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.

48
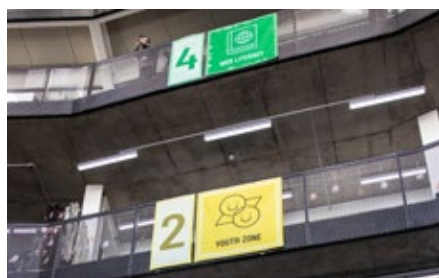
<u>C</u>

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.

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 brainstorms 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.

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.

—————————

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 see-
ing what could be achieved from
the equal footing of participants
and Facilitators vs. the talking
head model of academia.

—————————

Nick Kaufmann
2013
Attendee

I never got the sense that some-
one'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.

—————————
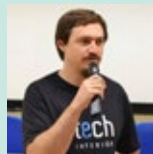
Felipe Do E. Santo
2018
Facilitator

MozFest is the most remarkable
event I have ever participated in.
What makes MozFest different from
other events is the unique atmos-
phere 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

MOZFEST

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 sur-
prised MozFest was so different.
A Session called "Smashing the
Patriarchy" - need I say more!

—————————

Su Adams
2016
Wrangler

The people, the buzz, the experienc-
es, 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!
──────────

Dom Pates
2018
Attendee

MozFest was unlike most other
events I'd ever been to, from
experiencing submitting a pro-
posal 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!
──────────

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.
──────────

4/14

Kristina Gorr
2017
Staff

I'm always impressed by how
MozFest not only welcomes every-
one, but goes out of the way to
invite and encourage partici-
pation 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 plat-
form 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 par-
ticipant engagement at MozFest.
──────────

<u>D</u>

Ethical Dilemma Café

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

Within the notions of net-neutrality and the recent revelations from Edward Snowdon 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.

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.

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 CAFA

2) BY ~~CROSSING~~ THE WHITE LINE ^OR READING THIS NOTICE YOU AGREE THAT THESE TERMS ARE ENACTED AND WILL BE ENFORCABLE NOW AND IN PERPETUITY

3) THESE TERMS ARE ~~UNIVERSABLE~~ 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 MANAGEMENT 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.

E

Open Science: Spurring Discovery And Innovation Worldwide

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

59

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.

———————

Sakthi Anand
2018
Facilitator

We have never had the opportu-
nity 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.

———————

MOZFEST

Jyotsna Gupta
2018
Attendee

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

———————

Sethu Sathyan
2018
Facilitator

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

————————————

Kevin Zawacki
2017
Staff

The people, the projects,
and the purpose.

————————————

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.

————————————

Jenine
2016
Volunteer

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

————————————

Vipul Gupta
2018
Facilitator

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.

————————————
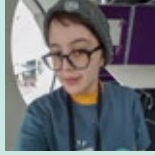
Anna e só
2018
Facilitator

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

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.

———————————

<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.

———————————

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.

———————————

MOZFEST

STORY ENGINE QUOTES

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."

————————

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."

————————

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;
Irini 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

FEATURING

parapara daisuke shinichi moziila japan / serendipdoodle amy burwell / push selfie allison hauser / TATE digital studio lara damian / turtle power forrest oliphant / gabrielle salvador thame wilson theta / popathon philo van kemenade giles pradeau / data shadow puppetry stephen fortune / when we switch to our fully digital lives / threadless interactive storytelling joelle fleurantin / exquisite corpse visual stories melanie guy / crash open the TV tracey jaquith internet archive / using just to change form jo pugh musical martial arses mr key lapped sea kaiko christina holm saito university europeana guild art ed / portrait of a creative commons artist jan pas creative commons / designing web bots v minecraft ana isabel carvalho ricardo lafuente manufactura independente / mapping design contributors cassie mcdaniel moziila webmaker / moziilia GLAM rodney jamie ross kasper / synecology an&el hkpec / net art anatomy scott mehaffer mitch / hack track lasix @codezar @archiville @matebon

getting hands dirty

will be encouraged...

WE INVITE YOU to floor 2

#ARTOFWEB

SEE YOU THERE

hacking
curating
building
designing
music making

TOGETHER

hello, world:

what is OPEN ART?

WE ARE ALL CREATIVE

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 high-light 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!

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!

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.

