

STE Episode Transcript – The Internet

KEVIN DELANEY: I know that the early players in the web and the internet feel like they were too naive.

ANIL DASH: The internet was created with this sort of “F the man,” anything-goes mentality out of a late-’60s counterculture, West Coast mindset.

There is no gatekeeper. There is nobody telling you what you can or can't say, you don't have to ask permission.

DELANEY: They thought the web was going to be this amazing place that was democratic and would allow you to be whoever you wanted to be.

STEVEN JOHNSON: We were in this kind of Eden, people were developing their blogs and they were sharing ideas, being the authors of our own identity online and not having our identity shaped by these algorithms.

DELANEY: Over the last five years or so, the web has become a mechanism for corporate interests, for surveillance, and for bad actors.

DASH: You have widespread coordinated misinformation. Egregious personal harmful attacks at the most vulnerable. And no accountability built in to address it. It's hard to imagine things getting worse – but it will get worse

CATERINA FAKE: There are so many things about the web that are fantastic that we now take for granted. It connected us like never before, it created the ability to talk with anyone around the world, the ability for little people to communicate with a huge audience.

DELANEY: How do you balance the freedom and anonymity of the web with combating bad behavior?

DASH: There was a sort of techno-utopianism, which is like “technology will make us better than we were” as opposed to “technology will just make us more of what we are,” which I think is probably more true.

JOHNSON: We need to have the kinds of conversations where we dream about the way we'd like it to be. If you don't have those, we'll never get anything done. What it is is up to us.

FAKE: On this episode, we'll explore the web. It affects all of us, every day, in every part of our lives. We had a vision of a utopia when we built the web. But something has gone horribly

wrong. We're being surveilled and our data harvested and exploited. The web is full of predators and trolls. We swipe through endless entertainment and connect with millions of strangers, but we're unhappier and lonelier than ever before.

How do we determine whether the good outweighs the bad? What were we trying to build at the beginning? Where did it go wrong? And what can we do to fix it? We'll explore all of this and more in this episode of Should This Exist?.

[THEME MUSIC]

FAKE: Welcome to Should This Exist?. I'm Caterina Fake. I co-founded Flickr, helped build companies like Etsy, Kickstarter, and Superhuman. I'm now an investor at Yes VC, and your host.

This past season on Should This Exist? we've looked at new technology and innovations that will one day change the world as we know it. We've asked what could go right, what could go wrong, and whether it's worth it. In these conversations, we've found that tech can't be put in easy categories of good or evil, it's always a trade-off.

Our role is to ask how we can skew the results in our favor: create penicillin instead of the atomic bomb. For our last episode of the season, I wanted to look at an older technology, one that I helped build with thousands of other users: the world wide web. The web is a mixed bag and I've had both the privilege and the horror of watching good and bad effects play out in real time. Could it have gone differently? And what can be done now?

First, we'll tell the origin story of the web: Who created it and why? Then we'll examine how the web veered from its original mission: What went wrong? And could that have been avoided? And finally, we'll look to the future and explore how – if at all – we can build a better web. What would it take to return the web back to its original mission, and if we did, would that help?

To understand where the web went wrong, I want to talk about why it was created in the first place. So I spoke to Steven Berlin Johnson, an author and longtime observer of the internet, as well as an early adopter. He co-founded FEED, the very first web-only magazine, with Stefanie Syman back in 1995.

JOHNSON: So the web really begins with Tim Berners-Lee. He starts off at CERN, the great Swiss physics lab center, and he's a programmer there – and this is like in 1982 or 1983. And he's just kind of overwhelmed by all the sheer intellectual firepower of the place – there are all these brilliant nobel laureates walking around in the hallways.

And so really purely as a hobby, he starts creating this little side project for his own personal benefit, which is a tool for keeping track of all the people at his new job, and he calls it Inquire. And when he meets somebody new he creates a little entry for that

person. And if that person is collaborating with somebody else on a project he creates a rudimentary hypertext linking system connecting that person to their collaborator to the project they're working on.

It's a way of mapping this new environment, this community that he's a part of, and he uses it just kind of privately without a lot of ambition for a couple years and then he puts it aside. And then he starts tinkering with a later version of it – and it's not for about five years that he begins to think maybe he's onto something bigger.

And he starts calling this new iteration of his design “the world wide web”, and it leads to one of the greatest moments in office politics where he has to go into his supervisors and kind of awkwardly have that conversation where he's like, “I think I may have invented a global communications medium in my spare time.”

FAKE: Oops.

