

Focus On An Issue

Beyond ‘turn it off’: How to advise families on media use

by **Ari Brown, M.D., FAAP**, **Donald L. Shifrin, M.D., FAAP**,
and **David L. Hill, M.D., FAAP**

When families seek our professional advice on managing technology in their children’s lives, we turn to research-based AAP guidelines that promote positive media use and discourage potentially harmful use.

The most well-known of these guidelines discourage “screen time” for children under age 2 and limit “screen time” to two hours a day for children over age 2 (*Pediatrics*. 2013;132:958-961; *Pediatrics*. 2011;128:1040-1045). As we know, however, scientific research and policy statements lag behind the pace of digital innovation.

Case in point: The 2011 AAP policy statement *Media Use by Children Younger Than Two Years* was drafted prior to the first generation iPad and explosion of apps aimed at young children.

Today, more than 30% of U.S. children first play with a mobile device when they still are in diapers, according to Common Sense Media. Furthermore, almost 75% of 13- to 17-year-olds have smartphones, and 24% admit using their phones almost constantly, according to the Pew Research Center.

In a world where “screen time” is becoming simply “time,” our policies must evolve or become obsolete. The public needs to know that the Academy’s advice is science-driven, not based merely on the precautionary principle.

Toward this goal, the Academy convened the invitation-only Growing Up Digital: Media Research Symposium in May. Supported by the AAP Friends of Children Fund, this two-day event brought together leading social science, neuroscience and media researchers, educators, pediatricians, and representatives from key partner organizations. The goals: evaluate available data, identify research gaps, and consider how to provide thoughtful, practical advice to parents based on the evidence.

Given the breadth of the topic, the symposium limited its focus to early learning, game-based learning, social/emotional and developmental concerns, and strategies to foster digital citizenship.

The following key messages for parents emerged:

- **Media is just another environment.** Children do the same things they have always done, only virtually. Like any environment, media can have positive and negative effects.
- **Parenting has not changed.** The same parenting rules apply to your children’s real and virtual environments. Play with them. Set limits; kids need and expect them. Teach kindness. Be involved. Know their friends and where they are going with them.



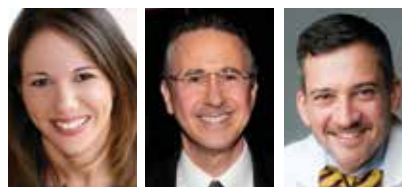
A number of key messages for parents emerged from the AAP Growing Up Digital: Media Research Symposium. Among them is that family participation with media facilitates social interactions and learning. Parents should play a video game with their kids, and always co-view with infants and toddlers.

- **Role modeling is critical.** Limit your own media use, and model online etiquette. Attentive parenting requires face time away from screens.
- **We learn from each other.** Neuroscience research shows that very young children learn best via two-way communication. “Talk time” between caregiver and child remains critical for language development. Passive video presentations do not lead to language learning in infants and young toddlers. The more media engender live interactions, the more educational value they may hold (e.g., a toddler chatting by video with a parent who is traveling). Optimal educational media opportunities begin after age 2, when media may play a role in bridging the learning achievement gap.
- **Content matters.** The quality of content is more important than the platform or time spent with media. Prioritize how your child spends his time rather than just setting a timer.

- **Curation helps.** More than 80,000 apps are labeled as educational, but little research validates their quality (Hirsh-Pasek K, *Psych Science*. 2015;16:3-34). An interactive product requires more than “pushing and swiping” to teach. Look to organizations like Common Sense Media (www.commonsensemedia.org) that review age-appropriate apps, games and programs.
- **Co-engagement counts.** Family participation with media facilitates social interactions and learning. Play a video game with your kids. Your perspective influences how your children understand their media experience. For infants and toddlers, co-viewing is essential.
- **Playtime is important.** Unstructured playtime stimulates creativity. Prioritize daily unplugged playtime, especially for the very young.
- **Set limits.** Tech use, like all other activities, should have reasonable limits. Does your child’s technology use help or hinder participation in other activities?
- **It’s OK for your teen to be online.** Online relationships are integral to adolescent development. Social media can support identity formation. Teach your teen appropriate behaviors that apply in both the real and online worlds. Ask teens to demonstrate what they are doing online to help you understand both content and context.
- **Create tech-free zones.** Preserve family mealtime. Recharge devices overnight outside your child’s bedroom. These actions encourage family time, healthier eating habits and healthier sleep.
- **Kids will be kids.** Kids will make mistakes using media. These can be teachable moments if handled with empathy. Certain aberrations, however, such as sexting or posting self-harm images, signal a need to assess youths for other risk-taking behaviors.