73

QUEERING
MOZFEST

Drawing on a queer perspective, explore
how internet issues intersect with
gender, sexuality, and the processes of
normalisation and marginalisation

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.

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 LGBTIQA+ 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.

Chosing 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.

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 meetups, 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*

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?

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 stimu-
lating than my formal academic program.
MozFest and the open source community are
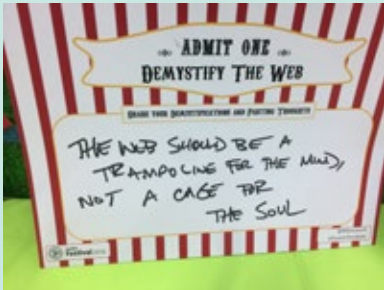where my real education began.

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.

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!

————————

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 Volun-
teer wheeled me around, shouting 'Free
The Open Web'. There were a lot of
people taking photos of us.

————————

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!

————————

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 immer-
sive 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.

"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.

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.

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

91

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.

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!"

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 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. :)"

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 work-
shop happening in Spanish. Both the
Facilitator and the audience where
Spanish-speakers. It was a simple but
powerful moment.

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.

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.

Teon Brooks
2016
Attendee

JayaPreethi Mohan
2017
Facilitator

I became a MozFest Facilitator when
I was 19. With so much of fear and con-
fusion, 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.

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.

MOZFEST

Elena Vilimaitė
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.

───────────

12/14

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!

───────────

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 Seymore 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.

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 where 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.

Jess Kelin

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.*
>
> *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 indi-
viduals 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.

·   *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 Tutcher

105

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."

<div align="right">Priyanka Nag</div>

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.

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.

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.

───────────

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.

───────────

Laura Hilliger
2009
Attendee

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.

───────────

13/14

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 teach-
ing 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.

───────────

MOZFEST

───────────

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 educa-
tors 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, plan-
ning 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 mak-
ing sure I get stuff that comes out
of it to enable me. I just dis-
covered that this week something's
shifted in me. It's been amazing."

————————

STORY ENGINE QUOTES

GEORGIA BULLEN
https://storyengine.io/georgia-bullen/

"That's one of the things that I real-
ly 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 sim-
ilar 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."

————————

PopcornJS

**by Ben Moskowitz; Bobby Richter;
Open Video Community**

The first Mozilla Festival was held in Barcelona in 2010. That same year, video became a "first class citizen of the web" with the introduction of the HTML5 video element in Firefox 3.6.

Before HTML5 <video>—open web folk like to say—video on the web was a "black box." Video playback depended on proprietary plug-ins like Adobe's Flash or Microsoft's Silverlight. There was no universally supported way for a webpage to talk to a video, or for a video to manipulate a webpage. This limited creators' freedom to explore the potential of interactive video, and slowed the broad uptake of that medium for creative storytelling.

Also in 2010, filmmaker Brett Gaylor joined with Mozilla to experiment with what might be called "the filmmaker's HTML5 video toolkit." Gaylor, in collaboration with Professor David Humphrey, a long-time Mozilla contributor, spent weeks imagining and prototyping new functionality for web video creators; tools and tropes for storytelling that are only possible when video is woven into the fabric of the web. A video that can trigger actions on an interactive map; a video that can dynamically incorporate tweets and other data, mise en scène; Gaylor and Humphrey imagined these and other clever uses of the HTML5 video API, rolled them into a Javascript library, and called it Popcorn.js.

Their first Popcorn.js demo, ugly but full of promise, debuted at MozFest in November 2010. Here's what happened in the field of open video since.

2010

HTML5 video is introduced in Firefox 3.6.

LTR: Brett, Nick, Scott, Anna, Daniel Hodgin

Mozilla hosts a filmmaker, a computer science teacher, his students, and an intern from Bocoup at their Toronto office. Video evidence of how far Mozilla's interior design aesthetic and gender parity efforts have come (sorry three Mikes!). This motley crew created the first Popcorn.js demo—sadly lost to the dead links of time.

Dave Humphrey, Brett Gaylor run a **Video Lab** at the first Mozilla Festival, creating a prototype for what would later become Popcorn.js. Locked in a room were Gabriel Shalom, Laura Hilliger, Laurian Gridinoc, Mark Boas, Berto Yanez, Ben Moskowitz and others, who all brought unique takes on hypervideo and would continue to iterate on the form after the first MozFest.

