

## Smithsonian Sidedoor Episode 1: Tech Yourself

<SFX\_girls showing me videos in the bedroom>

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.

<SFX us arriving>

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

E: And I'm Erin Sonnen-burg 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. [AND those girls love their phones]

SFX\_them playing with their phone

*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 Keep 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. (higher energy more conversational)

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 were 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 9 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.

NEEDS MUSIC

**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

**Commented [1]:** <http://www.mirror.co.uk/all-about/kylie-jenner>

The half sister of Kim Kardashian, Kylie Jenner is the youngest of Kris Jenner's daughters. As well as appearing on the hit reality TV programme, Keeping Up With The Kardashians, Kylie is also a model, designer and aspiring actress.

**Commented [2]:** [http://www.wired.com/2009/06/dayintech\\_0629/](http://www.wired.com/2009/06/dayintech_0629/)

2007: Apple puts the iPhone on sale. It sells ... fast.

Everybody knew it was coming. But nobody, not even Apple, predicted how the iPhone would change the way we look at phones forever.

**Commented [3]:** We are building upon a pilot project that investigated the role of cell phone trouble among teens in Washington, DC (2013-2014 — funded by the Smithsonian). By ethnographically describing cell phone breakdowns in five contexts (infrastructure, hardware, software, conversation, and etiquette) we seek to analyze these troubles among teens, some of the heaviest users of these devices, and some of the most vulnerable to their failure. The results will provide a detailed account of the actual uses of these communicative technologies, revealing background assumptions about relations between materiality and semiosis. In the process of carrying out this research, we will develop methods for analyzing mediation as an interaction between the material and the semiotic; our employment of video data will be significant in this respect, revealing not just the words participants use, but also the physical objects to which they are attending in the course of their communicative practices. And finally, on the level of broader impacts, we anticipate that our results will contribute to ongoing debates about teen dependence on these devices role of technology in identity production, and the integration of technology into households and learning environments.  
<https://cellularconnections.wordpress.com/about/about-the-project/>

*Bell: ....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 its 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 friends / categorize/ rank**.

*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 me, 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? **[Alt: But why does that matter?]**

MD: That's what Josh is trying to figure out.

*Hannah: [Some funny line I am working on finding in all the tape]*

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

*Bell: I think it's 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 working 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 do an exclamation points? What do different emoticons actually mean? Do you put a period? ... So I think parsing that and then reminds us again that language of course usually is contextual and it's part of your social group.*

*Whether or not that's a good thing*

MD: ...for most teenagers it feels like it. These technologies

*Bell: ... totally 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. (he says the phone, but we mean technology, find a new clip)*

TC: So if how we communicate with each other is fundamentally human, and this new tech 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."

MD: 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 say...What?

MD: Okay, I'll just take you // **SHOW YOU**

MD: Standup: 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.

**Commented [4]:** Transcript: But so I think the anxiety comes back to did people get my message. Did I get misinterpreted, did people interpret that correctly? Why haven't they gotten back to me? There's a certain, I think, there is a new.. See again it, we are having debates within our group what is new about it. Because I think people have always worried about their identity at some level.

**Commented [5]:** leave this note Tony, cause I think it should be show

TC: Two projections on a wall, an owl following a girl up the mountainside. And a villagers dancing around what looks like their leader. The characters look like computerized versions of humans.

MD: It's called "Emissary in the squat of the gods," and it simulates a community of ancient humans.

This volcano they live on... it's 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...s... speaking in their mind telling them what to do .. basically they're hearing 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 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!"

<SFX\_ tremor noise>

MD: 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...

**Commented [6]:** Transcript:

But they are situated on a side of an active volcano, however no one in that community has experienced an actual volcano lava after them in their experience in their lifetime, But what they are feeling and seeing in this simulation are the tremors leading up to a volcanic eruption. And the idea is that it is precisely these sort of pre-cursors and tremors that lead to intense stress

**Commented [7]:** Transcript:

It's basically, he's saying ancient humans were a society of schizophrenics. But that was a very normal thing, a very normalized reality. And these voices quite literally spoke to people in their mind, often the voices of their parents, the local leader of the community, and eventually gods. And these voices were the mediate answer to whatever problem you were newly encountering.

