

Speaker 1: Major funding for BackStory is provided by an anonymous donor, The National Endowment for the Humanities, and the Joseph and Robert Cornell Memorial Foundation.

Brian Balogh: From Virginia Humanities, this is BackStory.

Brian Balogh: Welcome to BackStory, the show that explains the history behind today's headlines. I'm Brian Balogh.

Nathan Connolly: I'm Nathan Connolly.

Ed Ayers: I'm Ed Ayers.

Nathan Connolly: If you're new to the podcast, we're all historians, and each week, along with our colleague Joanne Freeman, we explore a different aspect of American history.

Ed Ayers: If you're one of the millions of Americans who owns a smart speaker, you already know how it can make your daily life a bit easier.

J Shulevitz: It does seem more convenient to have a thing in your home that can, for example, tell you the steps of a recipe. Whereas otherwise if it was online and you were cooking, you had to like wipe your hands and then type into your computer or punch in the code on your phone or clean your thumb so you could, you know, all of that took a lot of time.

Ed Ayers: That's journalist Judith Shulevitz. She recently wrote about the rise of smart speakers and voice assistance in The Atlantic. In her own life, she's not only found her Google Assistant convenient, but she noticed she also started developing a kind of personal relationship to it.

J Shulevitz: The voice sort of enters us more deeply, and more physically, and we form relationships with voices. Evolutionarily speaking, for hundreds of thousands of years, if we heard a voice, it meant that a person was nearby. Only with the advent of the recorded voice did the voice become detached from a body, from a fellow presence. So we are evolutionarily designed to respond in this kind of physical way to voices.

J Shulevitz: So, it's very hard for our brains not to process a voice, even a computer voice, as a sort of appeal from another human and react to some degree emotionally and physically. So they have a greater presence. So even I have found myself saying to my Google Assistant, you know, I'm lonely and it will say, "I wish I could give you a hug, but for now, let me play you a song." So, you know, it's a kind of simulation of companionship and it can kind of do the job.

Ed Ayers: Today we probably still laugh when we momentarily catch ourselves talking to our virtual assistants as if they were somehow real. But technology is currently being developed to deepen our emotional attachment to these very devices.

J Shulevitz: There is a very hot new field in artificial intelligence which deals with artificial emotional intelligence and there's a lot of research being done on what's called emotion detection, how through machine learning, computers can learn to analyze your body language, your voice intonations and your facial expressions to figure out what you're feeling, and they can do this with a very high degree of precision, so that they can do it as well as we can and in some cases better. And that's already happening.

J Shulevitz: And pretty soon these researchers are going to be able to figure out how to create simulations in artificially intelligent devices, and produce emotionally appropriate responses. So you'll have a kind of back and forth. Right now, Alexa cannot read your emotions or Google Assistant cannot read your emotions and cannot respond at the emotional level. Once they learn to be able to do that, I think it's gonna be unbelievably hard not to react to them as if they were really human, and form real emotional bonds.

Ed Ayers: And, on one hand, an emotionally intelligent voice assistant will certainly make our lives simpler, easier, and as they say in Silicon Valley, frictionless. But it's also well, kinda creepy.

J Shulevitz: If you have a wish, and your assistant can almost anticipate that wish and fulfill it immediately, wouldn't that be kinda dangerous? If you have an emotional bond with an entity that is actually there to sell you stuff, wouldn't that be dangerous? If you had an emotional bond with an entity that was somehow related to the government and had power of persuasion over you, wouldn't that be dangerous? So this frictionlessness, I think, has a down side. It also has an upside, I mean, it is frankly, easier just to talk to an artificially intelligent entity than to tap on your computer. But I think the downside outweighs the upside.

Nathan Connolly: On today's show, we'll explore the history of technophobia in America. Why some resist, rather than embrace, new technologies.

Brian Balogh: We'll discuss how railroads sped up 19th century life in ways that seemed, to some, threatening and unnatural.

Ed Ayers: We'll talk about the history of Sabbath closing laws, and whether bringing them back could be the solution to today's technological woes.

