The Heavy Toll of ‘Always On’ Technology

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Frieda Klotz
[PRODUCTIVITY]

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LARRY D. ROSEN, INTERVIEWED BY FRIEDA KLOTZ

How quickly should employees respond to emails? In most workplaces the answer is “right away.” But scientific research is starting to suggest that managers need to recognize the effect that being “always on” has on employee stress and overall efficiency.

More than a decade after the smartphone’s introduction, researchers have been tracking and analyzing its impact — and that of its addictive
technological relatives, email and social media — on our brains. In their book *The Distracted Mind: Ancient Brains in a High-Tech World* (The MIT Press, 2016), neuroscientist Adam Gazzaley and psychologist Larry D. Rosen reveal what happens in our brains when we get interrupted or self-distract and how that affects us behaviorally and psychologically. The book explains how internet-connected devices and expectations for immediate responses to communications degrade our attention, with implications not just for productivity but also for mental health and stress levels in the workplace.

Rosen, a professor emeritus and past chair of the psychology department at California State University, Dominguez Hills, communicated by email with *MIT Sloan Management Review* about what managers can do to minimize unnecessary interruptions for their staff. The interview was conducted by freelance journalist Frieda Klotz, and what follows is an edited and condensed version of their conversation.

**MIT SLOAN MANAGEMENT REVIEW:** Your book *The Distracted Mind* describes a workplace in which employees are expected to respond instantly to messages, even at the cost of interrupting work on important tasks or projects. What mistakes do managers make in their assumptions of how their employees should use technology at work?

**ROSEN:** Managers want as much productivity as possible, of course, but they should be aware that when employees are interrupted by a communication such as email, IM, or text, it not only distracts their attention, but it can keep them away from the task they were engaged in for a substantial period of time. One study estimates that the *resumption lag* in getting back to the original task is nearly half an hour, on average. In addition, when people return to the task, they have to reactivate the brain networks that were being used to address it. That takes additional time and effort.

Ultimately, employees can do just as good a job as they would if they haven’t been interrupted, because they work more quickly than ever after the interruption. But this comes at a cost: time delays, the need to use extra work hours to complete the interrupted tasks, and additional stress. Workers are being interrupted far too often and suffering far too much unnecessary frustration and anxiety as a result.

Researchers are just now starting to compile data on the impact of technology use on the brain, on sleep, on productivity, and on learning, and have found strong negative effects in many cases. The research clearly indicates that the impact from so many interruptions on our mental and emotional functioning is vast and needs to be addressed.

**MIT SLOAN MANAGEMENT REVIEW:** You write that the majority of tech-induced interruptions that take place at work are self-generated, where employees are checking in, checking email, and checking up on one another — without external direction. How can business leaders help?

**ROSEN:** A general plan needs to be in place across the organization to help workers avoid this constant checking-in behavior. First, the business itself must implement policies on online communications. Some companies have a 7-to-7 rule, where communications sent before 7 a.m. or after 7 p.m. don’t need to be answered until the workday begins.

Second, we have, over time, built up expectations that communications deserve priority over everything else and that we should address them immediately. But we must start changing these expectations. One way is to set a workplace norm that digital communications should be dealt with in, say, 30 minutes, or whatever works. If a communication is vital, then it should be moved to a phone call or even a face-to-face discussion so that it gets addressed immediately.

Third, we have developed an almost Pavlovian response to incoming communications, which we have to quell. In the book, we discuss a technique called a “tech break.” This means that you close down any websites on devices that are not relevant to work, including email and texting, and you set a timer on the phone for 15 minutes. You place the phone directly in your line of sight — but upside down to remove the flashing alerts from your line of sight — as a reminder that you’re still on tech break. When the alarm rings, you can check anything for one minute.
“Taking control of your own interruptibility is critical to productivity, and managers should encourage their workers to do so.”

start again. This is a flexible plan, so it can be longer than one minute, but it needs to be timed. You go 15 minutes without checking in and then increase it to 20 and then 30 minutes.

You say the mental cost of interruptions is increased stress and frustration. What else can managers do to alleviate tech-induced exhaustion and burnout in their employees? 

ROSEN: Implementing the tech-break strategy that I outlined above, along with technology-free hours and even technology-free zones in the office, will go a long way toward alleviating stress and stress-related issues. This will take time, and, in particular, it will require total approval and support from management, because it will mean that a manager’s communication might not be answered immediately. Managers will have to assess whether receiving an immediate response to a message is worth the concomitant stress and strain placed on their employees of having to complete tasks while being constantly interrupted. Any workplace change demands that managers change their expectations.

The open-plan office has been around for a long time, but you point out that it astronomically increases the likelihood of external disruptions. Have modern office layouts, which have been adopted by leading companies such as Google, Facebook, and Goldman Sachs with the goal of improving collaboration, been a mistake? 

ROSEN: As the research cited in the book shows, open offices create situations in which workers are ripe for distraction, and distraction negatively impacts performance. There are ways to make an open office work, but it takes leadership and support from upper management. In some open offices, employees wear noise-canceling headphones. In others, they put up a red sign or even a red light that says, “I am not to be interrupted.” When they are available again, they change it to green. Collaboration is still entirely possible, but only during the periods when the employee has time. Taking control of your own interruptibility is critical to productivity, and managers should encourage their workers to do so.

The book notes that millennials want to be connected and think they can multitask effectively, even when scientific studies show that’s not the case. Meanwhile, you found that older people were more distractible than younger adults and have more issues with task switching and multitasking. Is there an argument for treating the generations differently at the workplace? 

ROSEN: Regardless of a person’s age, nobody multitasks all that well, and making rules for different people due to age doesn’t make any sense. On certain simpler tasks, younger people do quite well multitasking, but they suffer similar problems when the tasks get more complex. Research has found that only 2% of all adults are “supertaskers” and can multitask with few costs. Everyone suffers costs from multitasking or being interrupted constantly, and this cuts across age groups.

How has your research changed your own habits and your expectations of the people you manage?

ROSEN: One way my research has influenced me personally is that when we found a major impact of late-night technology use on sleep problems, I stopped using my phone and tablet one hour prior to bedtime. Instead, I “single task” by watching TV — usually a familiar, low-brain-activating show — reading a paper book or a device-displayed book with the brightness turned down and the blue light dimmed, or listening to familiar music. In terms of the people I manage — my students — I believe in encouraging them to develop their own classroom digital metacognition. I allow them to use devices in the classroom but first alert them to the studies indicating that their learning will be dramatically reduced and they will then have to spend time outside of class catching up on what they missed while self-interrupting in class.

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