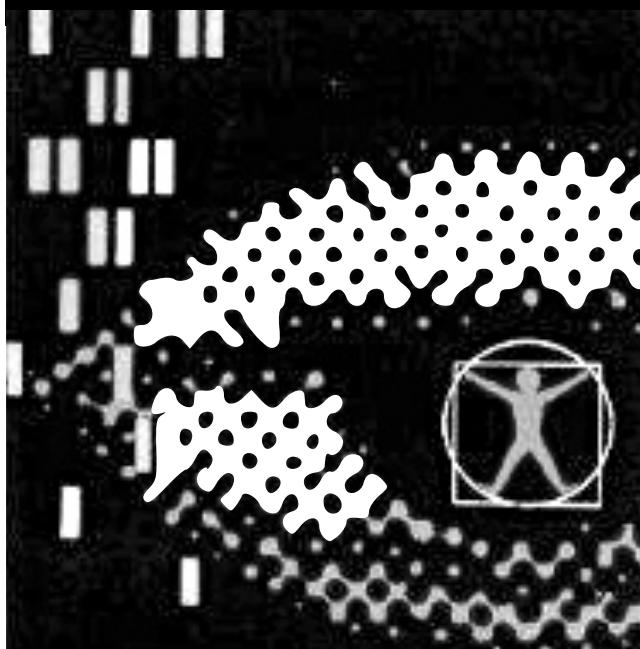


DATA SHOULD EMPOWER YOU



"I've always believed the web is for everyone. That's why I and others fight fiercely to protect it. The changes we've managed to bring have created a better and more connected world. But for all the good we've achieved, the web has evolved into an engine of inequity and division; swayed by powerful forces who use it for their own agendas."

In 2009, I said, "The web as I envisaged it we have not seen yet." That was because people were using the web just for documents, not for the data of a big web-wide computer. Since then, we have seen a wave of open data, but not of read-write data. For example, much open government data is produced through a one-way pipeline, so we can only view it.

Meanwhile though, there is a wave of concern, and related energy, desperate for change. People want to have a web they can trust. People want apps that help them do what they want and need to do - without spying on them. Apps that don't have an ulterior motive of distracting them with propositions to buy this or that. People will pay for this kind of quality and assurance."

-Sir Tim Berners-Lee

WAKING UP ON THE EDGE: How come the most intellectual creature to ever walk Earth is destroying its only home?

During my years studying chimpanzees in Gombe national park in Tanzania I experienced the magic of the rainforest. I learned how all life is interconnected, how each species, no matter how insignificant it may seem, has a role to play in the rich tapestry of life – known today as biodiversity. Even the loss of one thread can have a ripple effect and result in major damage to the whole.

I left Gombe in 1986 when I realized how fast chimpanzee habitat was being destroyed and how their numbers were declining. I visited six chimpanzee range states and learned a great deal about the rate of deforestation as a result of foreign corporations (timber, oil and mining) and population growth in communities in and around chimpanzee habitat, so that more land was needed for expanding villages, agriculture and grazing livestock.

Chimpanzees were affected by the bushmeat trade – the commercial hunting of wild animals for food. I saw traumatized infants, whose mother had been killed – either for the same bushmeat or the illegal live animal trade, for sale in the markets, or in inappropriate zoos where they had been placed after confiscation by local authorities.

But I also learned about the problems faced by so many African communities in and around chimpanzee habitat. When I arrived in Gombe in 1960 it was part of what was called the equatorial forest belt, stretching from East Africa through the Congo Basin to the West African coast. By 1980 it was a tiny island of forest surrounded by bare hills, with more people living there than the land could support, over-farmed soil, trees cut down on all but the steepest slopes by people desperate to grow food for their families or make money from charcoal. I realized that unless we could improve their lives we could not even try to protect the chimpanzees.

But chimpanzees, and many other species are still highly endangered. Over the last 100 years chimpanzee numbers have dropped from perhaps two million to a maximum of 340,000, many living in fragmented patches of forest. Several thousand apes are killed or taken captive for the illegal wildlife trade. Orangutans and gibbons are losing their habitats due to the proliferation of non-sustainable oil palm plantations. We are experiencing the sixth great extinction. The most recent report from WWF describes the situation as critical – in the last 40 years, we have lost some 60% of all animal and plant species on Earth.

We are poisoning the soil through large-scale industrial agriculture. Invasive species are choking out native animal and plant life in many places. Carbon dioxide is released into the atmosphere by our reliance on fossil fuels, destruction of the rain forests and pollution of the ocean. Increase of demand for meat not only involves horrible cruelty to billions of animals in factory farms, but huge areas of wild habitats are destroyed to grow crops for animal feed.

So much fossil fuel is required to take grain to animals, animals to slaughter, meat to table – and during digestion these animals are producing methane – an even more virulent gas than carbon dioxide. And their waste along with other industrial agricultural runoff is polluting soil and rivers sometimes causing toxic algae blooms over large areas of ocean.

Sir Tim Berners-Lee invented the web while at CERN (The European Organization for Nuclear Research) in 1989. He is the Founder and Director of the World Wide Web Consortium (W3C), the international standards forum for technical development of the Web, and the Web Foundation whose mission is that the World Wide Web serves Humanity. He co-founded and is President of the Open Data Institute in London. Tim is a Professor at the Massachusetts Institute of Technology (MIT) in the Computer Science and AI Lab ("CSAIL") where his research group works to re-decentralize the web. In April 2017, Sir Tim was awarded the Turing Prize which is considered the "Nobel Prize of Computing". Tim is a long time defender of Net Neutrality and the openness of the world wide web.