Nathan Connolly: And later, we'll learn why technology and terror are often closely linked.

Brian Balogh: Think back to a time in your life when a new piece of technology started to gain some serious attention. Maybe it was the desktop computer, or the iPhone. How did people around you respond to it? There was probably some skepticism at first, questions like, why should I use this thing, or even, is it safe?

Brian Balogh: Back in the 19th century, you'd hear similar thoughts about another booming innovation, the railroad.

David Nye: Like all major technologies, it can evoke both fear and extravagant hope.

Brian Balogh: That's David Nye. He's an historian of technology. He talked with us from his office in Denmark on a piece of technology that ironically is becoming more obsolete these days, a landline telephone. I spoke with Nye about the railroad's influence on American society and how the public responded with hope and fear.

David Nye: The fear was partly just going so fast. There were people who were afraid that it would cause dislocation of the muscles or the bones in the body, or you'd get railroad spine, some people called it. There was a fear that the speed being bad for the nervous system. There's at least one or two clergymen who made these speeches about well, if God had meant for us to go this fast, he would've designed the world differently.

Brian Balogh: The time after midnight was excessively wearisome as we enjoyed the English style cars with eight on a seat riding backward, and eight more facing these backward riders with feet interlocked and one lantern as a lamp to two such Satanic English style compartments. And the glass sliding rack rattling as the springless cars rattled and thumped over the strap iron rails spiked to the long sleeper logs that made the track. Yet, to me and to most of us, this first night and ride in the cars was sublime, as an excitement and a novelty.

David Nye: But of course the extravagant hopes were that you would be able to knit a very large nation together. There was a fear in the early years of the American republic that maybe it was gonna be hard to keep such a large landmass together as one country. And then the hopes were often expressed in speeches, especially when they opened railways. They'd say, well, this will make our communication with, and they would plug in the name of wherever it was, the South or the West or Canada or someplace, but there would be this tighter bond.

David Nye: And there's this belief that the more rapid and regular the communication would be, the better people would get along or understand one another. There'd be this interchange. The same idea you get of course with the telephone later or the-

Brian Balogh: And the world wide web today.

David Nye: ... the world wide web. Yeah, you've heard this before. It doesn't always seem to happen, but it seems reasonable when you hear it. You think well yeah, should be better if we can see each other more often.

Brian Balogh: What were some of the longer term concerns about railroads which really did begin to reshape the landscape and the economy and politics?

David Nye: There's two kinds of impacts or effects you might say. The first is just the encounter with the thing itself, but then as you say, there's the longer term effects, and people who are, for example, in other forms of transportation immediately see the railway as a threat. They worry that the canals will no longer be able to compete.

David Nye: But it's more the way that the railways tend to dominate communities, especially as they get out into the middle West and they're not going from one well known city to another, they're actually creating the cities. They're deciding where they're gonna build a town. And the town becomes a kind of a creature, you might say, of the railroad. That they can ruin a town by not stopping there, or they can create a new town where they want one. So that the economic might of the railway is something that starts to worry and upset people, that these are monopolistic by nature.

Brian Balogh: Well speaking of trains, a lot of people were taking them to see the latest thing, all these World's Fairs that were popping up all over the United States at the end of the century.

David Nye: You're absolutely right. In fact, I don't think a World's Fair was ever held someplace where they didn't have train service. And very often, they're fairly new cities which are aspiring to become great or well known. So, for example, Omaha, has a World's Fair in 1898. Omaha, of course, is the place where the railway across the United States goes through. And they imagined, in 1898, that they were on the brink of becoming the next Chicago.

David Nye: Technology is actually, in a sense, part of why you ever had World's Fairs. They tend to feature inventions and to use technologies as one of the selling points for their visitor. Why should you go to this? Well we have something new. And then one of the things of course is railways, which are the way to get to the Fair but they're also displaying the latest improvements. And later on there are things like the telephone is first exhibited to the public at the Philadelphia Fair of 1876, or the electric light is exhibited in a Paris World's Fair and then shortly after, in the United States.