Digital life begins at a young age, and so must parental guidance. Children who are “growing up digital” should learn healthy concepts of digital citizenship.

The Academy and pediatricians have a crucial role in translating ongoing media research into practical, evidence-based advice. As such, formal recommendations are forthcoming, and the role of media in children’s lives will be the focus of the Pediatrics for the 21st Century (Peds21) program prior to the 2016 AAP National Conference & Exhibition. Until then, we can use these key messages to inform and empower families.



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RESOURCE

A document detailing the proceedings of the Growing Up Digital: Media Research Symposium is available at https://www.aap.org/en-us/Documents/digital_media_symposium_proceedings.pdf.

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MEDIA MOMS & DIGITAL DADS

A FACT NOT FEAR
APPROACH TO
PARENTING IN
THE DIGITAL AGE

YALDA T. UHLS, PHD

The average American child spends more time with media than with parents or in school. Technological advancements, which put us in a culture that's connected 24–7, develop so quickly it's difficult for parents to keep up. All too often, children seem like they are one step ahead. These days it takes a village online and offline to raise a child.

Media are not going away, and technology will only further facilitate the growth and use of digital tools in our 24–7 globally connected world.

MEDIA MOMS AND DIGITAL DADS: A Fact-Not-Fear Approach to Parenting in the Digital Age, a balanced and practical source that explores commonly held adult concerns about parenting in the digital age, is for parents, educators and any adult interested in the relevant

social science research. The book offers practical advice, with summaries of the research and takeaways that adults can proactively act upon.

6 Recommendations for Media Moms & Digital Dads

1. **Role model.** Every adult who wants to help children navigate the digital world should consider carefully his or her own media behavior.
2. **Set device-free time.** Build times into the day and week when the entire family signs off from gadgets and the Internet.
3. **Look toward the positive.** If you don't want your children to tune you out, try not to be negative 100 percent of the time about your child's media choices.
4. **Pay attention to the content.** Recent research indicates that content choices are more important than setting limits. Great resources exist to help you find the "good stuff" and avoid the "bad stuff."
5. **Model technology like a tool, not a treat.** Teach your child that technology is something that can help them to be productive and creative, not something to crave. By modeling (and narrating) that when you use media for work, to communicate, or even to relax in a measured manner, you will show them best practices for their own media life and habits.
6. **Look for teachable moments in the real world.** Use real-life incidents from the news to share both positive and negative stories that may resonate for tweens and teens.

Resources for Media Moms & Digital Dads

1. For free ratings, reviews and educational resources, visit **Common Sense Media**
2. For **Teachable moments**, fun videos and other content, to share with your children ripped from media headlines, visit yaldatuhls.com.
3. For the latest comprehensive **research** on the Internet & Society and adolescent media use, visit <http://www.pewinternet.org/>

<http://www.yaldatuhls.com>

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4. For information about schools across the US and other parenting articles, visit Greatschools.org.

About the Author

Yalda T. Uhls, MBA, PhD, is an award-winning child psychologist researcher and leading expert in how media affects children. She is an unequalled and balanced voice in helping parents and educators navigate the overwhelming landscape of opinions, research, facts, conversation, and misinformation surrounding the impact of media on children. In addition to her consulting and other work, Dr. Uhls works with Common Sense Media, a national non-profit, as their Director of Creative Community Partnerships and also does research with UCLA. Prior to her academic career, Yalda spent over fifteen years as a senior entertainment executive and producer at studios such as Sony and MGM. Most importantly, she is a mom of two digital teens (a boy and a girl).

