

Sidedoor

Episode 1: Tech Yourself

TC: I'm Tony Cohn and this is Sidedoor, a new podcast from the Smithsonian. In our very first episode my co-host Megan and I bring you three stories that touch on what technology can say about us. And to do this, we're sending Megan into dangerous territory.

MD: That's right, Tony! I'm going back to high school, or at least a high schooler's bedroom. Just like Drew Barrymore in Never Been Kissed, I'm going to get the scoop on the cool kids.

H: I'm Hannah Thompson and I'm 18 years old.

E: And I'm Erin Sonnenburg and I'm the same age.

H: And we're best friends.

MD: I hung out in Erin's bedroom for an afternoon to learn a little about what they're into. Turns out those girls love their phones.

MD: Do you guys use Snapchat?

H: We use carrier pigeon, owl messenger.

MD: High school sarcasm is pretty timeless.

H: It's between Instagram and Snapchat. I use them both all the time, it's just loads of fun.

E: All day, every day.

[Laughs]

E: There's a Kylie Jenner everywhere, it's weird to say.

MD: For those of you not into reality TV, Kylie Jenner is the youngest sister from Keeping up with the Kardashians. And she is huge on social media. And every high school has someone like her, the popular kid. The one who gets all the likes and comments.

E: But it's true, there's the "it" girl or guy.

E: If they post photos within two seconds it's "like, like, like, like" but if we're to post photos it'd be nine hours, because I'm not the "It" person.

H: Oh! And who has pictures with who.

MD: If you're not in the right photos, you can be very aware of that.

E: Yeah! There's a couple girls at school that I thought were my friends and I saw them in a picture with people who didn't like me and I'm like "Oh, are we not friends now?" Just because they moved up the ladder.

MD: A lot of that teenage anxiety plays out in apps.

H: I can tell when you've read my messages and ignore me, it just makes me think, "Oh no what did I do? Did I say this wrong?" When in reality they are like "lol sorry, dropped my phone in the shower."

MD: And a lot of additional pressure.

H: Your selfie game has to be on point. It's almost like you're trying to appeal to an audience, it's like some sort of art form.

MD: Hannah and Ellen's generation is the first generation to grow up with smartphones--the iPhone came out when they were nine years old. And teens, like Hannah and Erin, use their cell phones more than any other age group. Those factors -- plus the fact that these are just emotionally supercharged years -- makes teens the perfect guinea pigs for researchers.

MD: Anthropologists Alex Dent, Joel Kuipers and Josh Bell are in the first year of a three year study that looks at cell phones trouble among teens. Josh, a curator at the Smithsonian's National Museum of Natural History says those breakdowns could be either the physical phone or in conversations and etiquette

Bell: It goes back to something fundamental about humans. We like interaction and so I think the issue is how these cellphones are shaping that interaction and I think it's a mix between demanding our attention in new ways, but it's also letting things we did prior to continue to be done but maybe to new extremes.

MD: And while Hannah and her crew may not realize it, Josh says Snapchat is creating new ways for people to classify and rank their friends.

Bell: It's giving kind of a visual, tangible, index of your friendship, right? Which is interesting and there are all these different emoticons that indicate if I'm a friend with you and you're not a friend with me, and all these things.

MD: So we're all glued to our phones. Texting our friends. Posting photos. Having this endless conversation that we can pick up and set down whenever we want.

TC: Yeah, but, is that actually a good thing?

MD: That's what Josh is trying to figure out. Whether or not that's a good thing...

Bell: I think its shifting people's etiquette and notions of etiquette.

MD: So Liking, snap, faving...

TC: Whoa whoa whoa, faving?

MD: Favoriting... because I'm cool.

TC: Nice, continue.

MD: They're all ways we validate our friendships now. And that takes a lot of work.

Bell: The way I view society, the state of the world, really in terms of social relationships, is entropy. Things are always breaking down, continuity is not the norm. And what humans strive to do is work against that entropy.

TC: So does texting help build those relationships or break them apart?

MD: There's this idea that when we communicate in text it's way less vulnerable than communicating in person, like if you don't have to see the reactions on someone's face you don't have to worry as much about their feelings. But Josh says, that isn't the case for teens. And the devil, really, is in the details. Or in this case, the punctuation.

Bell: Do you use an exclamation points? Do you put a period? I think parsing that reminds us again that language of course usually is contextual and its part of your social group.

MD: Whether or not that's a good thing...

Bell: It shapes us, and we shape it, and it shapes us. I think it shapes us. I think until computers become self-aware and until technology becomes self-replicating and become our overlords, we are still slightly in control.

TC: So if how we communicate with each other is fundamentally human, and this new technology is changing how we do that -- is it changing us?