2010

Mozilla hires Bocoup to work on Popcorn.js API design and to work with students from CDOT.

Bocoup sketches new API design for Popcorn.js that draws on experience working on Prototype.js, jQuery, Dojo, YUI.

Bocoup develops **Butter**, a prototype that later becomes Popcorn Maker.

Development continues on Popcorn.js, with regular releases and a growing demo gallery. Popcorn begins to power interactive video experiments in news, documentaries, and art projects.

2011

Mozilla teams up with PBS to offer an interactive version of Obama's 2011 State of the Union address.

Popcorn.js 1.0 launches at Mozilla Festival.

One Millionth Tower — a unique Popcorn-powered web documentary premieres at the Mozilla Festival in London and online at Wired.com.

Henrik Moltke and Mark Boas explore the potential of hyperaudio and timed transcripts, with **RadioLab** and other partners.

Development begins on Popcorn Maker, a web app that makes it easy for people to make interactive videos without needing to write a lick of Javascript. Development is led by Bobby Richter, an audiovisual engineer from the demoscene. Youth mediamakers at BAVC are invited to help design and test the software, under the guidance of filmmaker educator Jason Jakaitis.
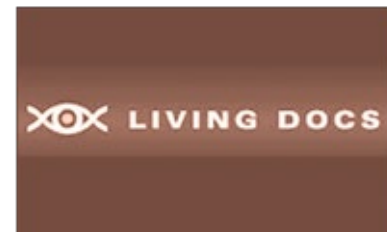
2011

2012

Mozilla and BAVC launch **Storycamp**, a media literacy MOOC with dozens of participating youth media centers.

Mozilla, ITVS and Tribeca team up to form the **Living Docs** project, a series of hack days and co-productions around web-based documentaries.

Mozilla COO **Ryan Merkley delivers a talk at TED Global** about the soon-to-be-released Popcorn Maker.

With a well-timed f-bomb, **Popcorn Maker is launched at MozFest 2012.**

2013
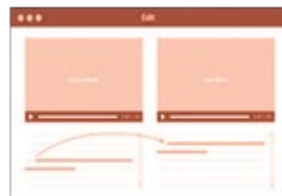
The Hyperaudio Pad is released. The idea for the Hyperaudio Pad came from a very strange place: Mark Boas' head. Mark's Hyperaudio Pad enables users to copy and paste from "hypertext transcripts" in a familiar text-editor interface, automagically creating edited compositions. Hyperaudio later becomes a startup and Open News Fellows Laurian Gridinoc and Dan Schultz join the team.

Ben Moskowitz hosts Storytelling Innovation Lab with Tribeca Film Institute in New York City. The Lab invites seven filmmaker teams and over 30 designers, developers, and technologists to sketch concepts of how to use the web for more effective social-issue storytelling. Each team produces a complete storytelling project, from concept to code, in just five days.

Internet Archive's TV news archive uses Popcorn Maker technologies to let viewers copy, cut, and paste TV news clips.

Philo van Kemenade and Gilles Pradeau host Popcorn Maker and Pop-a-thon events in London.

2014

A team from the Broadcasting Board of Governors launches KettleCorn, a fork of Popcorn Maker made specifically for journalists working in newsrooms.

Innovators like Joscha Jager and Pietro Passarellli press the limits of hypervideo with experiments like FrameTrail or AutoEdit.

At MozFest 2014, Mozilla announces that development on Popcorn.js and Popcorn Maker will wind down.

BBC R&D carries the torch on object-based media, with a new Javascript library that takes advantage of the advancements in browser technology and power. Originally called the HTML5 video compositor, and later renamed and updated to the VideoContext Library, both libraries used Popcorn.js and seriously.js—and other MozFest origin technologies—as inspiration.

The Internet Archive becomes the spiritual home of Popcorn Maker.

2015

Popcorn Maker is sadly shut down.

With support from Mike Nolan and Brion Vibber, Popcorn Maker is re-factored as a client-side library called "Popcorn Editor." This proof-of-concept enables later work to bring web-based video editing to Wikipedia.

