

LOOK UP: TECHNOLOGY'S IMPACT ON ATTENTION, CONNECTION, AND
CREATIVITY

by

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Abstract

This thesis project aims to better understand the multi-faceted relationship between technology and its impacts on human attention, connection, and creativity. My body of research includes key academic texts and studies related to the main themes of technology dependence and attention, self-reflection and its impact on empathy, and the root of creativity. The final creative component of this thesis is a 30-minute podcast episode, featuring interviews with two professors, two members of Generation Z, and narration by me. Through this medium I can provide guidance for how to foster better relationships with ourselves, others, and our ability to create in the face of technology in an honest, and relevant way.

The word “users” is only used to describe two kinds of individuals: drug addicts and those online. In 2008, adults were spending 18 minutes a day on their phones, and just seven years later in 2015, the average jumped to 2 hours and 48 minutes (Alter, 28). This alarming spike in what is being referred to as “screen time”, will only continue to rise into the future. An obsession with technology, devices, or the internet is often referred to as a “technology addiction” in everyday conversation. However, the use of the word “addiction” places dangerous connotations on humans’ relationships with their devices; implying not only that this use is destructive, but that the only way to get better is to eliminate it completely. Devices have introduced new ways in which humans connect, learn, and create, and practically could not, nor should not, be eliminated completely. However, there is a conversation to be had about the short and long-term effects technology is having on our capacity for attention, connection, and creativity. This thesis is an attempt to understand why our devices are so effective at seizing and holding our attention, and how that exact grasp impacts our ability to give attention, connect with ourselves and others, and ultimately our ability to create.

Devices, and the programs that run on them are not designed to be easy to resist, point blank. There are individuals whose paychecks are determined by their ability to design programs, apps, devices, and services that keep users undeniably hooked. Technology has expedited the process for almost anything imaginable: calling someone across the world, complaining to a manager, food delivery, hailing a cab, meeting a significant other, and the list will continue to grow beyond anyone’s wildest dreams. The reason that these services are thriving is due to their ability to provide instant gratification to their users. Tristan Harris, a former Google employee once tasked with understanding how technology is impacting

attention, well-being, and behavior, has gone as far as equating our devices to “pocket-sized gambling machines” (Harrison, 135). He goes on to explain that the most psychologically addictive feature of gambling machines is the simple fact that the machine delivers intermittent variable rewards. Using a motion not dissimilar to swiping down on Instagram’s homepage, pulling a slot machine lever either reveals a reward, or nothing. Social media platforms possess the same stakes: a new email, a new Twitter follower, your friend’s newest Facebook profile picture, or nothing at all. Every pull of the lever that results in a reward is an instant dopamine hit to the prefrontal cortex (Alter, 44). The longer users spend on their platforms, the more money social media companies make. Looking at advertising revenue alone, Facebook made just shy of \$40 billion in 2017. On top of that, mobile ads are only going to become increasingly profitable for the company, and are expected to generate around \$60 billion of revenue annually by the year 2021 in mobile advertising alone (Facebook). The more time spent on an app (social networking or otherwise), the more opportunities the designers have to tighten their grasp on their users: likes, comments, pings, dings, vibrations, little red notification alerts. Making the conscious decision not to pick up your device is undeniably hard work when every aspect of the user experience is designed perfectly to pull you right back in. In order to better understand the nature of our dependence on technology, we must first evaluate under circumstances we are willing to automatically hand over our attention from the physical world in front of us to our devices.

Smartphones have become the first line of defense against boredom since the dawn of the technological revolution. What most individuals are referencing when using the word “boredom” is the concept of simple boredom. This has been described as a mild sensation felt when placed in a predictable, and momentarily unavoidable situation (Zomorodi, 17). Simple

boredom hits in a few common places like bus stops, check-out lines, and long car rides. While the term “boredom” has adopted negative connotations and led us to interpret this time alone with our thoughts as a waste of time, mind-wandering has been proven to be one of the most productive processes. When we are bored, and specifically bored *alone*, our brain enters what has been coined as “default mode network”. During these moments spent in default mode, we are left alone with only our thoughts and no external stimuli; think of them as miniature meditation sessions. This is our brain’s opportunity to engage in “autobiographical mapping”, or in other words, the brain’s chance to construct our sense of self (Turkle, 61). Our autobiographical map is comprised of experiences, ideas, feelings, evaluation, likes, dislikes, achievements, and failures. It is an account of our past, and responsible for how we imagine our future. This is the process that informs our physical body of the person who fills it. Furthermore, the closer we are in-tune with who we are as individuals, the stronger our ability to place ourselves within the narrative of another person. Our capacity for empathy is one of the defining characteristics of human beings that set us apart from the rest of the animal kingdom. It is the cornerstone of our emotional intelligence, and necessary for deeper, human connection. Unfortunately, without time for self-reflection, our ability to empathize suffers.