MD: Josh thinks that answer may well be "yes " ... but when he finds out for sure ... I'm sure we'll all hear about it on social media." But maybe we don't need to study people and their tech. Maybe we can best understand humanity by removing the humans entirely.

TC: What?

MD: What would you say if I told you that there is a digital tribe mirroring the history of human social evolution and all its potential outcomes?

TC: I would ask you for a lengthy explanation.

MD: Okay, I'll just show you.

MD: Tony and I are at the Hirshhorn, the Smithsonian's modern art museum watching a computer program that simulates reality. This particular reality is an animated village on the side of a volcano. Tony, tell me what you see.

TC: I see two projections on a wall on one side it looks like an owl following a girl up the mountainside. On the other, villagers dancing around what looks like their leader. The characters look like computerized humans.

MD: Yeah. It's called "Emissary in the squat of the gods," and it simulates a community of ancient humans. This volcano they live on is active, so there's all these tremors.... But no one in the community has ever experienced a live volcano, so no one understands what is happening.

TC: They just seem really freaked out about it.

MD: They are, but they also just don't have any ideas about what to do about it. In moments like this, these characters rely on vocal hallucinations of past authorities -- their parents, or a leader, and eventually God speaking in their mind telling them what to do. Basically they're hearing voices, God voices, while this young girl has a different way of thinking. But all the characters make their own decisions, like Sims on autopilot. Its creator, artist Ian Cheng, calls it a live simulation:

Cheng: Simulations are animated ecosystems that have often many different objects and characters within them, but they each have their own properties and behaviors. And while exposing them to each other, new behaviors naturally emerge.

MD: There are almost 50 characters. They all have a very basic intelligence and basic set of needs, like eating, or being social, or keeping their energy up. And all around them are these objects that advertise fulfilling a need, as though the water bottle is saying: "Drink me, you are thirsty!" But none of them are equipped to deal with the tremors and ash clouds.

Cheng: Do you treat those signs as immediate death and move community away, or do you kind of keep your community rooted and try to wait it out?

MD: So here's are all these needs-driven characters, hashing it out with invisible voices, and something has to happen...

Cheng: Easy way to think of a simulation is kind of like a videogame that plays itself.

MD: ...with a plot twist.

Cheng: There is this one character, this little girl, who gets hit in the head with ash and rock from one of the tremors and she begins to think entirely differently from everyone around her.

MD: She gets narrative consciousness, which means that, like you or me, she can imagine herself in the future, not just right this moment. She can have goals. She meets and follows an owl she believes is a god voice. Taking him to the shaman, hoping to convince people to leave. But, ultimately she realizes the owl is miming her own voice.

TC: So does that change the way that she relates to other characters?

MD: Oh yeah. A lot of her goals involve other characters, who are all acting on reactionary needs. She always completes the goals, but the manner and the timing depends it depends on everything else that's happening around her. And that can have consequences.

Cheng: I'm trying to create an ecosystem that dynamically changes on its own. That, even though it's on a computer, can acquire the status that we can consider an organism rather than a mechanism. Something that is alive that can make its own mistakes that can learn.

MD: Each character's actions change depending on what in the environment they bump up against. And in this stress of the eruption we kind of get to see who wins, the young girl and her goals, or the Shaman who reacts to what he already knows... but sometimes the group think takes unexpected twists.

Cheng: There has been situations where one AI who has authority decides to kill another character and pee on that character. But because of the authority of that character the peeing behavior became something to imitate for everyone else as a social activity. So you had 20-23 like avatars just peeing on a dead avatar.

Cheng: They have ability to pee, kill, and walk places. But that particular combination, the particular vulgar act was an emergent property of the simulation.

MD: So some of those things that we think makes us human -- like looking to authority for guidance, emulating our parents -- are maybe not so special. Maybe a basic truth of humanity is that...

Cheng: We're still in moments of stress very much desiring of some kind of authority voice to just tell us what to do. Leaders fight for their position as leaders, but leaders are often just given power because people want the relief of not having to deal with their own stress. I feel with that what a simulation explores is a quite ancient phenomena and sort of at the underpinnings of how we operate 90% of the day.

MD: But it doesn't go on forever. The program restarts if the emissary achieves all her narratives goals, which that can take anything from a few minutes to hours. At one point, a curator found the girl staring at a flake of ash for two hours and wanted to know how to get her to move on.

Cheng: I don't have the capacity to fully simulate a living conscious thing. That being said, I do consider the simulations in a way alive, because like a really stupid dog or like an ant it is nonetheless producing very dynamic behavior that I myself as the author having watched this thing so many times have never seen before.