<http://www.yaldatuhls.com>

Why experts keep changing the recommendations for children and screens

Screen time WHY PARENTS MATTER

Children ages 8-18 spend **7.5 hours** each day in front of a non-school related screen



This same age group spends an estimated **25 minutes** per day reading books

However, children whose parents set rules about screen time spend about **three fewer hours** in front of screens than those who don't have rules.

SOURCE: Kaiser Family Foundation

DESERET NEWS GRAPHIC



3 photos >

SLIDESHOW

onto the device while protecting the screen from “dribbles and drool.” There’s even a potty training seat with a tablet holder.

These items get at the heart of the issue Uhls addresses in her new book, “Media Moms and Digital Dads: A Fact-Not-Fear Approach to Parenting in the Digital Age.” Technology has become an unavoidable reality of everyday life, but when should it become a reality for children?

“In the beginning, people either loved technology so much that they thought it was the answer to everything or they were terrified and said it would ruin everybody,” Uhls said. “Now the data is starting to support that it's neither and there is no perfect answer.”

The once-ubiquitous question of how much screen time is itself outdated. Now the debate has shifted to which devices children should be exposed to first, the best content they should immerse themselves in and how different sorts of media may impact them at different ages, leaving researchers and doctors scrambling to keep up as technology changes — a nearly impossible task, Uhls said.

“Mobile is one of the fastest-growing technologies ever,” Uhls said. “With other things like cars or something, you had to develop skills and understanding over time to use it, but this keeps getting easier and easier and now kids can use it.”

Screen time for children and teens has been debated since the American Academy of Pediatrics

(AAP) made its initial recommendation in 1999 for limiting TV for children under 2. In 2011, AAP pediatrician Dr. Ari Brown co-authored a groundbreaking recommendation that became the go-to

Searching for evidence of how mobile devices have changed childhood and parenting, child psychologist and media effects expert Yalda Uhls suggests a quick Amazon.com search.

Within seconds, Amazon produces a long list of staples of American childhood with a twist — many have been altered to incorporate tablet use into an infant’s daily routine.

A bouncy chair (albeit discontinued, but still in stock) aptly named the “Apptivity seat” features a secure rod that suspends a mirror overhead, which doubles as an iPad holder. There are tablet cases designed to make it easier for kids to hold

response for medical professionals and concerned parents alike: All screen time for children under 2 should be avoided.

Yet that recommendation was obsolete before it was even published, Brown says, since the Apple iPad was released the year before, ostensibly changing everything from what content was available for babies and children to how easy it was for any age to use mobile technology.

“Literally, we were writing a policy statement and then the first iPad came out and the app revolution began,” Brown said.

Now, almost five years later, Brown says the rules continue to evolve — prompting the AAP to announce this month that it plans to revisit its 2011 policy.

A new policy, expected sometime in 2016, will be based on the latest research from different fields (including neuroscience and education) that didn’t exist when Brown and her colleagues drafted their last policy. Brown’s hope is that upon review, the research will be able to answer some of the questions that have vexed pediatricians and parents for years about children and mobile technology.

”It’s not that we’re throwing up our hands and saying this is okay, it’s that we’ve learned some interesting stuff, the facts are different and the media has changed,” Brown said. “In the world of technology, five years is a really long time. Science doesn’t move that fast.”

But others, like psychologist and author Jim Taylor, are worried that any relaxation of the existing policy could be putting kids at risk and enabling parents to make poor decisions about their children’s media use.

“For me, suggesting that guidelines need to be changed because the policy is out of touch is akin to increasing the healthy amount of sugar kids can eat because people still give their kids junk food,” Taylor said. “The times may have changed, but what’s healthy for kids hasn’t.”