Brian Balogh: Let's pick one of those wonders, electricity. Can you shed some light on that for us?

David Nye: That's the metaphor, shedding light, yeah. Well, the first electric lights are displayed in a few city centers and then they quickly got picked up by the World's Fair's organizers because they have the obvious virtue that with good lighting, you can keep the Fair open more hours and generate more customers in a sense. If you can get people to come more.

David Nye: But then they realized they could also have spectacular effects with electric light, that the fairground looks one way in the daytime, but when you light it up at night, it has a quite different appearance depending on the skill of the lighting

engineer. The early Fairs would be kind of garish by our modern taste, you know, be very strong arc lights, they would be so bright, you could not really look at them.

David Nye: Gradually they actually scaled down the size of the bulbs, so they have a, and I'm not exaggerating, they have 30 thousand, 50 thousand lights in a single courtyard, and they're all very small, they're just 4 to 8 watts. And we are familiar with this, if you think of what Times Square used to look like with a lot of individual bulbs, and you can get special effects flashing things on and off or different colors. And that was much more effective, it turned out. The public really liked that, and so the people would sometimes come back to the fairground in the evening, 'cause they wanted to see it in its new guise.

Brian Balogh: What were some of the concerns, you talked about people literally being afraid that they might be injured by going too fast the first time they rode in a train, were there equivalent concerns about electricity?

David Nye: Well the fear of electricity was more of its, that you could get an electric shock, for example. It actually cuts both ways because there's a big interest in electrical medicine by which they meant that they literally gave you a very mild shock where they sort of plugged you in, and then they gave you a little juice, recharged your battery as they once put it. But there were of course people who thought they'd be killed by touching the wrong wire or doing the wrong thing at a factory. And so they knew that electricity could be deadly.

Ed Ayers: Electricity is eccentric and shocking. Its shocks will make the cars jump off from the tracks and endanger the lives of passengers. Water is a conductor, and rain will divert the electric current from the wires. Collisions and appalling accidents will inevitably occur. The rails will be electrified and horses stepping on them will be shocked and fall.

Brian Balogh: I suppose one of the ultimate signs of having made it as a technology is becoming a verb, right? I faxed you something, I googled. In the case of electricity, it really hit the trifecta because there are a whole series of metaphors built around electricity. Could you share some of those with us?

David Nye: Oh yeah, yeah. Actually it starts before the electric light. In the late 19th century, they would talk about a, if a boy and a girl or a young man and woman were courting, they would talk about, they were sparking.

Brian Balogh: Really? So they were sparking.

David Nye: They were sparking, that was a common expression. And then of course that suggests that these are two bodies which are electrified.

Brian Balogh: Most of my dates were kind of unplugged, David, but. I never really achieved spark level.

David Nye: Well some of them must have worked out, but yeah. But also there's also this idea of the body being a kind of a storage battery which can be recharged, or it can be run down. He needs to go have a vacation, recharge his battery too.

Brian Balogh: And in some instances, get amped up.

David Nye: Yeah, get amped up, you know. People would drink coffee and say it's my morning battery acid. So there's a huge number of these metaphors.

Brian Balogh: So David, when these metaphors start popping, does that mean we've simply completely naturalized what was once a very almost frightening technology? Or have we simply pushed some of those fears to the deeper recesses of our minds?

David Nye: Well that's a very interesting question. So with electricity I think it is true that we're in a sense naturalizing the technology where we're identifying with it. We're taking on its characteristics or what we think of as its characteristics. But, you're also correct, I think, to see that, well, there can be some fears. I mean electricity's got some scary properties.

David Nye: So it's not all to the good. It's the same thing when we talk about the mind in terms of the computer, which is by the way, interesting. It's all the mind, electricity's only for the body. But there is always in a sense the incorporation of a technology into us, it incorporates also some of those fears, as well as some of the excitement and the hopes.

Brian Balogh: David Nye is a professor of American Studies and the History of Technology at the University of Southern Denmark. He's the author of many books, including American Technological Sublime.

Brian Balogh: As a young journalist in New York City, Judith Shulevitz was always on the go, always on the move, always on.