JOHNSON: “Can this be my day job?” And they say, “Yes.”

FAKE: So, Tim Berners-Lee shares his invention with colleagues and his own network. And the excitement started to build around the infinite possibilities that this new form of communication could have for humanity. Scientists, technologists, and hackers, upon learning about the web, worked through open source technology to make it more accessible. The web browsers Mosaic and Netscape emerged, which made it easier for regular people to connect around the world... like Steven and I.

JOHNSON: We met, really, thanks to the web years ago. I had written my book, called *Emergence*. And you had a blog at that point – I can't remember what it was called.

FAKE: Caterina.net. It's the same one, I still have it.

JOHNSON: Caterina.net, there you go, that's great! It was the early days of formal blogging. I saw that you had posted something about this book, *Emergence*, of mine. And you were musing on your blog about whether you should read the book or not. And as one does, as an author, I dropped into your comment section and I was like, “Caterina, I don't know you but I really think you should read it.

FAKE: And I did. It speaks to the nature of the web in those days.

JOHNSON: Yeah, I think there was something beautiful about that period where the web had gotten big enough that a lot of people were on it. And blogging had introduced this idea that individual websites could be attached to somebody's identity and that you would go to a site and know that I could find that person and engage with them, having no other connection to them in real life.

FAKE: With access to browsers, people like me and Steven were able to create online personas and communicate with each other through our blogs. It was a golden age of digital creativity, and also a kind of utopian community sharing thoughts and ideas through commenting and hyperlinking.

JOHNSON: It was a decentralized medium. The promise was we were moving from mass media to a more distributed form of media, and instead of having the world dominated by three television channels and three big national newspapers and 10 big national magazines, there were going to be tens of thousands of publications authored by individuals or small groups.

FAKE: Part of what I loved about this time was how empowered we were. It was up to us and our community to create the online world.

I used to say how in the '80s, there were bands like White Snake and Motley Crue that we were forced to listen to because it was on the radio. Somebody had decided that White Snake was what the world needed.

But when the web came about it was more like grabbing your banjo or mandolin and going down to the living room to play music with a bunch of other people.

That was what our web, the so-called Web 2.0, was supposed to be about: creating your own entertainment, making your own media, and not being beholden to "The Studios" or "The Man" – or anyone else.

But Steven remembers the moment where the utopian web that he loved started to change. It was when something mysterious started happening on his blog.

JOHNSON: One day these automated ads started to appear in my comments section. They were vaguely set up to seem like posts from actual people but they were clearly not real human beings, they were some weird kind of scripted text. I couldn't figure out what they were doing. Then a bunch of us slowly started to realize what they were doing: They weren't traditional ads, they were clearly comment spam.

All of a sudden all of our comment sections were getting spammed by these bots who were planting links to drive up the Google page rank of whatever site they were trying to promote. And I remember thinking, "This is really creepy."

FAKE: This Google comment spam anecdote tells a bigger story: the web was no longer a countercultural vehicle to disrupt traditional media. It was a major money-making opportunity.

One of the best people to speak to this is Anil Dash, an entrepreneur and blogger who has been creating apps, communities, and businesses on the web since the '90s when he was one of the pioneers of the blogging movement. He is now CEO of Glitch.

Anil remembers when the web shifted from being a free and open space for communication to a venue for commercialization bigger than the Mall of America.

DASH: The people creating the internet had a very strongly unapologetically anti-commercial bias. There was a very strong feeling that the infrastructure – the browser you use to go on the web, the software you use to run a web server, the tools you use to connect to each other and send messages – those should be free and open. And in many cases open source.

It really isn't until you get into the last 15, 20 years where you have this sort of dot com bubble burst, social media is born, and it kind of morphs into Web 2.0. What happens is the commercialization of the internet goes from a anathema – something that they almost had an immune response to – into something that's treated as inevitable.

FAKE: Kevin Delaney, the editor-in-chief of Quartz, has covered the evolution of the web since the 90s.

DELANEY: I covered Google's IPO for the *Wall Street Journal* and that was another moment where it was really clear that the internet was a business. Their IPO was a moment where it became clear for people that they were a really impressive corporate machine. They quickly bought YouTube and showed a real interest in getting into media and other aspects of what we do, how we spend our time. That was eye-opening as well.

FAKE: In reflecting on the foundational years of the web, what – if anything – could we have done differently? What paths could we have followed while creating the blogosphere, and what infrastructure could we have built to make sure the web remained true to its roots?

Kevin sees the web's transformation as a total perversion of the original intent.

