

# INTERRUPTIONS

**Taming One of the Worst  
Office Productivity Killers**



BY SHAYNE KAVANAGH AND JAKE KOWALSKI

In today's workplace, technology has essentially reduced the cost of communication to zero. And while there are many benefits to more open communication, there is also a cost: We experience more interruptions during the workday.

One inquiry into workplace interruptions found the following:<sup>1</sup>

- ➔ The average worker experiences **seven interruptions** per hour.
- ➔ They spend about **five minutes** dealing with the typical interruption.
- ➔ About **80 percent** of these interruptions were described as adding little or no value.

This means that many people are spending up to three hours a day dealing with not very useful interruptions. GFOA members seem to agree—more than a quarter of respondents to a GFOA poll rated interruptions as the most annoying source of lost time at work, putting them at No. 2 on the list. (Meetings were No. 1.)

Saying that people spend up to three hours a day on interruptions understates the problem, though. Because interruptions occur at unpredictable times, we are constantly forced to break concentration to deal with them. Because it can take up to 25 minutes to reach full concentration and



get into the flow of a task,<sup>2</sup> some people may be spending their entire workday in a chronically distracted state, never reaching full concentration. Academic studies show the insidious implications of chronic distraction, finding that students who are regularly distracted have significantly lower GPAs and exam scores than more focused students.<sup>3</sup>

We can assume that chronic distraction will not produce better results in the office than it does in the classroom. This is a problem for public finance officers because much public finance work, such as preparing budgets, forecasts, and month- and year-end closings, requires concentration.

One might think that the solution to this problem is to get better at multitasking. However, people are *not actually capable of true multitasking*—that is, working on several things at the same time. Instead, when we think we're multitasking, we're in fact rapidly switching our attention among different tasks. As we saw earlier, it takes time to ramp up to full concentration, so shifting attention rapidly is little or no better than chronic distraction. In fact, research shows that multitasking could reduce productivity by up to 40 percent!<sup>4</sup> In a particularly cruel twist, people who think they are good multitaskers and who multitask often are worse at it than people who spend more time in a focused state.<sup>5</sup> People who focus have trained their brains to operate at their most efficient level. Multitaskers are training themselves to be constantly distracted, with its consequent effects on cognitive ability.

The solution, then, is to limit interruptions to provide more time for focused work. This will not be easy, but fortunately, research has provided us with insights on how to limit interruptions. Before we get into strategies, though, we need to recognize two distinct types of interruptions because the strategies dealing with each are distinct.



The first is interruption by people, such as when a coworker calls us or comes to our workspace for a spontaneous conversation. This is probably the most obvious source of interruption for many of us. The second is interruption by technology. This is when we are distracted by notifications from our computer or smartphone, or even when we spontaneously interrupt our own workflow to check messages or visit a favorite social media application. Now, let's see how to deal with these two types of interruptions.



## Interruptions by people

The healthcare field offers illuminating insight about the impact of interruptions. In a hospital, nurses are responsible for administering medications to patients, and

they are regularly interrupted during this task by doctors or other nurses who want their attention. To illustrate, one study showed that almost all the 56 medication events the researchers observed were interrupted, and there were almost two interruptions per event.<sup>6</sup> These interruptions induce errors. The same study showed that a little more than one-third of the interrupted medication events had at least one procedural failure. This can be quite serious, as the patient could get the wrong dosage or even the wrong medication. Because these interruptions are literally a matter of life or death, the medical field has put a lot of thought into interventions to eliminate or mitigate interruptions, which we describe below.<sup>7</sup> The results have been impressive—one study showed that a single intervention reduced error rates by 20 percent to almost 50 percent.<sup>8</sup> If these interventions work in a hectic hospital setting, it stands to reason that they could work in a public finance office as well.

