

Design Notes Episode 17 - James Bridle

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Liam Spradlin: Design Notes is a show about creative work and what it teaches us. I'm your host, Liam Spradlin. Each episode we talk with people from unique, creative fields to discover what inspires and unites us in our practice.

James Bridle: At the moment, most design is, is about hiding complexity. It's about making it easier for people to do things, making everything as, essentially, thoughtless as possible, when what we really, really, really need to do more than anything is, like, think about this. Not to be overwhelmed by it, not to be overcome by it, not to try and solve it, but simply not to, sort of, panic every time we encounter complexity in various ways.

Aaron Lammer: That interview was taped at this year's Google Design SPAN Conference in Helsinki. I'm your guest host, Aaron Lammer. I got to talk to artist and writer James Bridle, whose work is heavily concerned with surveillance.

James: Doing, um, a huge amount of work around surveillance, and have kind of intensely sensitized myself to it, to the point where when I walk around London and other heavily surveilled cities now, I kind of feel it as, like, kind of prickling on my shoulder blades.

Aaron: James and I talked about his thoughts on onboarding the world's next billion users.

James: This phrase that's been used several times at this conference already, which is the next billion users. How we, how do we onboard them onto the systems that we have at present? That's, that's not going to be what's going to happen. Uh, the next billion users are going to be very hot, and very wet, and pretty pissed off. And their needs are gonna be radically different from the last billion users. And so, thinking through what it really means to look outside this kind of, um, this bubble of, of what design's supposed to do ... Because, yeah, our, our current engagement with technology is, is radically unsustainable.

Aaron: Design Notes is put out by Google Design. You can find out more about Google Designs Podcast at design.google/podcasts.

Welcome, uh, James Bridle. Good morning.

James: Morning.

Aaron: You have a, uh, a new book that's called The New Dark Age. When did the, how long, how long has it been since the book came out?

James: Three or four months, now.

Aaron: Three or four? Okay.

It must be difficult to do a book on this topic because there's the constant chance with technology that, um, technology will surge past the concerns of the book. Was that, like, something you were thinking about while you were writing it?

James: I was thinking about it a little bit. I mean, I've worked in publishing, so I have some sense of the lead times and there, there's, there's always what feels like an incredible gulf between finishing writing and this thing actually coming out in public. But, at the same time, the book is slightly about time, and about slightly resisting that. That fear of being kind of overtaken by it. I, I don't think there's anything in there that, that was no longer relevant by the time the book came out, and in fact, though, because of the material it was looking at, there was stuff that maybe seemed, you know, a bit out there when it was written, and actually turned out to be incredibly important.

So, for example, I've, I, in the book, I picked up quite a lot on some of Carol [inaudible 00:02:59] early writing about Cambridge Analytica, which she was putting out there in 2017, but that stuff didn't really break in the mainstream until pretty much around the time I was publishing.

Aaron: You write a lot about how technology has outpaced our understanding of it, and technology, um, often does very little to inform humanity about what it is, what its intentions are ... What are, what are the ways that you try to understand that? What, um ... You have such a cross-disciplinary focus, you're an artist, you're a writer-

James: I, I don't have any particular, you know, set of practices or things that I really consistently [inaudible 00:03:37], beyond kind of detective novels and science fiction.

Aaron: That's always a good start.

James: Yeah, which is a pretty good basis for anything. But, um, I think more broadly what I do is, is, is I do a lot of practical stuff. Um, I have the supreme kind of privilege and luxury to be able to engage with these technologies, pretty much as, you know, however, in whichever ways I want. So, what usually happens is that I find some new, interesting piece of technology coming along and I try to make something with it.

Aaron: Hm.

James: That could be just some kind of doodle or sketch, it might end up being an artwork, it, quite commonly it's, like, "How can I use this for art?" Um, because that's sort of a good question as any, because you immediately start to do things with it that wasn't necessarily the, the created intention or the more, kind of, expected application of it, which always has interesting results. Rather than just kind of reading about this thing, like, what could you do with it yourself?

Aaron: What was, um, the most recent thing you've been tinkering with?

James: Most recent stuff is probably, uh, a lot of kind of decentralized technologies, uh, these kind of newer forms of kind of peer to peer infrastructures and, and programs and protocols. Before that, it was kind of newer networks, uh, and kind of simple machine learning, AI stuff-

Aaron: Hm.

