Voice-enabled products are in rapid ascent in both consumer and enterprise markets. The expectations are that in the near future voice interaction will become a key interface for people’s internet-connected lives.

Unfortunately, the current voice product market is heavily dominated by a few giant tech companies. This is unhealthy as it stifles the competition and prevents entry of smaller companies with new and innovative products. Mozilla wants to change that. We want to help opening up the ecosystem. So far there have been two major components in Mozilla’s open source voice tech efforts outside the Firefox browser:

(1) To solve for the lack of available training data for machine-learning algorithms that can power new voice-enabled applications, we launched the Common Voice project. The current release already represents the largest public domain transcribed voice dataset, with more than 2,400 hours of voice data and 28 languages represented.

(2) In addition to the data collection, Mozilla’s Machine Learning Group has applied sophisticated machine learning techniques and a variety of innovations to build an open-source speech-to-text engine that approaches human accuracy, as well as a text-to-speech engine. Together with the growing Common Voice dataset Mozilla believes this technology can and will enable a wave of innovative products and services, and that it should be available to everyone.
Whether it’s from doing things like burning fossil fuels through driving, cranking up the furnace or grilling a steak, we are all responsible for releasing carbon dioxide into the atmosphere, which is called our carbon footprint. When we collectively produce more carbon than the planet can absorb, the extra CO2 contributes to climate change. Even less obvious daily activities add to our carbon footprint, such as using the internet.

While the internet’s data is essentially invisible, it is processed and stored in massive data centers all over the world. Those data centers are powered 24/7, just waiting to send information ? videos, podcasts, music, news, memes, messages and everything the internet offers ? to our digital devices. All that data that we’ve grown accustomed to having fast at our fingertips along with our always-on mentality ends up contributing to our digital carbon footprints.

### WebThings Gateway for Wireless Routers [4]

In April we announced that the Mozilla IoT team had been working on evolving WebThings Gateway into a full software distribution for consumer wireless routers.

Today, with the 0.9 release, we’re happy to announce the availability of the first experimental builds for our first target router hardware, the Turris Omnia.

### MrEd, an Experiment in Mixed Reality Editing [5]

For the past several months Blair, Anselm and I have been working on a visual editor for WebXR called the Mixed Reality Editor, or MrEd. We started with this simple premise: non-programmers should be able to create interactive stories and experiences in Mixed Reality without having to embrace the complexity of game engines and other general purpose tools. We are not the first people to tackle this challenge; from visual programming tools to simplified authoring environments, researchers and hobbyists have grappled with this problem for decades.

Looking beyond Mixed Reality, there have been notable successes in other media. In the late 1980s Apple created a ground breaking tool for the Macintosh called Hypercard. It let people visually build applications at a time when programming the Mac required Pascal or assembly. It did this by using the concrete metaphor of a stack of cards. Anything could be turned into a button that would jump the user to another card. Within this simple framework people were able to create eBooks, simple games, art, and other interactive applications. Hypercard’s reliance on declaring possibly large numbers of ?visual moments? (cards) and using simple ?programming? to move between them is one of the inspirations for MrEd.

We also took inspiration from Twine, a web-based tool for building interactive hypertext novels. In Twine, each moment in the story (seen on the screen) is defined as a passage in the editor as a mix of HTML content and very simple programming expressions executed when a
passage is displayed, or when the reader follows a link. Like Hypercard, the author directly builds what the user sees, annotating it with small bits of code to manage the state of the story.

No matter what the medium—text, pictures, film, or MR—people want to tell stories. Mixed Reality needs tools to let people easily tell stories by focusing on the story, not by writing a simulation. It needs content focused tools for authors, not programmers. This is what MrEd tries to be.

Firefox Reality for Oculus Quest [6]

Following our releases for other 6DoF headsets including the HTC Vive Focus Plus and Lenovo Mirage, we are delighted to bring the Firefox Reality VR web browsing experience to Oculus' newest headset.

Whether you’re watching immersive video or meeting up with friends in Mozilla Hubs, Firefox Reality takes advantage of the Oculus Quest’s boost in performance and capabilities to deliver the best VR web browsing experience. Try the new featured content on the FxR home page or build your own to see what you can do in the next generation of standalone virtual reality headsets.

IRL (podcast): Democracy and the Internet [7]

Part of celebrating democracy is questioning what influences it. In this episode of IRL, we look at how the internet influences us, our votes, and our systems of government. Is democracy in trouble? Are democratic elections and the internet incompatible?

Politico's Mark Scott takes us into Facebook's European Union election war room. Karina Gould, Canada's Minister for Democratic Institutions, explains why they passed a law governing online political ads. The ACLU’s Ben Wizner says our online electoral integrity problem goes well beyond a few bad ads. The team at Stop Fake describes a massive problem that Ukraine faces in telling political news fact from fiction, as well as how they're tackling it. And NYU professor Eric Klinenberg explains how a little bit of offline conversation goes a long way to inoculate an electorate against election interference.

IRL (podcast): The Internet's Carbon Footprint [8]

Manoush Zomorodi explores the surprising environmental impact of the internet in this episode of IRL. Because while it’s easy to think of the internet as living only on your screen, energy demand for the internet is indeed powered by massive server farms, running around the clock, all over the world. What exactly is the internet’s carbon footprint? And, what can we do
Music professor Kyle Devine considers the environmental costs of streaming music. Geophysicist and pop scientist Miles Traer takes his best shot at calculating the carbon footprint of the IRL podcast. Climate journalist Tatiana Schlossberg explores the environmental influence we don’t know we have and what the web’s got to do with it. Greenpeace's Gary Cook explains which tech companies are committed to renewable energy and which are not. Kris De Decker tries powering his website with a homebrew solar power system. And, Ecosia's Chief Tree Planting Officer Pieter Van Midwoud discusses how his company uses online search to plant trees.

- **Upcoming deprecations in Firefox 70** [9]

  Several planned code deprecations for Firefox 70, currently available on the Nightly pre-release channel, may impact extension and theme developers. Firefox 70 will be released on October 22, 2019.

- **QMO: Firefox Nightly 70 Testday Results** [10]

  As you may already know, last Friday ? July 19th ? we held a new Testday event, for Firefox Nightly 70.

  Thank you all for helping us make Mozilla a better place: gaby2300, maria plachkova and Fernando noelonassis.

Moz/FF

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