DELANEY: Over the last five years or so, there's been a collective awakening by some of the people who are most essential to the building and growth of the web to the reality that they were far too naive about just having this open, unregulated post-national noosphere where people would exchange ideas.

The web has become, more than anything, a mechanism for corporate interests, for surveillance, and for bad actors to try and do things like steal our identities or hack our credit card information from stores or subvert democracy.

FAKE: Kevin, Steven and I talked about this, and we all have diverging perspectives. Kevin, for one, believes that we missed a crucial step in building the infrastructure of the web.

DELANEY: There were layers of the web that effectively were never built but were imagined. And so one of them is identity, the idea that you have a real identity that can be verified online in some way. It doesn't necessarily need to be super detailed, you could control who sees who you are, but it verifies that you are an individual and you can connect certain attributes like your nationality or other things – your interests – to it.

FAKE: Identity is one of the crucial issues of the internet that we have not solved. I'm not a huge believer that if everyone had to operate under their own identity, they would behave better. Because, as we have seen, there is ample evidence of people engaging in horrifying online behavior under their own names – and they find other people to join in.

If every social media profile on Twitter and Facebook was verified, we could eliminate bots and fake accounts, and maybe people would be less likely to post hate speech and propaganda. But it is also important to preserve anonymity online for vulnerable groups. I've had to help dozens of women, for example, dealing with stalkers and even murder threats from ex-partners. They need their privacy. And so I can't wholeheartedly advocate for a web comprised only of "real identities." Everyone deserves a private life.

Steven has also considered this lack of identity infrastructure, but his concern is about what came to replace it: social media.

JOHNSON: If you could rewind the tape and keep personal identity as a key founding convention or standard that was part of the web architecture, the whole history of the last 15 or 20 years would be re-written because basically social media – initially with blogs but then with Facebook and Twitter and LinkedIn and so on – swooped in to fill this missing piece of identity. And because they did it with closed standards and private companies and not with open source –

FAKE: And with a profit motive.

JOHNSON: – the whole thing got directed in a new direction that many of us have come to regret.

FAKE: Yes. Because then what you can do is you can sell people's attention. You can collect, harvest, and exploit people's data and then you can sell them things, because that's what a media property does – unlike on the early days of Flickr. What you could do is actually pay a fee in order for you and your family and your friends to participate.

But instead the business model became about selling the data of the people in order to market to them. Originally, it was things like sporting equipment and clothing or vacations, but subsequently it of course evolved into ideology and politics.

FAKE: Social media completely transformed the way we communicate with each other online and the way that we consume information. But Steven believes it's not just the tools themselves that we failed to anticipate.

JOHNSON: How much are the problems that we see now the result simply of just scale? So much of that early community was people who actually knew each other and it was a relatively small group of people and they had personal connections to each other and a shared sense of values.

FAKE: Yeah.

JOHNSON: It's really hard to keep that going when you're talking about 500 million people – or two billion people. And there aren't those kind of civic conventions of how we're supposed to get along and that problem that was an annoyance in the early days becomes a kind of cancer on the larger scale.

FAKE: We've talked about this a lot on the show, that old maxim that a few rotten apples can spoil the barrel, right? As we have explored over the course of the season, with every invention comes people who will use it for good – and inevitably those who will use it for bad.

It was with increasing alarm that I saw the web evolving. But it grew faster than our ethics could keep up with. There's a lot of different thinking on what we missed and what could have been done to slow the corporatization of the web and to safeguard it against the worst of human behavior. But in many ways, the web was intentionally made to be ungovernable. Lots of the people building these products were subscribers to a kind of techno-libertarianism, the idea of a digital space without regulation. It's the Wild West on purpose.

Anil sees this techno-libertarian mindset as a fundamental misunderstanding of how humans use – and abuse – technology.

DASH: I think the internet and the web are in a lot of ways just like people: Your greatest strength is usually very adjacent to your greatest weakness. And in the case of the internet in general, it was created with, actually, a lot of intentionality.

There was a very intentional decision to not build it with your own real identity connected to things, to not have a lot of infrastructure around accountability, to not really anticipate a lot of the potential downsides, and sort of say "Oh, well it'll work out" or "The market will figure it out" or "Someone else will invent that later."

And so there was a sort of techno-utopianism, which is like “technology will make us better than we were” as opposed to “technology will just make us more of what we are,” which I think is probably more true.

FAKE: The web is having a reckoning with the diversity of human behavior. Given all of the wonder and power of the web, some people will riot for greater equality, start movements, and share resources. Others will post hate speech, spread misinformation, and hurt people. And Anil believes that most serious consequences of the web’s lack of infrastructure are still to come.