James: Um, which was fiendishly complicated and took me a long time to even get my head around at the start, but at the same time, it was totally possible to do so. As with other stuff, though, there's open source versions of these things, there's [inaudible 00:04:51] repositories, there's instructions, there's tutorials, you can copy and paste this stuff on the internet and if you spend enough time with it, you, you can understand it just the same as you can understand anything else.

Aaron: AI is an interesting one, because that feels like, to me, as a, uh, a novice, a noob, one of the hardest things to tinker with, so when you think, "Okay, I want to experientially learn about this." Like, what, uh, tell me just a little bit in AI, like, what that consists of for you.

James: The first project I did that kind of really ... I, I did a lot of kind of nice, simple language, generation stuff, where a lot of this stuff starts, where

you kind of feed a very basic neural network a bunch of text, and then get it to kind of spit out these amusing things that it's learned from ... One of the barriers to this is that, um, to do, like, proper stuff, you need really massive computation.

Aaron: Hm.

James: This is why, basically, machine learning has taken off in the last few years, is because you have, um, big companies with massive data centers, Amazon, Google, Apple, [inaudible 00:05:48], to realizing that to do this stuff you need to churn through such vast amounts of ... Well, you first need a huge amount of data in the first place, uh, and then you need a huge amount of processing power to run it on. So, it's, it's, it's an expensive business. But, you can do these little kind of tinkering toy things.

And I was intrigued, by the way, um, AI seemed to have this kind of predictive quality that the machine would sort of, like, you know, by writing, or by seeing something it would kind of create the future in this way. So I, so I made a project called Cloud Index, which, um, looked at, uh, voting patterns in the UK around Brexit and connected it to the weather in order to generate, uh, weather patterns that related to poli-, particular electoral outcomes, um, which was sort of a joke on both the predictive quality of these machines, uh, but also on all of our ideas about the kind of chance and unknowability of elections. And that produced really lovely outcomes, but, um, but I, but I needed help with it because it was my first project.

Aaron: I, uh, I identify very strongly with that experiential learning model. Pre-1800, you had these people who were masters of science, but also are artists and skilled sketchers and are, um, involved in the development of optics. It almost feels like one person can master, um, enough of the disciplines to be as you, as you describe it, someone who kind of understands the whole system. And, right now, it feels incredibly dif-, difficult to understand the whole system. And, your book is a lot about the need for people to understand that whole system, so I wonder how you think designers can participate in that educational process and, and design with that in mind. I know that's not a simple question.

James: I, I think ... So, I think there's a, there's a few things going on there. I mean, this, this idea that since sometime in the 18th century it's been impossible for one, it's impossible for one person to kind of hold all human knowledge in their head, I mean, I think that was already a fallacy, and a

very, kind of, uh, Europeanized one, but, but it's definitely true that right now no one can possibly know everything. And, in fact, no one can even know everything about, about, like, two or three disciplines within everything. You know, fields are so vast and complex now and, and are composed of such complexly interacting systems, that even to have knowledge of that system is not to be able to kind of predict, uh, in, with any kind of real validity of what will happen when, when that knowledge goes out to play in the world.

So, yeah, we, we live in this age of kind of vast and, and basically unknowable systems, and yet we have to live in them. What I think about often is just basically how complexity in the world scares people in quite a deep way. I trace a lot of our current ways to the fact that the world seems too vast to understand for most people. And, having already established that we can't understand everything, how do we live within this complex world without going completely crazy? And it's that sense of having agency within a complex system, not, not needing to master it, not needing to control it, but actually being comfortable with, with this kind of uncertainty and complexity.

And what I feel like mo- ... At the moment, most design is, is about hiding complexity. It's about making it easier for people to do things, making everything as essentially thoughtless as possible, when what we really, really, really need to do more than anything is, like, think about this. Not to be overwhelmed by it, not to be overcome by it, not to try and solve it, but simply not to sort of panic every time we encounter complexity in various ways. If design can encourage people, not just to use things but to think about and learn from them, then you have a process of education built into that as well.

Aaron: That almost seems like a reversal of some of the design cliches of the last decade. The, um, minimalist everything, uh, simplify for the end users. To, to simplify or even to be minimalist in thinking is, in some ways, to deny complexity.

James: It's to deny complexity, it's to reduce agency, and it's to kind of increase illiteracy. Um, it's, it's to say that, like, this stuff is too complicated for you to understand-

Aaron: Hm.