Brett Gaylor releases **Do Not Track**, an personalized film about web tracking, that rolls up 5 years of practice in interactive documentaries.
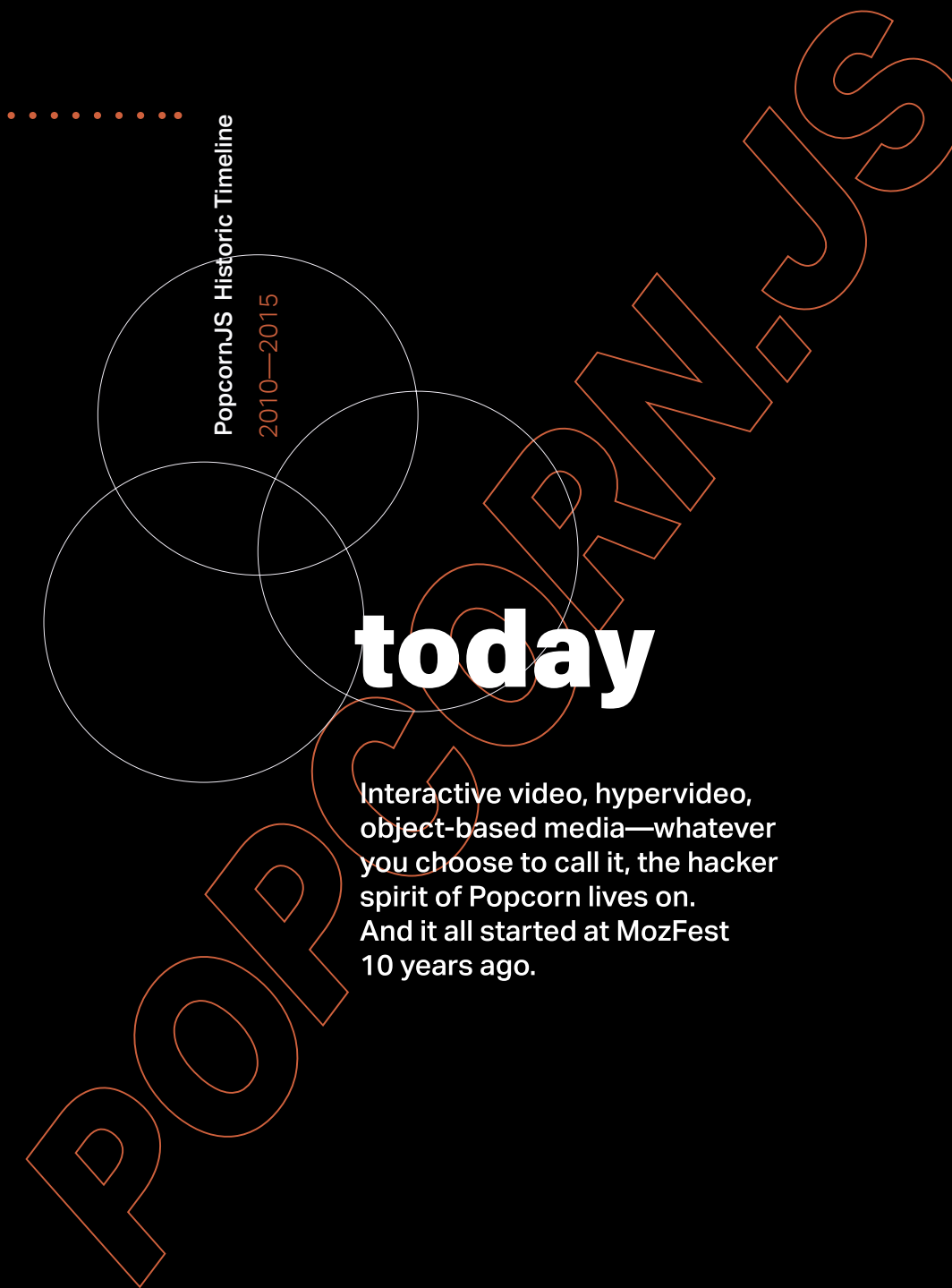
today

Interactive video, hypervideo, object-based media—whatever you choose to call it, the hacker spirit of Popcorn lives on. And it all started at MozFest 10 years ago.