**STAFF EDUCATION.** Many people simply may not be aware of the serious consequences interruptions and distractions have for productivity. For example, recall that multitasking is a myth, yet many people still try to do it, and some even believe they are good at it. Consider sharing this article with your colleagues and having a conversation about what you all can do together to reduce interruptions. Furthermore, if your colleagues are aware of the consequences of interruptions, they are more likely to see your attempts to avoid interruptions as a well-meaning attempt to be productive and not as anti-social.

## PHYSICAL SPACES THAT ARE NO-INTERRUPTION

**ZONES.** Designate a certain part of the office as a no-interruption zone and allow staff to relocate there whenever they need to concentrate on a critical task. Ideally, the no-interruption zone should be a private office, as people in cubicles tend to get almost one-third more interruptions.<sup>9</sup>

If your office does not have the space for a no-interruption zone, consider if an offsite location can be substituted. For example, perhaps a space at the local library can be used when

intense focus is needed, or a work-from-home option could be provided. Another option could be to create temporary no-interruption zones within your existing space. Staff could block out times on shared calendars for important tasks, just as they would block out time for a meeting. During this time, their workspace becomes a no-interruption zone.

There are a few pointers for making no-interruption zones work at their best. First, beware the boy-who-cried-wolf problem: If someone regularly designates a large portion of their calendar as a no-interruption zone, it may lose credibility—so consider limiting it to when it is most needed. Second, when you do use a no-interruption zone, be specific about your reasons. For example, if your calendar message describes the task you are working on, then your colleagues will understand why you can't be interrupted and will be more likely to respect the zone. Finally, combine the no-interruption zone with the visual indicators intervention, described below.

**DO-NOT-DISTURB VISUAL INDICATORS.** Establish visual signals for staff members to use when they are not to be interrupted—and get everyone's commitment to respect them. These signals could be virtual, like a do-not-disturb status on a phone system. Signals could also be physical. For example, Gwen Pilo, the finance director for the City of SeaTac, Washington, turned her own office into a no-interruption zone simply by closing the door and putting up a simple sign (combined with blocking time on her calendar). For people who work in a cubicle, wearing noise canceling headphones could also be a do-not-disturb signal.

**SYSTEMATIC SOLUTIONS.** Identify common sources of interruptions and then design solutions around that problem. For example, a larger finance office had one staff person whom we'll call Mary. Mary was regularly interrupted by questions from other departments because she gave the most helpful answers of all the finance staff. A systematic solution might be to play to Mary's natural strengths, changing her role to make helping other departments a primary job responsibility instead of a distraction. After all, mistakes that other departments make will often have to be fixed by the finance department later. Further, if departments first call other finance staff and get unsatisfactory responses before turning to Mary, then the finance department is enduring no-value interruptions in addition to what Mary experiences. In exchange, tasks that Mary was doing that were most at-risk for critical errors due to interruption could be shifted to other staff members who were not as skilled at dealing with questions from departments.

We can also implement our own systematic solutions. For example, many people tend to have the most energy at the start

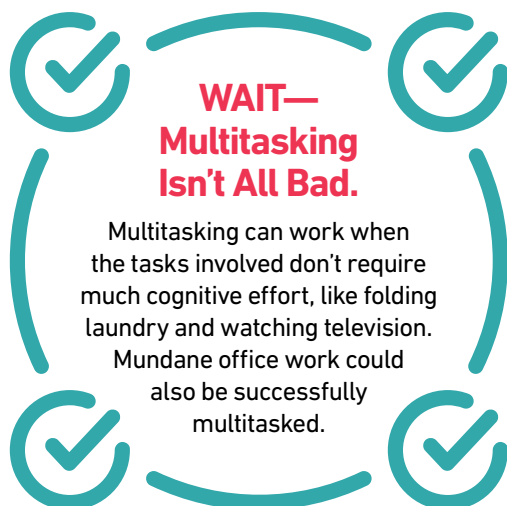


of the workday, losing energy and the ability to focus near the end. A systematic solution would be to reserve mornings for important work that requires focus and open up the afternoon for meetings, urgent tasks that aren't important but are distracting, and other activities that have the potential to break your concentration.

