 Attention, much like your daily allowance of money is a limited resource and in any particular moment, you can only have that much of it. - We live in an age of constant distractions nine to five is out, 24/7 is in. With my smartphone in hand I bring my work with me everywhere but our devices make us less attentive. Having spent 10 years doing research in neurobiology, I wondered what technology does to our brains. I set out to understand the science of distractions and learn how to be more focused and boost our productivity. By some measures we're bombarded by more than 63 notifications a day. We receive over 90 emails and write about 40 of them. On average we switch tasks every three minutes. When we face distractions two areas of the brain, the parietal cortex and the frontal cortex are in a sort of tug of war with each other. Some research suggests that the parietal cortex responds to distractions, the frontal cortex which is involved in cognitively demanding tasks helps us maintain focus. So we get distracted if the activity of the parietal cortex gets through to the frontal cortex. If the frontal cortex can keep the parietal in check, you stay focused. The brain is deciding what's important and what's not and that takes effort. - Even when you're cleaning your mailbox and you're not actually doing hard cognitive work, you kinda actually are because there's all these essentially micro decisions. Looking at this email, do I need this, and so each of those decision requires a little bit more of cognitive effort and so but when you add 2,000 of those, you end up with no, no power to make any other important decisions after that, if you deplete it. - Tell me a little bit about the study that you did focused on email. - What we found was that checking email more frequently throughout the day was associated with feeling more stressed and overwhelmed. - [Daniela] In the study, one group of people were asked to check their email whenever they wanted throughout the day while the other group had to do it in batches. - We found that people who batched their emails three to five times a day felt less stressed and less overwhelmed. - Why are these tasks that seem really menial, why are they so stressful and anxiety inducing? - You're basically doing something that other people need. Let's imagine that attention is this calm lake or you know the reflecting pool and then each notification is a little drop in that lake. We can think of the reflectiveness as you know the ability to actually focus on what's going on around us but when we have all these drops all the time, now you get a reflecting pool disturbed and frazzled. - [Daniela] If email is like rain, notifications seem like a storm to our productivity and our ability to focus. The higher the cognitive load the more susceptible we are to new distractions. Notifications on our phones draw our attention away from the task at hand so completing it may ultimately require more effort. - Every time you get distracted by a notification you have to switch your attention and switch it back, the switching in and of itself actually requires cognitive effort and so you end up more depleted at the end of the day. - So what do we do as cellphone users to mitigate that? - Some things that I do is I do have scheduled do not disturb times which you can set on your phone when you know basically no notifications come in. In general, I do keep my phone on silent. I actually am like most people a little addicted to my email and a little addicted to social media and messages, so I do actually open those apps frequently enough that I don't need to be reminded I need to open it every, every minute. - [Daniela] So to take new technologies we may first need to reconsider how and when we rely on them. - We did a study not in an organization but on campus where we asked students to find a building either with their phones or without the help of their phones. And yes the students who relied on their phones got to the building faster but these same students actually felt less connected to their community and so it's not a question of you know should we just do away with these devices but what is the price of this convenient device. These social bonds that hold society together I think are getting more and more chipped away from us. - [Daniela] Our devices and apps aren't the only way to crush it at the office. Casual conversations at work make us feel more connected, happier, and productive that's what science is telling us.