The aspect that motivates our distaste, avoidance, and anxiety surrounding boredom is the exact aspect that makes it so crucial to the development of our sense of self, emotional intelligence, and imagination: it requires solitude. In one experiment, participants were tasked with sitting alone with their thoughts for fifteen minutes, without any particular device, book, or task set before them. In addition to this, they were given the option to administer electroshocks to themselves if they became bored. Every participant assured

researchers that they would not need to shock themselves. However, after just six minutes, the majority of the participants were shocking themselves--some as many as 114 times (make time for boredom). This experiment is stunning evidence of a society that is so accustomed to being connected to the constant buzz and stimulation of our devices, that we have become afraid to listen to ourselves. The weakening of our sense of self only begins a snowball effect of difficulties. When we are not sure of who we are, we lose our ability to understand others, and our capacity for human connection is diminished. In one study, 77% of 18 to 24-year-olds reported that they reach for their phones before doing anything else when nothing is happening (Alter, 28). This automatic tendency to turn attention to anything but our own thoughts is robbing ourselves the opportunity to wander, to dream, to reflect. The catch is that each time we choose to fill a lull in our day with a device, we feel better. It allows us to take charge of and end our boredom, followed by a very temporary sense of control. However, the long-term effect of this behavior on our emotional intelligence, and ultimately our creativity, has the potential to be much more detrimental than the irrational dread of a few moments of boredom.

Creativity, first and foremost, begins with attention. Whether it be attention to our inner selves or the world around us, it all begins with the conscious decision to pay attention, to observe. Dutch psychologist Matthijs Baas, along with his colleagues, investigated the effect of the skill of observation on levels of creativity. Participants were evaluated on their creative ability following a session of open-monitoring meditation, a meditation technique where the subject is receptive to thoughts and emotions that arise during the session. The experiment revealed a consistent correlation between the skill of observation and creativity. Baas concluded, "To be creative, you need to have, or be trained in, the ability to carefully

observe, notice, or attend to phenomena that pass your mind's eye" (Kaufman and Gregoire, 120). This process does not require a designated meditation session to take place. Using any possible moment in your day to pay attention to your free-flowing thoughts will activate the brain's default mode network, referred to as the imagination network in this creative context. Research shows that the act of mind-wandering fosters a "creative incubation period" allowing time for creative thoughts to be tossed around in the unconscious mind for a period of time before rising to the surface consciousness (Kaufman and Gregoire, 33). There is a legitimate reason that some of the best "Aha!" moments occur while in a solitary setting, with no real task at hand. Scott Barry Kaufman, in collaboration with world's largest shower head supplier, Hansgrohe, conducted a study that found that 72% of people around the globe experienced new ideas while in the shower (Kaufman and Gregoire, 38). The shower is just one of many examples of an incubation space, a place without any distraction or influence from the outside world. Some of the world's most prominent thinkers, Kant, Darwin, Aristotle, Nietzsche, Freud, Hemingway, Jefferson, Dickens, and Beethoven all made solo strolls a part of their creative process (Kaufman and Gregoire, 41). They recognized the invaluable power of self-reflection and created an environment that encouraged it.