Quality vs. quantity

Concern over the media children and teens are exposed to is nothing new — as Uhls points out in her book, parents of the past worried that exposure to dime novels, radio and then television would somehow ruin youths and put them on a dangerous path.

But this time, with the advent of mobile technology, could alarm be the appropriate response? Yes and no, Brown and Uhls say.

While the AAP’s announcement may seem like a shift on its earlier recommendations, Brown says the AAP recognizes that the Internet and mobile technology are different from any other media that’s come before it.

“In no way are we relaxing our policies,” Brown said. “If anything we’re more concerned than ever because it’s taking over everyone’s time. It’s ubiquitous and it’s ever-present.”

Yet Brown and Uhls both posit through new research that a black-and-white approach to media simply doesn’t work anymore. Rather, they argue that because media is more nuanced than ever, it’s impossible to label media use as good or bad.

"It's not a straight story," Uhls said. "Media has so many different uses and iterations now that you cannot say, 'Yes, all of it is good' or it's not."

Brown pointed to child brain activity using different kinds of technology to teach children foreign languages, based on a 2003 [University of Washington study](#) as an example of the potential benefits the AAP will scrutinize.

"In a passive video where an English-speaking child is hearing a teacher speaking Mandarin, there's no brain activity. But if you look at the child having a video chat with a person who is talking to them directly, there's a whole lot of brain activity," Brown said. "Not all media is created equal. There are opportunities and risks."

But Taylor argues that while content can contribute negatively or positively to a child's development and well-being, just the amount of time being spent in front of screens — any screen — can be detrimental.

"The difference is sheer volume. The AAP says they're doing this to create balance, but balance is about setting limits, and right now there is no balance," Taylor said. "Sure, there's really bad content out there, but just the time in front of the screen is a huge problem."

Taylor worries that because technology's potential impact on child development — from [social skills](#) to [identity formation](#) — can take years to reveal itself, the issue isn't as pressing for parents as other risks like juvenile diabetes or exposure to lead paint.

"It's really less clear in terms of harm," Taylor said. "It's like junk food — most parents today know how bad it is, but they give it to their kids anyway."

Brown emphasized that any reconsideration of the AAP's policy doesn't mean parents can stop worrying about screen time for kids.

"We acknowledge that parents are clearly deciding when to introduce their child to tech, and that's every parent's choice," Brown said. "What we want to say to parents is be empowered and informed about where you're introducing it, how you're doing it and how involved you are in the technology, because it matters."

Digital parenting

In reviewing research that's begun exploring the impact of technology on children, Brown says one critical, overlooked factor has come to the foreground: The role of parents.

"It starts with you, the parent," Brown said. "It's easy to give a child a screen, but it's important to be present in your child's life and know your kids are watching you."

That may sound obvious, but as Uhls outlines in her book, the way parents role model technology use is more crucial than previously known. The 2003 [University of Washington study](#) Brown cited concluded that infants learn primarily through observation of adults.

A 2009 Italian [brain study](#) of primates identified what are now known as mirror neurons, or brain cells that become active or "fire" whether the brain performs an action or merely observes someone else doing it. The study found that mirror neurons in apes fired when they ate food, when they saw others eating and even when they saw humans eating.

The same is true for humans.

Just as children learn how to smile, talk or walk from their parents' example, they also learn how important an object is through the emphasis adults place on it, Uhls wrote. This is what researchers call joint attention — when a person alerts another to an object by pointing or gazing. Babies instinctively follow a parent's gaze or hand and file away what they see. If they frequently see phones or tablets, Uhls said, mirror neurons fire and the child will naturally try to mimic their parents' technology use.

“When a baby begins to meaningfully follow your gaze, or your finger, she can start to share your experience and knowledge,” Uhls wrote. “Model the kind of media behavior you want your child to emulate.”

Similarly, if babies see their parents paying more attention to screens than looking at people's faces, they will absorb that behavior — putting their social development at serious risk.

“Watching faces provides children with essential facts for survival: Whom can I trust, who will love me, and who is scary,” Uhls wrote. “A screen may entertain a young baby, but too much time in front of a screen, in particular when the child is immobile, could affect healthy development and critical early learning.”