THE FUTURE IS STILL SO MUCH BIGGER THAN THE PAST

What made the Web powerful, and ultimately dominant, would also one day prove to be its greatest vulnerability: Berners-Lee gave it away for free; anyone with a computer and an Internet connection could not only access it but also build off it. Berners-Lee understood that the Web needed to be unfettered by patents, fees, royalties, or any other controls in order to thrive. This way, millions of innovators could design their own products to take advantage of it.

The power of the Web wasn't taken or stolen. We, collectively, by the billions, gave it away with every signed user agreement and intimate moment shared with technology. Facebook, Google, and Amazon now monopolize almost everything that happens online, from what we buy to the news we read to who we like. Along with a handful of powerful government agencies, they are able to monitor, manipulate, and spy in once unimaginable ways. Shortly after the 2016 election, Berners-Lee felt something had to change, and began methodically attempting to hack his creation.

Berners-Lee, who never directly profited off his invention, has also spent most of his life trying to guard it. While Silicon Valley started ride-share apps and social-media networks without profoundly considering the consequences, Berners-Lee has spent the past three decades thinking about little else. From the beginning, in fact, Berners-Lee understood how the epic power of the Web would radically transform governments, businesses, societies. He also envisioned that his invention could, in the wrong hands, become a

destroyer of worlds, as Robert Oppenheimer once infamously observed of his own creation.

His prophecy came to life, most recently, when revelations emerged that Russian hackers interfered with the 2016 presidential election, or when Facebook admitted it exposed data on more than 80 million users to a political research firm, Cambridge Analytica, which worked for Donald Trump's campaign. This episode was the latest in an increasingly chilling narrative. In 2012, Facebook conducted secret psychological experiments on nearly 700,000 users. Both Google and Amazon have filed patent applications for devices designed to listen for mood shifts and emotions in the human voice.

For the man who set all this in motion, the mushroom cloud was unfolding before his very eyes. "I was devastated," Berners-Lee told me that morning in Washington, blocks from the White House. For a brief moment, as he recalled his reaction to the Web's recent abuses, Berners-Lee quieted; he was virtually sorrowful. "Actually, physically—my mind and body were in a different state." Then he went on to recount, at a staccato pace, and in elliptical passages, the pain in watching his creation so distorted.

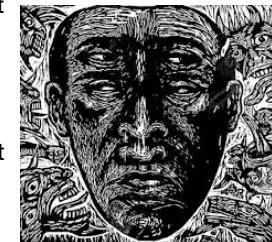
This agony, however, has had a profound effect on Berners-Lee. He is now embarking on a third act—determined to fight back through both his celebrity status and, notably, his skill as a coder. In particular, Berners-Lee has, for some time, been working on a new platform, '**Solid**', to reclaim the Web from corporations and return it to its democratic roots.

For Berners-Lee, this mission is critical to a fast-approaching future. Sometime this November, he estimates, half the world's population—close to 4 billion people—will be connected online, sharing everything from résumés to political views to DNA information. As billions more come online, they will feed trillions of additional bits of information into the Web, making it more powerful, more valuable, and potentially more dangerous than ever.

Thanks to Katrina Brooker

For Details on how Berners-Lee has envisioned evolving the World Wide Web with Solid, (derived from "[social linked data](#)") a proposed set of conventions and tools for building decentralized social applications based on Linked Data principles:

inrupt.com
solid.mit.edu



Climate change is a very real threat as spelled out in the latest UN report, as these greenhouse gases, trapping the heat of the sun, are causing the melting of polar ice, rising sea levels, more frequent and more intense storms, flooding and droughts. In some places agricultural yields are decreasing, fueling human displacement and conflict. How come the most intelligent creature to ever walk Earth is destroying its only home?

Because many policymakers and corporations – and we as individuals – tend to make a decision based on "How will this affect me now, affect the next shareholders meeting, the next political campaign?" rather than "How will this affect future generations?" Mother nature is being destroyed at an ever-faster rate for the sake of short term gain. This, along with our horrifying population growth, poverty – causing people to destroy the environment simply to try to make a living, and the unsustainable lifestyles of the rest of us who have way more than we need, is the root cause of all the planet's woes.

It is depressing to realize how much change I have witnessed during my 84 years. I have seen the ice melting in Greenland, the glaciers vanishing on Mount Kilimanjaro and around the world. When I arrived in Gombe the chimpanzee population stretched for miles along the shores of Lake Tanganyika. Buffalo, common then, are locally extinct and only a few leopards remain.

The water of the lake was crystal clear, fish and water cobras were abundant, and there were crocodiles. But with soil washed into the lake and over-fishing, that changed. When I spent time in the Serengeti and Ngorongoro in the 60s and early 70s, rhino and elephants were plentiful. Today they have become highly endangered, killed for their tusks and horns. I grew up in the south of England. The dawn chorus of the birds was magical – so many of them have gone, along with the hedgehogs that used to rustle through the vegetation at night. In May and June we had to draw the curtains at night to keep out the hundreds of cockchafers – May bugs, attracted to the light – today it is rare to see even one, and the clouds of mosquitos and midges are almost gone.

Yet, I believe we have a small window of opportunity when, if we get together, we can start to heal some of the harm we have inflicted. Everywhere, where young people understand the problems and are empowered to take action – when we listen to their voices, they are making a difference. With our superior intellect we are coming up with technological solutions to help us live in greater harmony with nature and reduce our own ecological footprints. We have a choice each day as to what we buy, eat and wear. And nature is amazingly resilient – there are no more bare hills around Gombe, as an example. Species on the brink of extinction have been given a second chance. We can reach out to the world through social media in a way never before possible. And there is the indomitable human spirit, the people who tackle the impossible and won't give up. My job is to give people hope, for without it we fall into apathy and do nothing.

- Jane Goodall
janegoodall.org