Creative inspiration can manifest from within the individual, as well from observing the world around us. Georgia O'Keeffe most famously described her experience with actively seeing, rather than passively looking at her surroundings, "In a way--nobody sees a flower--really--it is so small--we haven't time--and to see takes time, like to have a friend takes time" (Root-Bernstein, 36). In just a few words, O'Keeffe highlights the overlooked complexity of everyday objects. Actively giving your attention to your surroundings provides an endless supply of creative fuel, as there are intricacies and aspects of our world that the average

individual would give no more than a moment's glance. Taking the time to actively engage with the physical world directly in front of you, in and of itself, is a creative process. Take an empty soda can on the side of the road, for example. Was the dent in the side made by the drinker or from the impact with the ground? What is the can made of? Where did the material come from? How long has it been there by the looks of it? What specific shade would you assign to the color of the material? Does the can have the ability to feel? Does it have a name? Even just asking these questions requires the brain to begin to make associations between past experiences and ideas with this one simple soda can; demonstrating creativity simply through asking questions and curiosity. Creativity can be ignited within us and around us, so how is it impacted when our devices become the first solution to a wandering mind or a free moment to think?

In 1998, writer Linda Stone coined the phrase *continuous partial attention* in an assessment of how humans are spreading their attention too thin, in an attempt to be constantly connected and constantly connecting. While similar to multitasking in the sense that we are attending to many affairs, *continuous partial attention* gets at the idea that we are only providing each with a limited amount of attention (Stone). We have constructed this fallacy that being connected constantly is feeling busy, feeling acknowledged, feeling important, feeling alive. However, in an attempt to not miss a beat, we are in fact coming up short in what we take away from our endeavors. Instead of diving deep into a conversation, a book, a work of art, a friendship, a wandering thought, or, yes, even a Facebook post, we are instead skimming the surface in hopes of absorbing everything we can.

As far as mastering *continuous partial attention*, look no further than Generation Z. Having never known a world without the internet, they have often been referred to as

“Generation Net”. These teens and pre-teens have been raised on skimming the surface of their Instagram, Facebook, Twitter, Snapchat, Tumblr, musical.ly, and YouTube accounts. They are undeniably wrapped around the finger of technology, with no intention, or agency, to free themselves. Ask any teenager with a smartphone why they are constantly refreshing their feeds, and they will tell you that do not want to miss anything that is posted. Teenage girls, specifically, are extremely active on social networking sites; their use fueled by their crippling anxiety of being out of the loop. Fear Of Missing Out, or more often referred to as FOMO, is an acronym that has been normalized in a world where missing out on anything is a point of tension. The term was coined in response to the share-all-see-all nature of social media, and the anxieties that come along with comparing options, lives, and perceived happiness.

In one study, over six thousand individuals from “Generation Net” were studied to understand the impacts of the internet on the young. It was discovered that “digital immersion”, as they called it, has permanently impacted the way in which they seek out and retain information. They no longer read left to right, and top to bottom; instead skimming the page for pertinent information (Carr, 9). These digital natives have grown so accustomed to just dipping their toes in the water of so many shallow pools, that they have little idea as to how to dive into knowledge acquisition. “Digital amnesia” is the act of forgetting information that you now trust your device to store for you--birthdays, phone numbers, anniversaries (“Our smartphones are giving us 'digital amnesia'”). It also accounts for the compulsion to turn to Google for any question, rather than taking a moment to ponder it, or God forbid, ask another human being. The unlimited power of our devices is, in fact, limiting us. They are limiting our ability to think critically, ask questions, and retain information.

“Paying attention” simply does not have the meaning it used to twenty years ago. Studies have shown that even if a device is within eyeshot during a conversation, the discussion is more likely to simply skim the surface rather than diving deep (Alter, 16). Devices remind us of the world beyond the human being sitting right in front of us, and instantly divides our attention. Imagine the connection, conversation, reflection, and creative potential of a conversation without that reminder. Two minds are available to feed off of one another, wholly, completely, and honestly. Too often, a device becomes part of a conversation, making it a conversation of three rather than two. The moment a connection between two individuals is severed by a screen, something is lost: a conversation that could have been had, an idea that will never come to fruition, a confession that will never be made, a dream that will never be supported, or a friendship that will never become deeper than sharing small talk over a cup of coffee.

The first step to healing our relationship with technology is simply acknowledging that there is an impact being made by technology at all. In order to decide what your attention is given to, you must first *pay attention* to where it is going. We must be aware, and we must look up. Making a conscious effort to notice when and why technology divides your attention is the key to limiting that behavior. We must be in control of our devices, they cannot control us. After we can recognize technology’s influence on our ability to give attention, make connections, and be creative, it would be natural to want to toss our devices out the window yesterday. However, complete elimination is impractical, and not a long-term solution. Restraint from something in actuality can reinforce an obsessive relationship with it. Telling yourself that “you cannot have x ” will ironically put it at the forefront of your mind constantly. Not only will it occupy more headspace than before, but it will become less about

doing without x and more about proving something to yourself. Regardless, complete restraint will not heal the relationship between you and x (Carr, 133). Try instead to find ways to use technology in a manner that positively impact your life. Technology has great potential to be used as a tool of attention, connection, creativity, and entertainment, but it is our responsibility to ensure that this is how we choose to use them.