J Shulevitz: Everything seemed to be about work, one way or another. I worked often on weekends, when I socialized, I socialized with people from work, because I was in New York. You know if you live in a small town, you probably have a wider range of acquaintances, when you are new to New York, you know your work friends. So when we had brunch, we had brunch and we talked about work and we gossiped about our work colleagues and who was up and who was down.

J Shulevitz: And there was something missing in my life, and one year I had a roommate who had been a friend of mine in high school, I went to boarding school, and she was the daughter of a Lutheran minister and she went to church. And I said to her, Jane, can I go to church with you? And she said, actually, no. I don't think you'd like it, and I would feel uncomfortable having you there, but there is a really cool shul, it's very architecturally, it's really beautiful and it's right down the street. Shul is Yiddish for synagogue. And why don't you go there?

J Shulevitz: So I went there, and it just aroused all these feelings, and I sat in the back and I would cry. It was as if there was this sadness that was waiting for a way to come out. And from there I sort of slowly became part of what's known as a shabbos or a Sabbath community.

Brian Balogh: Years after her moving experience in synagogue, Judith Shulevitz became interested in the history of the Sabbath, and what it might mean for us today. She says the Sabbath has a more central place in early American history than you might think.

J Shulevitz: I don't think people realize how much of a role the question of Sunday observance played in the Puritans' departure from England, and their voyage to America. A lot of the issue they had with King James I was over how Sunday was to be observed, for example, there was a big battle over bear baiting, which was an activity they felt should not occur on the Sabbath. So they were-

Brian Balogh: Any other day it was okay to bait bears then?

J Shulevitz: ... I guess so. Elizabethan era entertainments.

Brian Balogh: That was a tough time.

J Shulevitz: Yeah, so that was one of their big theological disputes and they came to America in search of a place in which they could, as often has been stated, create a new Jerusalem, a city on a hill, and they wanted to keep their Sabbaths as they wanted to keep them. Which was very very strictly.

Brian Balogh: And what did it actually mean to be that strict? What would life have been like in Puritan America?

J Shulevitz: Well, you would've been required to go to church. You would've spent several hours in church. There was no heating in church, and there was actually somebody who went up and down the rows of the pews and would sort of tap you on the head if you weren't paying attention. There was no work allowed, there was no play allowed. There were no fires allowed, so your food would be cold. If you had servants, you would read from the Bible to them and they were required to go to church too. So it was incredibly strict.

J Shulevitz: The Puritan style of observance really influenced Sunday laws in America for quite a long time. Ultimately there were more people keeping the Sabbath in a stricter way than there ever had been, I believe, in the history of the world.

Brian Balogh: But, as new technologies emerge that start splitting up daily life, the Sabbath and the Sabbath laws come under increased scrutiny and protest.

J Shulevitz: In the 19th century, there were these battles over Sabbatarianism that were really surprisingly politically charged. I think not in the book but in my own

mind, I compare it to the battles over abortion. That's how seriously people took them. The first of these great battles was over post offices, whether post offices would be open on Sunday or not. That was just this huge sort of kulturkampf, you know, cultural battle.

J Shulevitz: We wanted our communiques communicated quickly, and those who believed that they should be and that that would improve society, it would pick up the pace of industrialization and commerce and just simply make people's lives better, wanted the post offices open on Sunday. And those who feared that technology would overtake their lives argued against it. And overtake their lives and of course weaken their religion.

Brian Balogh: On both sides of the Sabbatarian debate, arguments were framed in terms of bringing the country together and protecting worker and immigrant interests in a rapidly changing industrializing society.

J Shulevitz: Later there would be these battles over whether libraries and other cultural institutions would be open or not. Often it was the people arguing for opening them were arguing on behalf of workers having access to culture, self improvement. Workers and immigrants, I should say. The people who were arguing against any weakening of Sabbatarianism were often arguing on behalf of workers and saying, if these restrictions are loosened, then workers will lose their day of rest.