POPCORN.JS

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

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.

openbadges.org

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' 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.
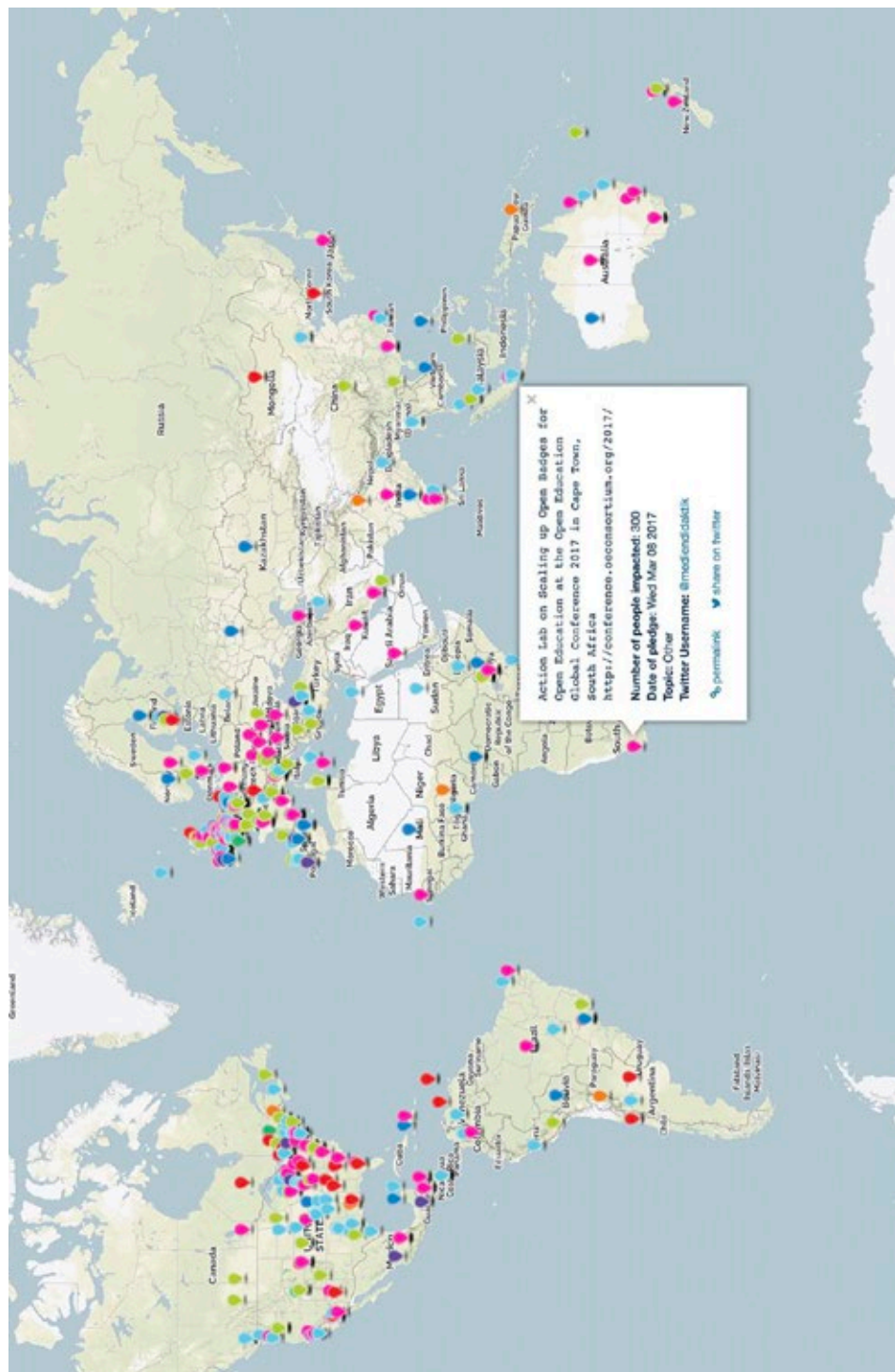
MOZFEST

Image Credit:
Badgetheworld.org

ORGANISATIONS FROM ALL OVER THE
WORLD PIN THEIR BADGE ACTIVITY.