I have chosen to explore this relationship between technology, boredom, and creativity through the medium of a podcast for a variety of reasons. Podcasts are typically listened to on devices, so while this may seem counterproductive to the initial research I have found about technology obsession, I am a firm believer in using technology as a tool. By using the resources I have available to me, I will be able to create, share, and reach an indefinite number of individuals through the use of this tool of technology. This only reinforces my findings that in order to improve our relationship with technology, we must first be aware and intentional about how we use it. Secondly, I have come to learn through my coursework that audio is, in fact, the most visual medium. While I could have created a documentary, photo series, or other visual presentation, I chose a format for this project that would allow my audience to completely disconnect from a screen. My hope is for their minds to imagine, create, and perhaps even wander when listening. The sheer unexercised power of the mind's imagination is the exact point I am hoping to get across to my audience. I hope they will envision the topic I am discussing within the confines of their own experience, and their own lives.

I have chosen to interview both professors, as well as children for my final piece. These interviews were not done in hopes of collecting data to be analyzed, but instead a personal perspective on the findings that I have made through my initial research. These

interviews are simply a narrative meant to run alongside my research, resulting in a creative piece to get my findings and message across. I use an emotional appeal by formatting these interviews into a narrated creative piece.

It is important to note that while this project requires statistics to back up the claims of technology use, as well as the science behind understanding the brain, above all it calls into question what I, the creator, value. There are plenty of examples and ways in which technology can be used to connect individuals, create, and help us become more in tune with ourselves. However, I have framed my findings in light of what I believe to be the more important aspects of our daily lives: attention to ourselves, face to face connection to others, and the creative endeavors that comes from those.

Ultimately, my goal for this podcast is to draw attention to the nature of the relationship that has developed between us and our devices. By hearing the testimonies and thoughts of other individuals in the podcast, I hope that my listeners will be able to personally relate to these individuals, and make an honest assessment about their priorities surrounding their devices. The entire process of improving our relationship with technology begins with awareness, so if my listeners can walk away from listening to my piece with nothing but a heightened awareness for the role their device plays in their attention or connection with others, then I have succeeded in my goal for this project.

Podcast Transcript

Transcript

Look Up: Technology's impact on attention, connection, and creativity

Liz Pope: This entire project actually started from one question that I've been sitting on for a few years now: how come I'm a genius in the shower? Seriously! Why is it that hopping into the shower results in this absurdly long list of ideas or plans that I want to explore? So, I did what any millennial would do, I pulled out my smartphone and Googled "good ideas in the shower?" I skimmed the results and landed on a general conclusion that not only made complete sense but also worried me. These bursts of creativity were being limited to just a few minutes a day because my shower forced to pay attention to the one thing that the rest of my daily world works so hard to distract me from: myself.

I want to preface my findings with this. Technology is not evil, it's not the enemy, or the antichrist, or what have you. In fact, technology has created possibilities for connection, creativity, and ingenuity in ways that benefit all of mankind. It is my hope, that this podcast will help raise awareness of the role devices play in our lives, their impact on our attention, and how we can learn to live in harmony with our devices, rather than in spite of them.

Jeff Goodman: Most of us know that feeling of: you eat one potato chip and it's really good! You know, it's salty and greasy. It's just perfect.

Liz: That's Jeff Goodman, professor of Media Studies at Appalachian State University, and personal hero.

Jeff: But, as soon as you swallow it you reach for the next potato chip. You don't just eat one potato chip, and it's hard to know when to even stop because you're never really full of potato chips. You get a little nauseated eventually, but you don't really get full of potato chips. That's a similar thing to what happens with screens I think, is that we never feel full, we always feel like we want one more, and we always feel a little bit nauseated--psychically or spiritually nauseated.