James: You don't need to think about this, you don't need to worry. Every time something is simplified or, or made easier, something is hidden. And we

really, I think we see that so, so strongly in, in so many, uh, examples in the present, really. You know, just taking us up to, like, the delivery or, or kind of ride hailing apps. Everything is reduced to just, like, a but-, this button on your phone behind a glass screen, requires no thinking about any of the kind of complex social structures, the laws, other peoples' lives, low paid workers, any of that stuff is outside the scope of this kind of design visualization of the problem. And, yeah, I, I increasingly believe that actually, like, a really good role for design would be to expose people to higher levels of complexity. The balance is not making it so hard, um, but that, that's design's role, I think, really.

Aaron: What is the first step people can take to taking control over their own technological lives and perhaps the serenity of their brains in relation to those tech-, technological lives?

James: There's, uh, a, a comfort level that we have when we have a working mental model of something. That means we feel like we have some sense of what's, what's gone wrong when we need to know that. And, yeah, and then can have, like, a more nuanced conversation with other people. There's a difference between knowing how to fix something and having, like, a working mental model of it.

Aaron: Hm.

James: I would be terrible at fixing the plumbing, but I know basically how it functions, what it's supposed to do ... Particularly I know, like, danger signs, um, I know, uh, I can probably figure out when something's wrong, where the problem exists, so that I can communicate with someone who has, like, a higher technical knowledge in order to fix it. That's the, that's the gap that I think I see in kind of technological knowledge's, is that there are people who have higher skills and do understand these things, and then there's everybody else.

Aaron: Yeah.

James: To which they're completely inexplicable, incomprehensible systems. But, the, the, the thing that I think upsets people, even like kind of subconsciously, even you know without us necessarily being aware of it all the time, it's the sense of we're constantly relying on things that, that we have no, no sense of their function.

Aaron: Uh, you live in Athens now, you lived in London until a few years ago. How has the change in your geography, um, like, you know ... Seeing

different things every day, seeing a different economic system that you're living within, how has that changed your thinking?

James:

I mean, fairly extensively and, and, you know, before I left London in particular, I, I was doing, um, a huge amount of work around surveillance, and then kind of intensely sensitized myself to it, to the point where I was, when I walk around London and other heavily surveilled cities now, I kind of feel it as, like, kind of prickling on my shoulder blades. Which, which thankfully is, is very much not the case in, in Athens for a number of reasons. Um, it's also a very technologically different place. Like, it, it feels like a lot of the kind of technological luxuries available to people in North America and Northern Europe really haven't spread beyond there. And, and, in part that's because of a certain affluence and, and, and time pressure and other things, but also it, it is cultural.

Um, delivery services and, and a lot of the things work in, um, uh, are kind of much more threaded into the mode of society there. Like, if you want a coffee, like, someone will bring it to you anyway, that you don't need, like, all kinds of apps and stuff to kind of get into that system. Equally, you know, the first taxi app was for, for the taxis, because they have a much different relationship with, with labor unions and this kind of stuff there, so it wasn't something that was, um, kind of extracting work out of, uh, a kind of new, lower, um, lower paid or lower protected group, but actually came with a set of strengths to it.

You know, looking back at Europe and looking at elsewhere, at a very different world, there's this phrase that's been used several times at this conference already, which is the next billion users. How are we, how do we onboard them onto the systems that we have at present? That's, that's not going to be what's going to happen. Uh, the next billion users are going to be very hot, and very wet, and pretty pissed off. And their needs are gonna be radically different to the last billion users. And so, thinking through what it really means to look outside this kind of, um, this bubble of, of what design's supposed to do because, yeah, our, our current engagement with technology is, is radically unsustainable. And that's really, really obvious when you move outside the, the kind of bubble of North America and Northern Europe.

It's also just interesting to do these things in different places. You know, when I did this self-driving car project, I wasn't really thinking so much about what I was doing, or rather, I wasn't thinking so much about where I was doing it. But, there is something different about building artificial intelligence and, and running it on the road system. Not in California or,

kind of, Bavaria, but in Greece, a place with a very different, kind of, social and material and even mythological history. So, uh, when I was testing the self-driving car, I found myself just, you know, driving up into the mountains, drive around all these little tracks, I realized I was driving up Mount Parnassus, which is the, the home of the muses. Of course, it's the biggest cliché in the world for a, like, kind of posh, English guy to go to Greece and discover, you know, the, the Greek mythology-

Aaron: Uh, it's a rich tradition.