Another simple systematic solution would be to practice a strategy of sticking with whatever task you are on until you complete it, or at least reach a satisfying milestone that provides a natural break point. Unfinished tasks can elicit the "Zeigarnik effect." If you've ever started a household project, stopped partway through, and then felt strongly compelled to complete it, you've experienced the Zeigarnik effect. Once we start something, we feel more compelled to finish it, compared to when we hadn't started it at all. Thus, an unfinished task can cause us to essentially interrupt ourselves as our mind continues to go back to it.

Finally, flextime could be used to avoid interruptions. The hours between 9 a.m. and 5 p.m. will always be the most prone to interruption. Flextime could allow employees to move some of their work time outside of traditional business hours. Trish Davidson, finance director for Rockingham County, Virginia, observed that when she sometimes comes to the office at 6 a.m., the couple of hours she spends working before regular business hours are more productive than the entire rest of her day!

**CHECKLISTS.** Because it's impossible to eliminate all interruptions, an anti-interruption strategy should also consider ways to mitigate the negative impacts of an interruption when it does occur. A good checklist can help.



## QUESTIONS AND CONVERSATION STARTERS

- ➔ Are your colleagues aware of the potential for lost productivity caused by interruptions and chronic distractions? How can you get them on board with combating distraction?  
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- ➔ Can you designate a no-interruption zone that staff can use for tasks that demand focus?  
.....
- ➔ Can your office agree on signals that staff can display to indicate they should not be disturbed?  
.....
- ➔ What are your important sources of interruption? How can you mitigate them?  
.....
- ➔ Do you have checklists and a good organizational system to help you pick critical tasks back up after being interrupted?



This is not an exhaustive listing of everything that must be done to complete a task. A good checklist fits on one page and skips the obvious or unimportant steps. It focuses on the critical steps in a process that are most likely to be overlooked and that are not adequately checked by other mechanisms.<sup>10</sup> These are the biggest points of potential failure, so a checklist helps users reorient themselves to the task if an interruption throws them off.

**PREPARATION.** Another way to mitigate the effects of interruption is to optimally organize your workspace, which makes it easier to pick the task back up after an interruption. "5S" is a popular tool from Lean process improvement<sup>11</sup> that addresses how to organize a workplace. Each of the five Ss represents a step in the organizing process: sort the necessary from unnecessary; set in order, so the most important work tools are easy to find and accessible; shine, or keep the workspace clean and free of distracting clutter; standardize the approach so it can be replicated; and sustain it over time. Governments that practice Lean have used 5S widely. There are many Internet resources on how to use 5S, and you don't have to be a full-fledged Lean organization to benefit from it. Also, 5S is useful beyond just mitigating the impact of interruptions. For example, the municipal finance department at the City of Chula Vista, California, did an office-wide 5S project and was able to improve productivity so much that they were able to eliminate two vacant half-time administrative positions.



## Interruptions by technology

Interruptions from technology are different than those from people. They are generated automatically by software or by people who aren't usually expecting an immediate response (as with text messages or email). This is fundamentally different from a phone call and, especially, an in-person interruption, where the other person is expecting you to respond right away.

One might think this would mean that interruptions from technology would be easily tamed. Of course, this is not the case. In fact, email is one of the top sources of distraction in the workplace. The reason interruptions from technology are challenging is that excessively checking text messages, emails, and more has developed into a *habit* for many of us. Much of what we do is driven by habit. For example, researchers found that a little more than half of tasks performed at work were habitual.<sup>12</sup> Habits proceed without much conscious thought, and we have them because they relieve us of the need to spend energy thinking about routine tasks.