Liz: People, specifically young people, check their phones, on average, 150 times a day. What's even more terrifying is that we underestimate how much we check our phones by half. In a world of Facebook, Twitter, Snapchat, Instagram, emails, texts, calls, and Facetime, a single pop-up notification is all it takes for our device to seize our attention. Each ping acts as a hit of dopamine to the prefrontal cortex of the brain, a literal chemical reaction that feels good. We pick up our phones, cycle through our apps, and seek out the next ping or *tweet* This is exactly why the rhetoric surrounding device use mimics that of drug addiction. "I'm addicted to my phone, I can't put it down, I want to stop."

Jeff: It's scary. It's scary, and it's not like I'm like "Oh, I'm so scared about the world and all of those other suckers out there, I'm scared about what's happening to the next generation." I'm scared what's happening to me!

Liz: I sat down with a member of Generation Z, often referred to as Generation Net, as they are the only ones who cannot recall a time in their life without the Internet. This is Grace, a junior in high school.

Grace: When I'm really bored, like on a snow day or something, I'll get on Instagram too many times. And I'll just keep refreshing, and like, nobody is going to post every second of the day.

Liz: I asked later why she feels like she has to keep refreshing her feeds all of the time. She told me that she honestly just didn't want to miss an important post from one of her friends. This is the crux of this generation and their devices. They are constantly juggling the desire to know everything about the lives of their peers and a crippling anxiety of being out of the loop, resulting in compulsive overuse.

Liz: And it starts even younger than this. Here's Sid, age 10.

Sid: Kids my age have snapchat accounts, Instagram, Facebook, Twitter, like all of social media. They talk about "me and so and so were texting all night".

Liz: Why do you think people are so obsessed with it?

Sid: Because so many people do it, they don't want to be left out. They want to be the cool kids who have phones.

Liz: Gen Z is the perfect model of what writer Linda Stone refers to as continuous partial attention. It's the idea that in our attempt to be constantly connected, and constantly connecting, we are in fact dividing our attention among so many things, that no thing, no one, earns our full attention. We aren't diving deep. We're skimming the surface. And we aren't paying attention. To each other, to the world, and to ourselves.

Liz: Okay, back to my shower genius question. The inside of my shower is one of the only, if not the only place my phone will never see. It can't, it'll get wet. It's sad that that is the reality but, it's an incubator, from devices, distractions, and limitations. It's like a breath of fresh air for my mind...and I'm not alone. Cognitive psychologist Scott Barry Kaufman found that 72% of people around the globe reported experiencing new ideas in the shower.

How come? When our brains are left to wander, they enter a state referred to as the “default mode network” or sometimes, more playfully, the imagination network. It’s during this process that the brain engages in autobiographical mapping, a process that allows us to construct and reflect on our sense of self, and plan for the future. In other words, the more time we spend just with our thoughts, the more in-tune we are with who we are. Taking it a step further, when we understand ourselves, we are more readily available to understand others. We are able to show more empathy, compassion, and understanding.

Liz: So what happens when the moment our brains are given a free moment to breathe, to wander, to dream, to reflect, we instead compulsively fill the silence with a screen. In one study, 77% of 18-24-year-olds reported that they reach for their phones before doing anything else when nothing is happening. How is this behavior impacting our relationship with ourselves, and with others? Here’s Sid.

Sid: A lot of things I know about kids who have phones, another thing I don’t want to stereotype, but a lot of the time they aren’t very nice to me and my friends. Because I don’t know if that is because they are unstable, or what. I don’t know, they disrespect the teacher a lot, maybe because they want to spend time on their phone or something like that.

Liz: And here’s Grace.

Grace: If one person is mad at someone, and they want to get back at them. They’ll invite like all of their friends out and post pictures and stuff so that one person will see it. I think that’s awful. I hate it. I hate being left out like that. It’s annoying when you’re at dinner, and you’re not on your phone, but the other person is on their phone, and you want to have a conversation, but you know they won’t listen, so you’re just sitting there, waiting for them to get off of their phone, and they don’t. I’m trying to tell a joke, but you’re on your phone.

Liz: It would be stretch to say that our devices are making us soulless monsters. It would not, however, be a stretch to say that they are very good at seizing our attention, only to scatter it. It’s borrowing time from the interpersonal work that is necessary in order to empathize and connect with other human beings. Our devices merely are short-circuiting our priorities, and values---but not altering them.