At the same time, Uhls and Brown say some technology can facilitate healthy one-on-one interaction, especially in children a year or older.

“Our concern is, your time would be better spent doing something else (than engaging with screens), but what if you're having a video chat with a grandparent?” Brown said. “Two-way communication is really important and the more technology facilitates two-way communication or approximating social interactions, the more valuable it is.”

Taylor agreed that parents must think seriously before using the tablet, TV or smartphone as a baby sitter.

“People don't park their kids in front of a screen for their own best interest,” Taylor said. “They do it because it gives parents the time to devote to *their* own best interests and relieves them of having to engage with their children.”

Uhls said whatever the outcome of the AAP's dive into the new research, parents can no longer unconsciously use mobile technology or passively shrug off their children's use of such devices. Doctor recommendations will always change, she says, but the duty of being a responsible, informed parent will never go away.

“It's time to be a digital parent and parent your kids online just as you would offline,” Uhls said. “If there are 15 studies all saying that kids are benefiting from media use, you should believe it, but that doesn't mean you don't have to think about it.”

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SundayReview | OPINION

Stop Googling. Let's Talk.

By SHERRY TURKLE SEPT. 26, 2015

COLLEGE students tell me they know how to look someone in the eye and type on their phones at the same time, their split attention undetected. They say it's a skill they mastered in middle school when they wanted to text in class without getting caught. Now they use it when they want to be both with their friends and, as some put it, "elsewhere."

These days, we feel less of a need to hide the fact that we are dividing our attention. In a 2015 study by the Pew Research Center, 89 percent of cellphone owners said they had used their phones during the last social gathering they attended. But they weren't happy about it; 82 percent of adults felt that the way they used their phones in social settings hurt the conversation.

I've been studying the psychology of online connectivity for more than 30 years. For the past five, I've had a special focus: What has happened to face-to-face conversation in a world where so many people say they would rather text than talk? I've looked at families, friendships and romance. I've studied schools, universities and workplaces. When college students explain to me how dividing their attention plays out in the dining hall, some refer to a "rule of three." In a conversation among five or six people at dinner, you have to check that three people are paying attention — heads up — before you give yourself permission to look down at your phone. So conversation proceeds, but with different people having their heads up at different times. The effect is

what you would expect: Conversation is kept relatively light, on topics where people feel they can drop in and out.

Young people spoke to me enthusiastically about the good things that flow from a life lived by the rule of three, which you can follow not only during meals but all the time. First of all, there is the magic of the always available elsewhere. You can put your attention wherever you want it to be. You can always be heard. You never have to be bored. When you sense that a lull in the conversation is coming, you can shift your attention from the people in the room to the world you can find on your phone. But the students also described a sense of loss.

One 15-year-old I interviewed at a summer camp talked about her reaction when she went out to dinner with her father and he took out his phone to add “facts” to their conversation. “Daddy,” she said, “stop Googling. I want to talk to you.” A 15-year-old boy told me that someday he wanted to raise a family, not the way his parents are raising him (with phones out during meals and in the park and during his school sports events) but the way his parents think they are raising him — with no phones at meals and plentiful family conversation. One college junior tried to capture what is wrong about life in his generation. “Our texts are fine,” he said. “It’s what texting does to our conversations when we are together that’s the problem.”

It’s a powerful insight. Studies of conversation both in the laboratory and in natural settings show that when two people are talking, the mere presence of a phone on a table between them or in the periphery of their vision changes both what they talk about and the degree of connection they feel. People keep the conversation on topics where they won’t mind being interrupted. They don’t feel as invested in each other. Even a silent phone disconnects us.

In 2010, a team at the University of Michigan led by the psychologist Sara Konrath put together the findings of 72 studies that were conducted over a 30-year period. They found a 40 percent decline in empathy among college

students, with most of the decline taking place after 2000.