Sometimes, though, we make habits of undesirable behaviors. Recognizing excessive or unproductive use of technology as a bad habit is important for two reasons. First, it reveals that we are unlikely to be successful at curtailing this problem just through force of will. Attempting to override a habit simply by resolving to do things differently is very difficult. Conscious, intentional thought requires substantial effort. Habits require little effort. Therefore, good intentions are at a considerable

disadvantage against habit, as the struggles of people who vow to quit smoking demonstrate.

The second reason why recognizing device-checking is a habit is important is that it allows us to take advantage of research on how to change habits. In *Good Habits, Bad Habits: The Science of Making Positive Changes that Stick*, Wendy Wood of the University of Southern California identifies four levers for habit change:<sup>13</sup>

- **Friction.** Make it easier to do the right thing and harder to do the wrong thing. This may be the single most important lever for habit change.
- **Context.** Our environment provides cues that prompt us to engage in our habits. Change the environment to increase constructive cues and decrease unhelpful cues.
- **Rewards.** Provide an incentive for engaging in desirable behaviors. The reward needs to be received as soon as possible after engaging in the desired activity.
- **Repetition.** Keep doing the right thing until the behavior becomes automatic.

In many cases, the creators of our devices and applications have designed them to become habitual. The interfaces are easy to use or “frictionless.” They cue us with audio tones or visual displays to open the application. We are rewarded by the novelty associated with seeing the latest post on social media, what is happening in the news, and so on. So, we repeatedly access the technology, and it becomes a habit.

Mitigating technology interruptions therefore requires counteracting the habit-forming features of our devices and



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applications. The easiest place to start is with context and cues. Dr. Wood points out that the most effective way to eliminate cues that would prompt you to put down the task at hand and pick up your smartphone (or other device) is to leave your phone behind. For example, if you are meeting with a colleague, leave your phone in your office. You will be more focused in the meeting and your colleague will likely appreciate your undivided attention. Of course, it will not always be possible to escape your devices and applications, but most of them have options that allow you to customize notifications. Look for any cues your devices are giving you to engage in low- or no-value activity and turn them off. Examples include:

- **Audio or visual notifications of new email messages.**  
Today, hardly anyone uses email for truly urgent communications, so it isn't necessary to drop what you are doing to check messages.
- **News notifications on your smartphone.** Many applications push news alerts to our phones. This news is virtually never so important that learning about it can't wait.
- **Set up temporary blocks for low-priority contacts.**  
Many smartphones have customizable do-not-disturb settings, where the phone only notifies you of calls and messages from certain people. For example, you could create a setting that only notifies you of calls/messages from key elected officials.<sup>14</sup>

Friction may be the most important lever. The objective is to make it just hard enough to access the distraction that accessing it would require conscious effort—taking you out of the realm of habit. There are many ways to do this. For example, you could put your phone charger on the other side of the room and plug the phone in when you get to work. The phone is thus out of easy reach, but not so far away that it can't be accessed if needed. When traveling, you can keep the phone in a zippered backpack instead of in your pocket, making it slightly more difficult to get to. There are innumerable other ways you can add helpful friction to your technology:

- Michele Cassaro, deputy director of finance and administration for the Greater Rockford Airport Authority, Illinois, deleted distracting apps entirely from her mobile device. This way she can't be cued to use them when using her device for productive purposes. Also, removing these apps would force the user to access them via a personal computer, which might be enough additional friction to stop a habit.
- Remove the ability to access distracting applications quickly, such as taking them off shortcut menus. This might be especially useful for PCs, and especially for email. For instance, Gwen Pilo from the City of SeaTac removed the email shortcut from her desktop and now only opens and checks email at the start of the day, once midday, and at the end of the day.



## QUESTIONS AND CONVERSATION STARTERS

- ➔ Are you bringing your devices with you to places where they do more harm by creating interruptions than they add in productivity? Can you stop bringing your device?  
.....
- ➔ What cues to engage in low- or no-value activity are your devices giving you? Can you eliminate those cues?  
.....
- ➔ What devices or applications are your biggest sources of distraction? How can you make using that device or app more difficult?  
.....
- ➔ What cues prompt you to pick up your device (like wanting to know the time)? Can you find a lower friction, less distracting way to accomplish the desired result (like wearing a wristwatch)?  
.....
- ➔ Is there are more positive habit (as in calling people personally) that you can associate with your device use that also adds to the friction of using the device?  
.....
- ➔ What immediate reward can you set up for engaging in more constructive behaviors?