Jeff: We’re so easily intrigued by the little boop that comes on our phone, that we’re willing to kill off the people around us in these tiny slow deaths. Which is like, “I’m not going to pay attention to you for this 15 seconds while I answer this email. It’s like I’m going to kill you for 15 seconds.”

Liz: I love my mom. I value our time together. I care about what she has to say. And yet, I will find myself scrolling through Twitter when she speaks to me. For what? At the end of the day, our devices are tools. If we aren't using them, then we are going to be used by them. Because that's what they are designed to do. The paychecks of app designers depend on how much we spend on their programs. But they aren't the enemy. There is no enemy here. It comes down to a question of our values. What do we prioritize in our lives? And what do we choose to leave on the back burner?

Jeff: Do you want to be doing the things that you're doing if it means being closer to death at the end of them? Well, gosh, that's true of everything you're doing. So, if I pick up my phone, and I go to whatever, is that what I want to be doing with the little bit of time I have between now and death.

Liz: Yeah, remember that one when you try reaching for your phone.

Jeff: Technology is often about disconnecting us. Right? We don't need any more video, or podcasts, or photographs. We need more people who pay attention. Who pay attention to what's in their heart, who pay attention to the people around them, the real people around them, who share food, and breathe in the same air, and are actually present with one another. And we need connection to the physical world. You need to find your way into a relationship with the things around you, despite the fact that the relationships that are calling the loudest right now tend to be relationships that are on your phone and on your computer.

Liz: Attention. Who deserves our attention? What gets our attention? All of it? Some of it? The average human attention span dropped from 12 to 8 seconds since the dawn of technology as we know it today.

Jeff: The heart of it for me is attention, and that is attention and appreciation are the precursors to creativity. It's a collaboration with the world, and to collaborate with the world. You must start by loving it or being intrigued by it. It doesn't have to be the thing that is most obviously beautiful. Sunlight on a turd can be a very beautiful thing, just the act of paying attention is a creative act. You are co-creating the world with your own imagination when you look at it carefully, and you kind of bring its magic into being through your mindset. So that's the heart of creativity. You don't even need to make anything!

Liz: This moment of Jeff's curiosity paints a pretty powerful picture.

Jeff: Do you think our conversation would have been any different if we had been in the dark?

Liz: Yes. What would be different about it do you think?

Jeff: I don't know. Can we turn the lights out? I'm going to put my hat over this. Okay, now its really pretty dark in here.

Liz: This is super dark now. I'm listening to my voice so much closer now. I wasn't even paying attention at all. It's suddenly so much quieter. It isn't, but it is.

Jeff: That is so weird, I'm having that exact same experience.

Liz: It's really strange.

Jeff: Wow!

Liz: It's like I wasn't listening to the silence at all, and now it's really quiet, and I'm not looking at my notes.

Jeff: And this is so analogous. Let me try an analogy, so the cell phone is like the lights. That is, it brightens stuff up so much that it distracts you from something else that's going on. And when you take it away, suddenly things are so different.

Jeff: "Let's turn the lights out," we never would e would have never gotten into a whispering mode

Liz: No.

Jeff: And it doesn't matter if your podcast uses this or not.

Liz: Okay, back again to my shower question. Perhaps the shower has unintentionally become my sacred place. Where I pay no attention to a screen and pay 100% attention to myself. This way, my mind is able to wander, question, ponder, dream, and create. But the entire world is not an incubator like my shower. Distractions are always at my fingertips. But, trying to eliminate technology completely would be similar to telling yourself "I'm not going to eat those potato chips." The more you tell yourself that you won't do something, the closer it will be to the forefront of your mind. Instead, start by doing this.

Jeff: So there's an idea that, I think it's Vidkenstein originally wrote about that where he says, "You can do what you want, but you can't want what you want" What he means by that is that you have free will to do what you want, but if you say, "I want to be the kind of person

who wants to go for a walk after dinner, but I'm not the kind of person who wants to go for a walk after dinner." I can't make myself be the kind of person who wants that. You can't have this secondary want, to want to want to something. Although, I don't agree with it and I will tell you why, and this is a key to my dealing with technology. So, if you ally something that you want to want to something that you actually want. So in my example of going for a walk after dinner, when I moved my chickens down to my garden which is about a half-mile from my house. I allied my desire to take a walk, which is something I wanted to want to do, I didn't actually want to do, to something that I really wanted, which is to keep my chickens safe. That's a natural thing, I don't have to work at that at all. Then I took the walk.