James: It's a rich tradition, yeah. Um, but, but it also, it has meaning, because you're engaging with a different set of stories than you would do if you would, if you were engaging with the kind of technical determinants myth of Silicone Valley or the kind of industrial myths of, of the German auto industry, uh, you're enga-, like, just by, by the, the, the stories that are in the place that you're in, they bring a, a slightly different kind of thought structure behind these things. So, that's, that's sort of intensely valuable as well.

Aaron: I really enjoyed your writing about surveillance in Britain, and I wonder how you think about the idea that if you don't know, if you do know more about these systems, as you do having written about it, and now I do having read your writing, uh, you've almost ruined London a bit for me.

James: Um, it's, it's difficult. The, the book is, is, is hard work, and it's quite grim, and it doesn't paint a very pretty picture of things. And I, I wrote it in part to kind of get these things, not out of, at least through my head and kind of down on paper, so that we could just be clear about what we're talking about. Um, there are hopeful, I think, aspects within the book, but again I was trying to, I was really trying not to kind of solutionize or predict or any of those things, really just to straight out just tell a bunch of stories about, "This is what's happening."

Um, and also this is not, not, this is what's happening in the future, but this is, this is what's happening right now. These are the already visible effects of the things that we're building. Because we're constantly being told that these technologies will kind of produce magic outcomes in the future, uh, and yet, they seem to be producing, actually, hideous conditions in the present and there's no ex-, reason why that, why that, what that should change. So, we have to be very clear about what the situation is, so that actually we can, um, have a kind of meaningful discussion about it.

And, yeah, in, in places that's, that's quite traumatic and difficult. But it's, it's, it's a lot better than just ignoring the situation or pretending it's not there. I don't think anyone is capable of ignoring the situation. It's far more of a kind of, like, uh, a psychology in which all of that, uh, just kind of vague awareness is, is suppressed and, and results in, in kind of hideous fear and, and, and, and occasionally kind of anger, uh, or kind of at the moment predominantly anger, which seems to be the kind of dominant political tenor of our times. Um, I think, I think that's a fairly clear psychological response to a lack of agency and power and, and understanding of the world.

Aaron: You read about, um, computational thinking and how it leads to the kinds of, um, solutionism that you were just describing. I, I wonder if you could just sort of talk about what computational thinking is and how it informs a lot of the design that at least presently we see in the world. Maybe not in the future, hopefully.

James: So, computational thinking is a kind of extension of what other people have called solutionism. Solutionism is the kind of dominant narrative of, of Silicon Valley, but it's kind of spread to a lot of the rest of our ... Which is essentially that, the issues of the world are technical problems, which can be fixed, mostly by the application of more technology. That there are, there is kind of one true answer to these problems, and by some kind of, you know, evolutionary design critical path, we shall, we shall reach that and, and that we will be able to solve these problems.

Computational thinking, for me, is kind of what happens when that settles deep into the brain stem, and we're not even aware that we're thinking that way anymore, so, but we still kind of consider the world as a, as a, something to be calculated. So, it starts to bring in all these questions, and not just solutions with data, but how we see the world as collections of data, how we think we can collect the world as data, that the world is, is meaningful just through kind of collecting information about it, and that there is some kind of sum total of knowledge out, uh, that if only we could gather it together, everything would sort of magically become clear. It, it, it presumes like a, a fixed input and output, like a fixed process that will come to some kind of resolution. Um, and it's increasingly obvious that that's not the case. Um, the world is not like that. The world is not ... Much of the world is, is incomputable, but is obscured from view by this belief in kind of computational [inaudible 00:18:53], which has really, really disastrous effects.

The, the project, then, is to kind of look for, as I do in the book, to explore the ways in which computational knowledge fails. And then, to start to think about the implications of that, which are that there is no, kind of, algorithmic solution to the world, which means there is no, um, magic future point at which things are gonna be solved. Which is really important, because it returns our attention to the present, and actually what we can do in the here and now, uh, how to help and care rather than, rather than keeping your eye on this, some, some distant techno fix, which will solve this stuff, stuff in the future and I, I find that actually to be incredibly powerful and kind of reorienting, um, to actually think about what, you know, what the things that we work on, achieve now in the present ... What Aldous Huxley always said about, um, means defining the ends, right? We, we can't just keep our eyes on this kind of, like, uh, amazing future that we'll be kind of ushered in by these things. Rather, we have to pay close attention to what they're doing now.