Brian Balogh: Though sporadically enforced, these Sunday closing laws or blue laws, largely remain on the books throughout much of the first half of the 20th century. As late as 1961, in *McGowan vs. Maryland*, the Supreme Court upheld their constitutionality.

J Shulevitz: There was a decision that was made by Earl Warren and Felix Frankfurter to uphold blue laws. And it's interesting why Frankfurter who was Jewish argued for Sunday closing laws, which is what they were, and he said it's because Sunday peace and Sunday rest is quote, "a cultural asset of importance". It relieves from the daily grind, preserve of mental peace and opportunity for self disposition, and that the common good of the public overrode the First Amendment issues.

Brian Balogh: Throughout the second half of the 20th century, the blue laws finally did start to disappear.

J Shulevitz: Sort of there were two forces that led to them being challenged. One was the influx of women into the workforce. Once women were working, they needed both days of the weekend to shop and do the chores that they were, unfortunately still doing by themselves.

J Shulevitz: And the other thing was the advent of the big box store, the chain stores which had resources with which to lobby state legislatures to get these things struck

from the books. Mom and pop stores needed a day off, right? Sunday was good for them, they didn't have the resources to hire help to stay open as late as the chain stores did. So with the advent of Sunday shopping, a lot of mom and pop stores went out of business. So these were the forces that took these laws off the book even though they were only at that point being sporadically enforced.

Brian Balogh: And now in 2019 these blue laws are, for the most part, long gone. Still, Judith Shulevitz thinks we would do well to return to a kind of Sabbath. But how could we go about it in our technologically soaked environment?

J Shulevitz: With great difficulty. Obviously we're not going to return to blue laws, nor would I want to. I think they just raise too many issues and I just think the forces of industry prevent them and technology prevent them. But you could certainly begin, in your own life, in your own community, in your own congregation, to recognize the benefits of a social time of non-work. Sort of I say it's about structured non-work time. So everybody's not working at the same time as you, and now it's staying off your phone and staying off your computer. Everybody's not doing that at the same time as you, which means that there are people around with whom to do things together.

Brian Balogh: This could be secular, then.

J Shulevitz: Yeah, it is, I mean that's you know, Frankfurter said it's a secular asset. It need not be religious. I mean, I found it through religion but it need not be religious. There are people who are now talking about the technological Sabbath and how important it is to have one day a week where they just put their electronics away and try to remember what it was like to read books and go outside and play sports.

Brian Balogh: So I guess the moral here is that the Sabbath is what you make it, right? Is that a day of stepping away from the usual routines and demands is a great idea, but you sort of need to do it intentionally and if possible with a sense of joy and gratitude.

J Shulevitz: With one caveat, which is that that you has to be plural. In other words, it's not what you personally make it. It's what you with a group of others make it and how you define a community through it, because it is, it creates a space in time in which to forge bonds, social bonds, civic bonds, communal bonds, because you know, when you're focused on your work, you're focused on getting ahead and maybe you're working with a team, but it's really not a fully social experience and not an experience in which other aspects of yourself can come out. I feel that if you try to do it by yourself, it's going to be a very lonely experience.

Brian Balogh: Judith Shulevitz is a journalist, cultural critic and author of *The Sabbath World*, *Glimpses of a Different Order of Time*.

Brian Balogh: From 1978 to 1995, Ted Kaczynski, better known as the Unabomber, was the most wanted criminal in America. His reign of terror finally came to an end after evading the FBI for almost 18 years, when his own brother turned him in to the police.

Ed Ayers: A promising young University of California at Berkeley math professor turned bread baking backwards hermit, was in Helena's jail Thursday night while agents searched his Montana mountain shack for proof he is the anti-technology serial killer called the Unabomber. About 20 agents returned to the tarpaper shack Thursday to seek evidence that Theodore John Kaczynski, 53, carried out a nearly 18 year string of bombings around the country, including five in northern California that killed three and injured 23.

Nathan Connolly: After the Unabomber's arrest, the country breathed a collective sigh of relief, but many were left with the same burning question, how did Kaczynski go from promising math professor to anti-technology terrorist. Scholar Steven Jones says it might have something to do with an experiment he participated in at Harvard.