Liz: If you want to be the kind of person who doesn't sit on their phone at a meal, make a game out of it. The "phone stack" game originated from a grad student who was fed up with her friends texting at meals. Pile your phones in the middle of the table, and the first person to cave into a boop pays for the entire meal.

Jeff: You know, here's a thing. What if when you were on the phone because we're going to be on our phones later today we'll be looking stuff up, or doing whatever. What if we tried every time we were on the phone, or on the computer, to bring curiosity to what we were doing. So let's say you're looking at Instagram, and instead of just having the response, the emotional hit, "That's cool. That's beautiful. I wish I was that person. I wish my life was that. I wish I had taken that photo, whatever all the thing you might feel." What if you were to ask yourself some question about the thing, you made yourself ask a question? What if there were another thing other than like, what word would I want to put there? What if I could hit the pudding button?

Liz: There are simple ways to take control of our relationship with our devices. And no one said this was going to be easy. It's a learning experience, it's not going to happen overnight either. It's going to take work.

Jeff: We have to be practicing, and pushing ourselves out of our comfort zone a little bit. And being honest with ourselves that we are falling into habits, or that our kids are, I think it's a lot of work. But people have to practice being with other people. I've been pretty negative about technology, about how hard it's going to be, and how hard we have to work, but on the other hand I have a great optimism about human resilience, and I don't want to be a Pollyanna about it because I think there are really big deals going on. But when I meet my students, and we have experiences together, semester after semester, great stuff happens when human beings get together and they give themselves the opportunity to play, and they give themselves the opportunity to create. They tap into their ancient desire to be in community, and they tap into their ancient desire to connect to the physical world, and the smell of spring, and the look of rain falling into a puddle, and they tap into their ancient

desire to figure out what is in their heart, and what they are curious about, and what they have questions about. Over and over my students find their way back to that if given the circumstances, and people can say “Oh! I want more of that. That feels really good, that feels like real food, not like potato chips.”

Liz: Dr. Theresa Redmond, media maker, professor of media studies, and mother of two.

Theresa Redmond: In other words, learning doesn't happen in a vacuum, it happens when people come together and they tackle hard problems. What if you wanted to know the size of Jupiter? And you just go to your phone, and there it is: the size of Jupiter. It kind of stunts the natural curiosity that people have, and we definitely have young people have this, I have a 4-year-old and a 3-year-old, and they are both just ravenous to learn more about the world. We do see a bit of this dulling, and I don't necessarily think it's actually dulled. I think as young people go through the school system, information becomes the golden ticket, either you have it or you don't, and the process becomes less important. That when you say, “Wait a second, let's not look at Google, let's not let the wonder kill our curiosity. Let's explore this, let's talk about this.” Well, you might find yourself going down a twisting turning conversation path where you learn more about each other as people, and about your own interests. Maybe you're sitting around your dorm room and you wanted to know the size what the size of Jupiter was, and you find out that one of your roommates is actually really interested in chemistry. And why didn't they pursue chemistry? Well, maybe they're female and it's part of that whole “See Jane” we don't see women in roles of Science, Technology, Engineering, and Math and then you get into a conversation about media...

Liz: Dr. Redmond brings it right back to the kids, what we want for ourselves, and what we want for them.

Theresa: I was really nervous, and afraid of how to tackle issues of technology addiction, or over-reliance, or engagement with my kids. And, what I have found is really simple. John, and I, my partner, aren't on our phones a lot, and so our kids aren't.

Grace: I just think we're on our phones way too much, and we don't take advantage of the outdoors, and family time--especially family time. My friends, they do not understand quality family time, and it annoys me because your family is not always going to be there for you, so you need to take advantage.

Jeff: So now, as adults, we have to set up circumstances where, again, the things that we want him to want, are allied to the things that he actually wants. He actually wants connections with his parents, so if you want your kid to want to be in the physical world, to continue to do that in the face of all of the technology, you have to ally it to hanging out with

him. Cook! I want to cook with him. Bake bread, oh, kneading bread, making pasta. He's with grandpa, and Grandpa Jeff he always make, but then we eat it! I want to build a fort with him, and I can't wait to plant seeds with him, and I can't wait to play Legos with him. I can't wait to teach him how to program a Lego robot, I'm not going to say, "Oh, because it's technology, it's bad," but the most important part of all of those sentences with "with him" part.