Aaron: I was, as I was reading, um, about your ideas on computational thinking, my brain kept asking, "Well, what's the opposite of computational thinking?" Like, "What is the foil, in a literary sense, for, for this?" And, the closest I could approximate, um, and I'm interested in whether I've misinterpreted your ideas here, is that chaos and perhaps, and acknowledgement of the essential chaos is the opposite of computational thinking.

James: Yeah. I think, I think, in as much as chaos captures that which cannot be modeled or predicted-

Aaron: Yeah.

James: In any meaningful way. So, in the book I write quite a lot about, uh, Richardson. Um, Lewis Fry Richardson, who was a, a meteorologist and pacifist. Uh, he has a really interesting life story, but he's basically the guy who invents weather prediction. Literally. It's called, his, his book was called Weather Prediction by Numerical Processes.

Aaron: Yeah.

James: So, he was the first person who says that we can calculate the weather, which is the same thing as saying we can calculate the future, right? That we can develop a form of math that's so powerful, that it will capture all this data and will tell us what will happen in the future. Um, so I really, I think of, of weather prediction as, like, the f-, one of the foundations of computational prediction. Um, but Richardson does a whole bunch of

other amazing stuff in his life and, uh, later on he actually, he tries to apply that to solving conflicts, and he writes a number of books about, uh, the mathematical basis, basis for war, which he never really kind of resolves because, it turns out, chaos. Um, but, uh, but one of the things he sort of hits on about halfway through, I think it was sort of early forties or fifties, halfway through this kind of process, and then doesn't, I don't know, for me doesn't really [inaudible 00:21:23] the consequences of ...

There's this thing called the Coastline Paradox, where, it's when he's trying to work out the likelihood of two nations going to war with each other, and he thinks it might be related to the length of their shared border. So, he tries to calculate the shared borders between all these places, and he realizes it's impossible to measure borders and coastlines of Zeno's Paradox. Like, if you do an approximation, you know, you can say, uh, you know, if you draw this many lines, it's this long. And then you realize they can shorten those lines and make it, like, lower the resolution, it gets longer and longer and longer. And it's one of the first [inaudible 00:21:52] of, of, of fractal numbers, and I think [inaudible 00:21:55] later cited Richardson's work as a kind of early example of this realization of fractals, that it's complexity all the way down, that you increase the resolution and things become more and more complex. There's no, there's no answer to this question. [inaudible 00:22:07], uh, coastlines are, uh, are, are unmeasurable, or fractal in a sense.

And so, even just, like, the, the, like, [inaudible 00:22:15] also, where if you, like, really pay attention to what the maths or the technology is telling you, it's saying, "You can't do this." Like, "This is more complex than it's possible ..." And, all of these things that we think of as kind of, like, failures or bugs of, of computational processes are actually, for me in this sort anthropomorphic way, is, is that, you know, the machinery going ... Like, no, this isn't the way to do this. And the evidence of it is all around us and we're just refusing to see it.

Aaron: You just described someone as a meteorologist and pacifist, which I think is maybe my favorite, like, life/job description ever. When, when you're on a flight from, uh, Athens to here in Helsinki where we are now, and someone asks, um, what, what you do, what do you tell them?

James: Uh, I say, I say writer and artist, it covers all of the bases.

Aaron: It covers all the bases? Um, what, what's next? Where, where does, where is your writing and art taking you?

James: I'm, I'm super interested in exploring, like, exploring the consequences of, um, this particular and potential answer to the problem of the future, uh, which is essentially to, um, suggest that it's not where we should be spending our energy and our thought. That we have to think very carefully about the structures that we, that we build and inhabit, uh, in the present, um, how we actually, uh, think about and care for everyone around us, and ask ourselves constantly at every point, like, "Am I trying to fix this problem? Or, am I trying to help?" That, that to me seems the axis on, on which so much of this stuff turns, rather than kind of, uh, concentrating on kind of huge, wild solutions to large problems.

Aaron: Uh, thank you so much for this interview, I really appreciate it.

James: Pleasure. Thanks for having me.

Liam Spradlin: Make sure to check out the rest of our series, recorded at SPAN 2018 in Helsinki. Guest host, Aaron [inaudible 00:24:01] and Amber Bravo spoke with speakers from this year's conference about their work at the intersection of technology and design in the four part series available now. You can subscribe to Design Notes on Google Podcasts, iTunes, Spotify, or wherever you listen to podcasts.