- Sarah Rathlisberger, finance manager for the City of Monticello, Minnesota, has taken to storing her cellphone in a desk drawer. She can hear the phone ring (which is more likely to indicate something urgent) but can't as easily hear or see the numerous other, less important notifications her phone produces. Also, because she can't see the phone, the mere sight of it can't cue her to pick it up and use distracting apps.
- Develop complex passwords for social media sites and don't set up the password to be automatically filled in for you. Besides reducing the chances your profile will be hacked, you will have to look up the password every time you want to use social media, likely cutting down on how often you log in.
- Simply turn devices off when you aren't using them. Besides saving battery life, having to turn your device back on just to get a quick look at it will often be enough friction to stop a habit.



Dr. Wood shows that you can also use friction more creatively. For example, perhaps you pick up your phone to check the time and then end up (wasting time) on a social media app. Get a wristwatch that you like. Now, you've reduced the friction associated with checking the time (just lift your wrist) and you've removed the cue for getting into social media. You might also build a new habit of making personal phone calls. Dr. Wood suggests making a phone call every time you access your phone. Family members or friends will often appreciate a quick call just to say "hello," and many work matters are often better resolved over the phone than email. Besides strengthening your personal relationships, making these calls adds a new source of friction to using your phone. Phone calls are more difficult than texts or email, so if you make it a habit to make a call every time you pick up your phone, then you are less likely to pick up your phone in the first place!

Finally, we come to rewards and repetition. Repetition is self-explanatory, while reward is a bit more complicated. Rewards

don't work unless they're immediate. Wood suggests that because we use devices as a distraction and distractions are occasionally necessary, then a more constructive distraction could be a viable reward. For instance, keeping a good book or magazine nearby to reach for instead of your device would likely do more for your wellbeing than the latest news alert or social media post. Furthermore, a physical book or magazine can't bombard you with personalized advertisements that are optimized to grab at your attention or present links to lead you down rabbit holes you are better off staying out of. And, of course, if we enjoy the book or the magazine, then it is a good reward for staying off our devices. Rewards could also be intrinsic. For example, there are many proven health risks associated with multitasking, including decreased cognitive ability, reduced memory, greater stress, and increased anxiety and susceptibility to depression.<sup>15</sup> Knowing that you are improving your health and wellbeing by avoiding chronic distraction could be its own reward.



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## Conclusion

Interruptions are a serious threat to productivity. Recognizing the two types of interruptions, those from people and those from technology, allows us to develop strategies for dealing with each. Share this article with your colleagues and develop your plan for your office to reduce the consequences of interruptions. Here is a simple meeting format you could use:

- For the first ten minutes or so, people silently read the article. This way everyone starts with the same information. Often, you can't count on people reading ahead of time, so you can schedule the reading time as part of the meeting.
- Next, participants spend a few minutes, on their own, making notes about their top ideas for reducing the impact of interruptions in the office. These could be ideas from the article that they liked or ideas they come up with on their own. Research shows that a bit of quiet reflection time greatly improves the number and quality of ideas you get from a meeting.
- If you have a lot of participants in this meeting, you could break into groups of four and have people discuss what is on their lists and look for commonalities, which would be the most obvious ideas to commit to. The group could also

agree to things that weren't on everyone's list. This group discussion should not take more than 10 minutes; then the groups can compare notes. Ideas that were on all the groups' lists would be top candidates, but it would be fine for the meeting participants to agree to ideas that not every group came up with. If you have a smaller number of total participants, you can follow essentially the same process but without multiple groups.