Liz: By the time we're, like whatever our average life is, so like 75 or 80 years old, we will have spent 11 years looking at a phone. That's more than your life so far.

Sid: Woah. Yeah, that's...wow.

Liz: Do you think you'll be the one of those?

Sid: I don't know. It depends on the kind of person I turn out to be. I want to be the person that pays attention in class, but I don't know. I just don't know yet.

Liz: Attention. Connection. Creativity. Why do they matter?

Jeff: Why is being creative important to you?

Liz: I like being able to just go in any direction, there aren't any boundaries. It's everything that you are is your creativity. It's everything that you have experienced.

Jeff: Oh! That ties into something, you were making me think about my dad, and about how there's a way in which when I'm being creative I'm honoring some people in my past--my friend Vince also, who died very young of Lou Gehrig's disease. And that, there's a way in which, by not sticking to the path of and allowing myself to explore the edges, I can evoke the patterns that my dad, and my friend Vince, and others left in me. So, if I just go by what is just the standard way of saying, you know, "I like that. That's good." You know, all the standard ways of talking, I am not honoring these specific people who left specific traces in my psyche, specific ways of thinking, and joys, and humor in my psyche, and when I am creative, I feel like I am allowing them to speak through me, whether or not they would have said the exact thing. It's their imprint on me which says "pudding" instead of, "I'm great."

Liz: And in that way, they're living on in anything that you create, or do.

Jeff: Yeah! They're in this conversation. My friend Vince, he didn't go to college originally, his family hadn't much gone to college, and so I went off to college and he did some community college classes, and he was being a mechanic, and doing sculpture and various

things, and teaching himself things. He came when I was a senior in college to the house I lived in with some friends, and we were all getting ready to graduate and everyone was writing their senior thesis, and being so full of themselves about how great they were. He showed up, one thing, he came in a car that he had taken all of the seats out of and the dashboard off of, so it was just a boil of wires where the dashboard was and started it by shorting it out with a screwdriver, and he filled the car up with sticks and rocks and moss, because he wanted to feel like what it would feel like to be outdoors, he had one driver's seat, but the rest was outdoor stuff, big boulders and moss draped over the back. And he said, "Yeah, I wanted to feel like driving a long distance, you were outdoors kind of." And then one morning we're sitting at breakfast, and drinking some juice, and on the label of the juice it says the ingredients, and he says cochineal as one of the ingredients. And he says, "What's cochineal?" And we're like, "We don't know what cochineal is?" And he's like, "Come on you college kids! What's cochineal? Does anybody have a dictionary?" So he gets a dictionary, and he looks it up. Turns out cochineal is an extract from a beetle. And he's like, "Wait a minute! Vegetarians can't drink this juice!" It's a colorant, turns out, that they use to make pink-ish, I think. He's like, "Vegetarians can't drink this juice!" And I remember my friends looking at me, and they're like, "Who is this guy?! We've been to four years of this private college, and here he's been to two community college classes or something, and he's smarter and more curious than anybody we know at this whole university! He's amazing." Anyway, he went on to get, to work in math and philosophy, and he was working towards his undergrad when he got sick and died at 30, or 31 of Lou Gehrig's disease. So, I kind of owe it to him to push the boundaries of my own thinking. So, there's an example where it might be hard to put my phone away, and think something brand new, be bored for a little bit, and then have an idea. But, I have to do that to honor him, and he's here today with you.

Liz: He's right here.

Jeff: With my dad. And you know, my dad is right here with your grandparents, you know, all of the people who formed you. My dad, and your dad, and Vince are all hanging out, in this room, in this conversation...in the dark.

Liz: So, the world can't be our shower. But we can put ourselves in situations, and we can mindfully give our full attention to the things, ideas, and people that align with what we value, what we care about. So, maybe the next time you hear a *ding* think instead about what you stand to lose: a conversation never had, an idea never thought of, a connection never made, a dream never be supported, or a person's life never honored. Instead, why don't you look up?

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I'm Liz Pope, and thank you, listener, for your attention.

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