Steven Jones: It's been suggested in fact that his, that some of his troubles, his attitude toward technology may have its roots in experience he had in Harvard. He was part of an experiment there on undergraduates that's now widely viewed as unethical and cruel, where the students were subjected to all kinds of verbal abuse and had to write essays and then have them critiqued in public and so on, over the course of many months, often without knowing the details of what was going on in the experiment. This between 1959 and 1962, so a long ways back.

Steven Jones: But in general I think you're right that he's a product of that post-war, Cold War era and you see signs in the so-called manifesto of his interest in psychology, and particularly behaviorism. And there is a sense in which his, maybe his experiences at Harvard shaped his later rhetoric.

Nathan Connolly: Kaczynski goes on to graduate from Harvard and continues his studies at the University of Michigan, eventually becoming a math professor at Berkeley in 1967. A few years later, he quits his career in academia and withdraws from society to a remote cabin in Montana.

Steven Jones: He pretty soon begins to build these handmade bombs, symbolically made of wood and then inscribed often with F C, which apparently stood for Freedom Club. So that becomes his signature. And he delivers some by hand, he posts a number of others, and writes. He has a typewriter in his cabin, and he writes a number of things, including the document that led to his arrest, which was called by the press and by the FBI the Unabomber manifesto.

Nathan Connolly: There's obviously a great distance between withdrawing from one's career, moving into a cabin, buying a typewriter, and becoming someone who's actively building bombs. What's your sense about where this transition happened and who he chose to target?

Steven Jones: You know, ultimately I don't know, I think that the decision to commit that kind of violence is mystery whenever it happens ... sometimes glibly referred to as radicalization that covers a lot of territory actually, psychologically and personally, I think, in people's lives.

Steven Jones: But what we do know is that his targets were people who were in contact with or promoting what he saw as technological society from different angles. So academics in research, but also, for instance, sometimes people who were just in retail stores who were selling personal computers.

Steven Jones: And then he did have a kind of vendetta against the press, which you know, rings ominously today. He referred to as the propaganda machine and suggested this was another, a big piece in the puzzle of the problem with technological society.

Nathan Connolly: One year before his arrest, the Unabomber publishes Industrial Society and Its Future, a radical manifesto that reflected a broader anti-technology trend popularized by the neo-Luddites in the 1990s. But to truly understand the manifesto, Jones says it's crucial to note the difference between the historical Luddites of the 19th century in Britain and neo-Luddism, a movement that formed in America much later.

Steven Jones: The original Luddites, you know, were textile workers mostly. They were in these proto-unions that were descended from the guilds, and they were very much interested in very specific kinds of machinery and in restricting the use of those because they were putting them out of work. So they were a labor movement they were focused on economic justice and they were themselves technologists, that is they were machinists, they used machines in their work all the time, they just wanted to use their machines, not the newfangled labor saving devices that the owners were bringing in. So that's very very different from the neo-Luddites that really surfaced and made a big splash in the 1990s in this country.

Nathan Connolly: Were they not workers like the originals?

Steven Jones: Yeah, often they were white collar workers or academics, intellectuals. They were people who were interested in a kind of individualized lifestyle Luddism or a kind of anti-capitalist movement in some cases, or anti-globalization movement that had a kind of neo-Luddite side to it. Sometimes they were eco activists who saw in the Luddites a kind of historical antecedent although I think that's a distortion of the original Luddites.

Nathan Connolly: Although not affiliated with the movement in any official capacity, the Unabomber's manifesto is tinged with neo-Luddite themes. These include technology and it's adverse relationship to personal technology as well as technology as a kind of Frankenstein, a human creation that has become both malevolent and out of control.

Steven Jones: For me it epitomizes the neo-Luddism of the 1990s in a couple of ways. In its focus on personal psychology and making the rejection of technology an almost, a kind of spiritual decision, or personal decision. But also, the manifesto is about a generalized psychological problem, a kind of malaise. It has to do with things like a lack of self esteem, oddly enough. And he attributes a lot of this especially to leftists. There's this whole section of the manifesto attacking what he calls leftism and political correctness, which he sees as an impediment to the coming revolution.