MD: Sometimes the girl will be able to convince the community that they need to leave. Other times, they'll all stay behind with the shaman. On rare occasions, the volcano

erupts, but that's almost beside the point. It's really about all those choices leading up to it.

Cheng: It's hard to appreciate change in one's life, because change happens very slowly. But in artwork, especially in a simulation, I am able to compress change at a rate where you can maybe watch evolution happen.

MD: But for now we get this little look at what human growth looks like. Even if it's just for a small moment in simulated history.

TC: Okay, Megan, I accept that our social evolution is typically really slow. But about 150 years ago, new technology completely changed the way we operated as a society-- and it all happened pretty quickly.

MD: How quickly?

TC: The only reason you can ask me that is because of this. Megan, I give you-- standardized time.

Stephens: I think a lot of people don't think about time. They accept the container that we operate in.

TC: That's Carlene Stephens, the curator who researches the cultural history of time at the Smithsonian's National Museum of American History.

Stephens: Most people just accept that we have zoned time; most people accepted that we have daylight saving time, we may not like it, but it's just what we do. It's the law of the land. But to get to this moment has been fraught with controversy.

TC: Today we always know what time it is... It's on our phones. Computer Screens. Microwaves. Everyone around you is running on pretty much the same time. But in the 1800s it was a whole different ball game that everyone showed up late to, because time didn't exist the same way it does today.

Stephens: Following time signals from nature was part of everyday life in the 19th century.

TC: So you knew the time by wherever the sun was in the sky, whatever the big clock in the middle of your town said.... Or...

Stephens: The Railroads. As the 19th century progresses, the railroads become more and more powerful.

TC: And each railroad had its own timetable. So now you have three kinds of time: natural, local and railroad. Confusing enough on its own, right? Add to the mess that...

Stephens: before we adopted standard time, every city and town across the country could set its own time.

TC: So if it was 12:00 in Milwaukee was 12:10 in Louisville and 11:25 in Kansas City. And when it took you days to travel from town to town, it's not such a big deal. But, when the railroads speed everything up...

MD: You can't catch a train if you don't know when it's coming.

TC: Yeah, so most people didn't. But passengers or no passengers, time was a huge problem for the railroads themselves. Trains running on a single track would have two different times. Even a few minutes off meant serious collisions.

Stephens: The growing power of the railroads was troublesome to many factions in American life. The railroads suspected that they were going to experience government intervention in their operations. Maybe not just for time, but for all kinds of things that they were doing. Lots of money involved, lots of complications that running a railroad involves.

TC: So to stop the government from getting involved, they decided to smooth things out themselves.

Stephens: November 18, 1883 that was the moment that the railroads of North America decided they were going to make the switch to zoned standard time.

MD: So time zones are just the railroad's way of keeping the government from nosing around in their business?

TC: And make it all quicker and more profitable, but standard time changed a lot more than just freight shipping. Factories pop up and employ thousands of people and...

Stephens: It becomes an industrial tool to keep everyone operating on the same schedule.

TC: And with new needs, we get new clocks.

Stephens: It is the invention for the factory punch clock. It's the invention of timestamps so that tasks are recorded in a schedule. It is the invention of work boards where it's possible to track a process in time. So the tightening down of the control of time, for the benefit of industry is certainly a big factor.

TC: People's lives were increasingly regulated by time. All because of technology.

MD: But this didn't happen at once right? It wasn't like boom there's standard time, and the next day everyone showed up to work at 9 am on the dot.

Stephens: It's a very gradual shift of attitudes about the different kinds of time that people in this country exist in.

TC: Towns kept two clocks: "local" and "railroad time." A bar owner in Minnesota got in trouble with the law for keeping his bar open past 11 p.m. He defended himself saying that there was still six minutes before the cutoff according to solar time. He lost.

Meanwhile, in Texas, another bar's liquor license was revoked for the same reasons. But an appeals judge decided that the rail roads didn't get to set the time. And reversed the decision.

Stephens: There is no stage curtain that comes up on the act and closes on the act. It's a fluid place-based set of circumstances.

TC: Some cities, like Detroit, just flat out refused to adopt standard time. It took another 35 years for the federal government to formally implement standard time, and even then it was enacted as an emergency wartime measure.

Stephens: The concept of time is something I think we as humans have invented. And the idea of synchrony is almost as powerful as this whole business of existing in time.

TC: Our relationship with time is still changing, and shaping how we act in the world. Only now, like Carlene says, time isn't something we question. It's something we evolve with.

MD: To say we are totally in charge of how we relate to the world independent of technology is straight up hubris. Everything we create reflects back on society. And technology can even mirror our own evolution.

TC: And challenge our social relationship.