Across generations, technology is implicated in this assault on empathy. We've gotten used to being connected all the time, but we have found ways around conversation — at least from conversation that is open-ended and spontaneous, in which we play with ideas and allow ourselves to be fully present and vulnerable. But it is in this type of conversation — where we learn to make eye contact, to become aware of another person's posture and tone, to comfort one another and respectfully challenge one another — that empathy and intimacy flourish. In these conversations, we learn who we are.

Of course, we can find empathic conversations today, but the trend line is clear. It's not only that we turn away from talking face to face to chat online. It's that we don't allow these conversations to happen in the first place because we keep our phones in the landscape.

In our hearts, we know this, and now research is catching up with our intuitions. We face a significant choice. It is not about giving up our phones but about using them with greater intention. Conversation is there for us to reclaim. For the failing connections of our digital world, it is the talking cure.

The trouble with talk begins young. A few years ago, a private middle school asked me to consult with its faculty: Students were not developing friendships the way they used to. At a retreat, the dean described how a seventh grader had tried to exclude a classmate from a school social event. It's an age-old problem, except that this time when the student was asked about her behavior, the dean reported that the girl didn't have much to say: "She was almost robotic in her response. She said, 'I don't have feelings about this.' She couldn't read the signals that the other student was hurt."

The dean went on: "Twelve-year-olds play on the playground like 8-year-olds. The way they exclude one another is the way 8-year-olds would play. They don't seem able to put themselves in the place of other children."

One teacher observed that the students “sit in the dining hall and look at their phones. When they share things together, what they are sharing is what is on their phones.” Is this the new conversation? If so, it is not doing the work of the old conversation. The old conversation taught empathy. These students seem to understand each other less.

But we are resilient. The psychologist Yalda T. Uhls was the lead author on a 2014 study of children at a device-free outdoor camp. After five days without phones or tablets, these campers were able to read facial emotions and correctly identify the emotions of actors in videotaped scenes significantly better than a control group. What fostered these new empathic responses? They talked to one another. In conversation, things go best if you pay close attention and learn how to put yourself in someone else's shoes. This is easier to do without your phone in hand. Conversation is the most human and humanizing thing that we do.

I have seen this resilience during my own research at a device-free summer camp. At a nightly cabin chat, a group of 14-year-old boys spoke about a recent three-day wilderness hike. Not that many years ago, the most exciting aspect of that hike might have been the idea of roughing it or the beauty of unspoiled nature. These days, what made the biggest impression was being phoneless. One boy called it “time where you have nothing to do but think quietly and talk to your friends.” The campers also spoke about their new taste for life away from the online feed. Their embrace of the virtue of disconnection suggests a crucial connection: The capacity for empathic conversation goes hand in hand with the capacity for solitude.

In solitude we find ourselves; we prepare ourselves to come to conversation with something to say that is authentic, ours. If we can't gather ourselves, we can't recognize other people for who they are. If we are not content to be alone, we turn others into the people we need them to be. If we don't know how to be alone, we'll only know how to be lonely.

A VIRTUOUS circle links conversation to the capacity for self-reflection. When we are secure in ourselves, we are able to really hear what other people have to say. At the same time, conversation with other people, both in intimate settings and in larger social groups, leads us to become better at inner dialogue.

But we have put this virtuous circle in peril. We turn time alone into a problem that needs to be solved with technology. Timothy D. Wilson, a psychologist at the University of Virginia, led a team that explored our capacity for solitude. People were asked to sit in a chair and think, without a device or a book. They were told that they would have from six to 15 minutes alone and that the only rules were that they had to stay seated and not fall asleep. In one experiment, many student subjects opted to give themselves mild electric shocks rather than sit alone with their thoughts.

People sometimes say to me that they can see how one might be disturbed when people turn to their phones when they are together. But surely there is no harm when people turn to their phones when they are by themselves? If anything, it's our new form of being together.

But this way of dividing things up misses the essential connection between solitude and conversation. In solitude we learn to concentrate and imagine, to listen to ourselves. We need these skills to be fully present in conversation.