DASH: It’s hard to imagine things getting worse than the most powerful countries in the world skewing the elections of one another – but it will get worse. I live and work in downtown Manhattan and you cannot escape the shadow of 9/11 when you’re here. And that was with planes, which are a century-old technology compared to the internet that we have now.

And we have not seen what it looks like when somebody says, “I want to disrupt the lives of a hundred million people in an egregious, serious way using technology.” And that’s going to happen. You talk to people in security world and it’s a 100 percent agreement, and we’ve already had hundred-million-scale data leaks. And those are just data leaks.

What would it look like it when somebody targets a hundred million people and says, “I want to destroy your digital record or throw it into disarray or make it impossible for you to be financially stable or to keep ownership of your home or your car or your family’s information.” Those are all inevitably going to happen. It’s only a question of who’s affected, how much they’re affected.

FAKE: I’m an optimist and I know we can find a way back to the original intentions of the web. Connection, communication, greater access to information – these are noble pursuits worth fighting for, and many people are.

We also don’t have a choice. The internet is not going away. But these problems demand attention. Can we fix them? How? Kevin believes we have some major tools at our disposal, but we haven’t been using them.

DELANEY: The web hasn’t been super controlled by governments traditionally, and individuals have been able to break the rules and move fast. The rules we have in real life need to apply online.

The Facebook original motto was: “Move fast, break things.” And Google’s original motto was: “Don’t be evil,” which was a kind of an indication of how kind of aggressive they all were, if the only constraint that you’re thinking about is not being evil. It’s problematic when individuals have extreme freedom and that freedom is generalized broadly. And we’ve talked a lot this year about technologies which on their own seem fine if you were

availing yourself to them, but in aggregate if all of humanity is doing it, then it becomes much more problematic.

FAKE: Greater regulation of the internet is an idea that many people are bringing up. You might have seen that op-ed that Chris Hughes, the co-founder of Facebook, published recently in the *New York Times*. It made a strong case that Facebook is a monopoly and the government has a legal responsibility to step in and break it up.

We can also look to standards already in place for determining free speech. We can treat these major companies – Twitter, Facebook, Google – as publishers who have to be responsible for the veracity of their information.

As somebody who has witnessed online harassment, trolling, and even death threats, I think introducing a sheriff to the Wild West is a great idea. But we also need to be more conscientious about how we use the web. We need to take a more active role in making the web what we want it to be.

Kevin believes this kind of action is a moral choice, one that we maybe haven't been best equipped to make.

DELANEY: We've abstracted the morality of our decisions online so much that people don't either realize or acknowledge that they're making these conscious decisions. How do we make people weigh their choices online?

We have a good infrastructure societally for helping people learn to make choices and good examples are the educational system and responsible parents and religious groups. Lots of institutions in our society that actually help instruct people about how they should think about values and how their choices reinforce their values. We haven't successfully applied that same institutions to the internet.

FAKE: We need a moral framework to navigate our behaviors and attitude on the web. We need a playbook. For example, we need to advocate for government bodies to regulate in favor of individuals and privacy. We should own and control our own data. We should eliminate bias and exclusion online. And we should support the good and suppress the bad.

Anil brought up another point about how to fix the web, one I think is important to consider: Not everything needs fixing. People have done incredible things on social media.

DASH: Look at a Me, too movement, a Black Lives Matter movement – these were not the concerns of the people that made these technologies. Yet they became empowering for the people who use these technologies.

It's a very wisely considered axiom that the master's tools will not end the master's power. And the way that internet technologies work is actually different, is that they can – because of the nature of networks – be applied in ways that disempower even the people who created them, if they're done right.

It seems to me 100 percent true and possible and in fact maybe even inevitable that in the years to come – the next 10, 15, 20 years – there will be not just a reclaiming, but a re-empowering of people creating the web that they want to see. And this is something I just I believe very, very strongly: Everybody on the web should be able to create the web. That's what it was meant to be.

FAKE: The early web started with very different intentions and because of its structural problems, its business model, and its scale, the web lost its way. And if the pundits are right, it may get worse before it gets better.

But I believe that when things fall apart and break down, there's opportunity. We can think deeply about what we want the web to do for us, and not to us. We can demand what we're entitled to: truth, privacy, transparency, security, fairness.

The web is big and unwieldy, but if we start making small, individual changes about what we click on and how we spend our time, I think we can make a better, more human space that serves – rather than enslaves – humanity.