Steven Jones: And the other way that it seems to me to epitomize the neo-Luddism of its time is its focus on technology as something abstract the notion that there's a kind of force outside of humanity that has taken on a life of its own, that is out to get us, even though we made it. And over which we have no more control, is a very sort of modern idea, and that's emphasized throughout.

Steven Jones: For me part of what's problematic about that is it suggests a kind of relinquishing of our responsibility or authority over what it is we've made, including the messes that we've made of the ecology for instance. So here in the midst of the Anthropocene, you know, we're all cursed with what technology has wrought, but we're all responsible for it and the danger of a kind of monster of technology with a capital T is that it externalizes that and makes it no longer a human problem but something that we have no control over.

Steven Jones: So, besides being abstract, the other thing is that he suggests that that technology is ubiquitous, that it's everywhere, it permeates the system, it's the basis for the entire modern system of society and he uses this to argue for example that you can't relinquish just part of it. You can't separate the good technology from the bad technology, so the entire system is corrupt and has to be taken down.

Nathan Connolly: So this is a fascinating set of conclusions, I mean this idea that technology is going to in effect destroy humankind, that it is a monster out of control. I mean I certainly see your point about, within the arguments there being a certain kind of recklessness about whether you can just let go of the wheel, so to speak. But there are a lot of other pieces of American popular culture that are making these kinds of arguments, you think of a film like The Terminator or any of the dystopian films like Mad Max, you know, The Matrix. I mean this is an argument that actually quite widespread.

Steven Jones: Absolutely, in fact I think that that's, that is neo-Luddism and that it's extremely widespread, although the term's not as popular as it was in the 1990s. And that you know, after 1945, the sense that technology is bigger than we can handle is a perfectly legitimate initial response to what we have made, to what humans have unleashed.

Steven Jones: And in popular culture, you see all sorts of aversions to this. A journalist recently attempted to cut all the major platforms out of her life, tried to perform an experiment where she eliminated Facebook and Google and Amazon and failed.

She admits that it's impossible. I really took on the kind of lifestyle she had in any way by doing that.

Steven Jones: And we're all becoming a little more sensitive I think in recent years to the dangers of ubiquitous surveillance, of big data, but that's precisely the point. It's a question of who controls that data, to what ends and what interests are being served by these technologies and those are the specific important questions that are elided or that are overshadowed by a kind of neo-Luddite ideology of ubiquitous technology that's everywhere and impossible to combat except by the destruction of civilization.

Nathan Connolly: Now you've written in your own work that there's an inherent relation between technology and terror, thinking about fears of cyber terrorism or runaway technological growth and such. How might the neo-Luddites and the Unabomber be an expression of that linkage?

Steven Jones: Yeah, I mean I think in a very precise way, it's clear that what Kaczynski was involved in was a campaign of terror. The idea was that it's not, the violence itself is a part of it, but the violence is part of a kind of campaign that's ideological and that's aimed at producing a certain affective response in the public. You know, you terrorize because of the threat of violence, not just because of the acts of violence, as we all well know.

Steven Jones: So there is a kind of a sense that if technology really is an autonomous and inhuman force that permeates every aspect of modern society, then what's needed to respond to it is a counter conspiracy of sorts, you have to have a kind of all pervasive kind of counter movement and in some ways it doesn't matter who you bomb if they're even tangentially connected to the technological society then this can be spun as a kind of just cause once it's been made total and ubiquitous and autonomous. So, terror is one kind of response to being terrified of these forces, I think, of technology among others.

Nathan Connolly: Steven Jones is a DeBartolo chair at liberal arts and professor of digital humanities at the University of South Florida. He's the author of *Against Technology: from Luddites to neo-Luddism*.

Brian Balogh: That's gonna do it for us today. And you can keep the conversation going online by sending an email to BackStory at Virginia dot E D U. We're also on Facebook and Twitter at BackStory radio. Whatever you do, don't be a stranger.

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