*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.*

(VOLUME IS OFF)

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 for 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 the simulation explores is a quite ancient phenomena and sort of at the underpinnings of how we operate 90% of the day.*

[WRONG MUSIC]

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. And 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.

<MUSIC>

SEGMENT 3

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. And to get to this moment has been fraught with controversy.*

<music>

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...

[vol. different]

*Stephens: The Railroads... <music> 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. (speed her up here)*

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... (1)

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. (2)

*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. (3)

*Stephens: November 18<sup>th</sup>, 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 9am on the dot.

**Commented [8]:** Before railroad dispatching by telegraph became common in the early 1860s, timetables dictated train arrivals and departures, established train priority, and ensured that trains did not collide on single-track lines.<sup>4</sup> Clocks in the terminals and watches held by conductors and engineers enforced the timetables. Punctuality was the principal running rule from the "More Slaughter by Railroad," New York Times, August 13, 1853; "The Rhode Island Collision," Illustrated News 2 (August 27, 1853): n.p.

<https://www.jstor.org/stable/pdf/3105429.pdf>

**Commented [9]:** Transcript: So to stop any government invention the railroads decided to act on their own. They voluntarily imposed zoned time to smooth out all of those bumpy individual community times.

**Commented [10]:** Transcript: In terms of what's happening in the 19th century and early 20th century with industrialization, urbanization, coordination of the times new media the telephones and telegraph.. Coordination of industrial production where factories now employ tens of thousands of people. It becomes an industrial tool to keep everyone operating on the same schedule. So, you see at the beginning of the 20th century the whole scientific management, efficiency movement. You see other kinds of clocks come onto the scene

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." (4) 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. (5)

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.*

(vol. changes)

TC: Time and synchronicity paved the way for so much that we value today... and it continues to shape our world and in turn we prioritize it. And like Carlene said time isn't something that we question, it's just something that we follow.

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. [CHECK TAPE]**

[OUTRO]

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.

MD: Thanks for listening to Sidedoor. Check out our website [si.edu/sidedoor](http://si.edu/sidedoor) for links to an immersive learning space for teens from the National Museum of Natural History, as well as excerpts from our interview with artist Ian Cheng and photos of his work.

**Commented [11]:** In 1878, a Minnesota law was passed stating that establishments selling intoxicating liquors must close by 11 p.m. In 1889, the statute was reenacted with amendments but retained the 11 p.m. closing time. According to the court in *State v. Johnson*, 106 "[i]n 1883, the railroads of the United States and Canada adopted four kinds of standard time, viz. Eastern, Central, Mountain, and Pacific, each applicable to a region covering approximately 15 deg. of longitude; in each case the standard being actual sun time at the central degree of longitude of the region to which the particular standard time was applicable."<sup>107</sup> In 1898, the defendant was convicted of keeping his saloon open after 11:00.<sup>108</sup> He claimed it was 6 minutes before 11:00 sun time when he closed.<sup>109</sup> Neither the trial court nor the state supreme court was persuaded.

<https://www.uakron.edu/dotAsset/727315.pdf>

**Commented [12]:** BAR owner's license was revoked because of a violation of the time limit for selling alcohol and the defense was that the authorities were enforcing a different time than the barkeep. -- <https://casetext.com/case/walker-v-terrell-1>

**Commented [13]:** Detroit experimented briefly with standard time, then voted to return to local time in 1900. ... Just when it adopted standard time isn't clear..

<https://books.google.com/books?id=cyTRqSduJfKc&pg=PA263&dq=standard+time,+%22detroit%22&hl=en&sa=X&ved=0ahUKewjs-vW81-fOAhWEmx4KHx2C18Q6AEIJTAA#v=onepage&q=standard%20time%2C%20%22detroit%22&f=false>

**Commented [14]:** In 1883 the U.S. railroad industry established official time zones with a set standard time within each zone. Congress eventually came on board, signing the railroad time zone system into law in 1918.

The only federal regulatory agency in existence at that time happened to be the Interstate Commerce Commission, so Congress granted the agency authority over time zones and any future modifications that might be necessary.

Daylight saving time was observed nationally again during World War II but was not uniformly practiced after the war's end.

[http://news.nationalgeographic.com/news/2009/03/090305-daylight-saving-time-facts-history\\_2.html](http://news.nationalgeographic.com/news/2009/03/090305-daylight-saving-time-facts-history_2.html)

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