Every technology asks us to confront human values. This is a good thing, because it causes us to reaffirm what they are. If we are now ready to make face-to-face conversation a priority, it is easier to see what the next steps should be. We are not looking for simple solutions. We are looking for beginnings. Some of them may seem familiar by now, but they are no less challenging for that. Each addresses only a small piece of what silences us. Taken together, they can make a difference.

One start toward reclaiming conversation is to reclaim solitude. Some of

the most crucial conversations you will ever have will be with yourself. Slow down sufficiently to make this possible. And make a practice of doing one thing at a time. Think of unitasking as the next big thing. In every domain of life, it will increase performance and decrease stress.

But doing one thing at a time is hard, because it means asserting ourselves over what technology makes easy and what feels productive in the short term. Multitasking comes with its own high, but when we chase after this feeling, we pursue an illusion. Conversation is a human way to practice unitasking.

Our phones are not accessories, but psychologically potent devices that change not just what we do but who we are. A second path toward conversation involves recognizing the degree to which we are vulnerable to all that connection offers. We have to commit ourselves to designing our products and our lives to take that vulnerability into account. We can choose not to carry our phones all the time. We can park our phones in a room and go to them every hour or two while we work on other things or talk to other people. We can carve out spaces at home or work that are device-free, sacred spaces for the paired virtues of conversation and solitude. Families can find these spaces in the day to day — no devices at dinner, in the kitchen and in the car. Introduce this idea to children when they are young so it doesn't spring up as punitive but as a baseline of family culture. In the workplace, too, the notion of sacred spaces makes sense: Conversation among employees increases productivity.

We can also redesign technology to leave more room for talking to each other. The “do not disturb” feature on the iPhone offers one model. You are not interrupted by vibrations, lights or rings, but you can set the phone to receive calls from designated people or to signal when someone calls you repeatedly. Engineers are ready with more ideas: What if our phones were not designed to keep us attached, but to do a task and then release us? What if the communications industry began to measure the success of devices not by how much time consumers spend on them but by whether it is time well spent?

It is always wise to approach our relationship with technology in the context that goes beyond it. We live, for example, in a political culture where conversations are blocked by our vulnerability to partisanship as well as by our new distractions. We thought that online posting would make us bolder than we are in person, but a 2014 Pew study demonstrated that people are less likely to post opinions on social media when they fear their followers will disagree with them. Designing for our vulnerabilities means finding ways to talk to people, online and off, whose opinions differ from our own.

Sometimes it simply means hearing people out. A college junior told me that she shied away from conversation because it demanded that one live by the rigors of what she calls the “seven minute rule.” It takes at least seven minutes to see how a conversation is going to unfold. You can't go to your phone before those seven minutes are up. If the conversation goes quiet, you have to let it be. For conversation, like life, has silences — what some young people I interviewed called “the boring bits.” It is often in the moments when we stumble, hesitate and fall silent that we most reveal ourselves to one another.

The young woman who is so clear about the seven minutes that it takes to see where a conversation is going admits that she often doesn't have the patience to wait for anything near that kind of time before going to her phone. In this she is characteristic of what the psychologists Howard Gardner and Katie Davis called the “app generation,” which grew up with phones in hand and apps at the ready. It tends toward impatience, expecting the world to respond like an app, quickly and efficiently. The app way of thinking starts with the idea that actions in the world will work like algorithms: Certain actions will lead to predictable results.

This attitude can show up in friendship as a lack of empathy. Friendships become things to manage; you have a lot of them, and you come to them with tools. So here is a first step: To reclaim conversation for yourself, your friendships and society, push back against viewing the world as one giant app.

It works the other way, too: Conversation is the antidote to the algorithmic way of looking at life because it teaches you about fluidity, contingency and personality.

This is our moment to acknowledge the unintended consequences of the technologies to which we are vulnerable, but also to respect the resilience that has always been ours. We have time to make corrections and remember who we are — creatures of history, of deep psychology, of complex relationships, of conversations, artless, risky and face to face.

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