- Wrap up the meeting by writing on a flip chart the new behaviors you and your colleagues will commit to in the future. If the group discussion generates too many ideas, they might be too overwhelming to implement. If this happens, write all the ideas on the flip chart and use "dotmocracy" or some other method of prioritizing. For dotmocracy, every person gets a small number of sticky dots—the number of ideas on the flip chart divided by three is usually a good rule of thumb for the number of dots. Everyone then puts their dots by their favorite ideas, and the ideas with more dots win. ■

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<sup>1</sup> Rudi Dalman, "The Real Cost of Interruptions at Work," Peoplehr.com, May 12, 2016. This article refers to research conducted by Dovico.com.

<sup>2</sup> Petra Neiger, "6 Jaw Dropping Facts About What Workplace Interruptions and What you Can Do," Trainingmag.com, November 20, 2017. Also see: Rachel Emma Silverman, "Workplace Distractions: Here's Why You Won't Finish this Article," The Wall Street Journal, December 11, 2012; and Gloria Mark, Victor M. Gonzalez, Justin Harris, "No Task Left Behind? Examining the Nature of Fragmented Work," CHI 2005 conference paper.

<sup>3</sup> Kaitlyn E. May, Anastasia D. Elder, "Efficient, helpful, or distracting? A literature review of media multitasking in relation to academic performance," *International Journal of Educational Technology in Higher Education*, December 2018.

<sup>4</sup> Kendra Cherry, "How Multitasking Affects Productivity and Brain Health," Verywellmind.com, March 16, 2019. Also see: "Multitasking: Switching Costs". American Psychological Association, March 20, 2006. This measure assumes the multitaskers is working on reasonably complex tasks that rely on essentially the same brain functions, like what would be found in typical office work.

<sup>5</sup> Travis Bradberry, "Multitasking Damages Your Brain and Your Career, New Studies Suggest," Talentsmart.com

<sup>6</sup> Maree Johnson, et al, "The impact of interruptions on medication errors in hospitals: an observational study of nurses," *Journal of Nursing Management*, May 22, 2017.

<sup>7</sup> "Side Tracks on the Safety Express. Interruptions Lead to Errors and Unfinished... Wait, What Was I Doing?" Institute for Safe Medication Practices, November 29, 2012.

<sup>8</sup> Debra Wood, "Decreasing Disruptions Reduces Medication Errors," Rn.com, 2009.

<sup>9</sup> Sue Shellenbarger, "The Biggest Office Interruptions Are....not what most people think. And even a 2-second disruption can lead to a doubling of errors," The Wall Street Journal, September 10, 2013.

<sup>10</sup> Atul Gawande, *The Checklist Manifesto: How to Get Things Done Right* (Picador, 2009).

<sup>11</sup> Lean process improvement is a method of managing and organizing work that seeks to eliminate sources of waste in work. Many local governments have used Lean to great effect, including some finance offices. For example, see: Shayne C. Kavanagh and Harry Kenworthy, "Building a Culture of Engagement with Lean Continuous Improvement," *Government Finance Review*, June 2016.

<sup>12</sup> Wendy Wood, Jeffrey M. Quinn, and Deborah A. Kashy, "Habits in Everyday Life: Thought, Emotion, and Action," *Journal of Personality and Social Psychology* 83, no. 6 (2002).

<sup>13</sup> Wendy Wood, *Good Habits, Bad Habits: The Science of Making Positive Changes that Stick* (Farrar, Straus, and Giroux, 2019).

<sup>14</sup> For example, on an iPhone, use Do Not Disturb but "star" contacts whose calls you want to let through. Go to Settings, Do Not Disturb, select Allow Calls From and select Favorites. On an Android, use Do Not Disturb, More Settings, Priority Only Allows, and then select Calls.

<sup>15</sup> Guy Winch, "10 Real Risks of Multitasking, to Mind and Body," *Psychology Today*, June 22, 2016.