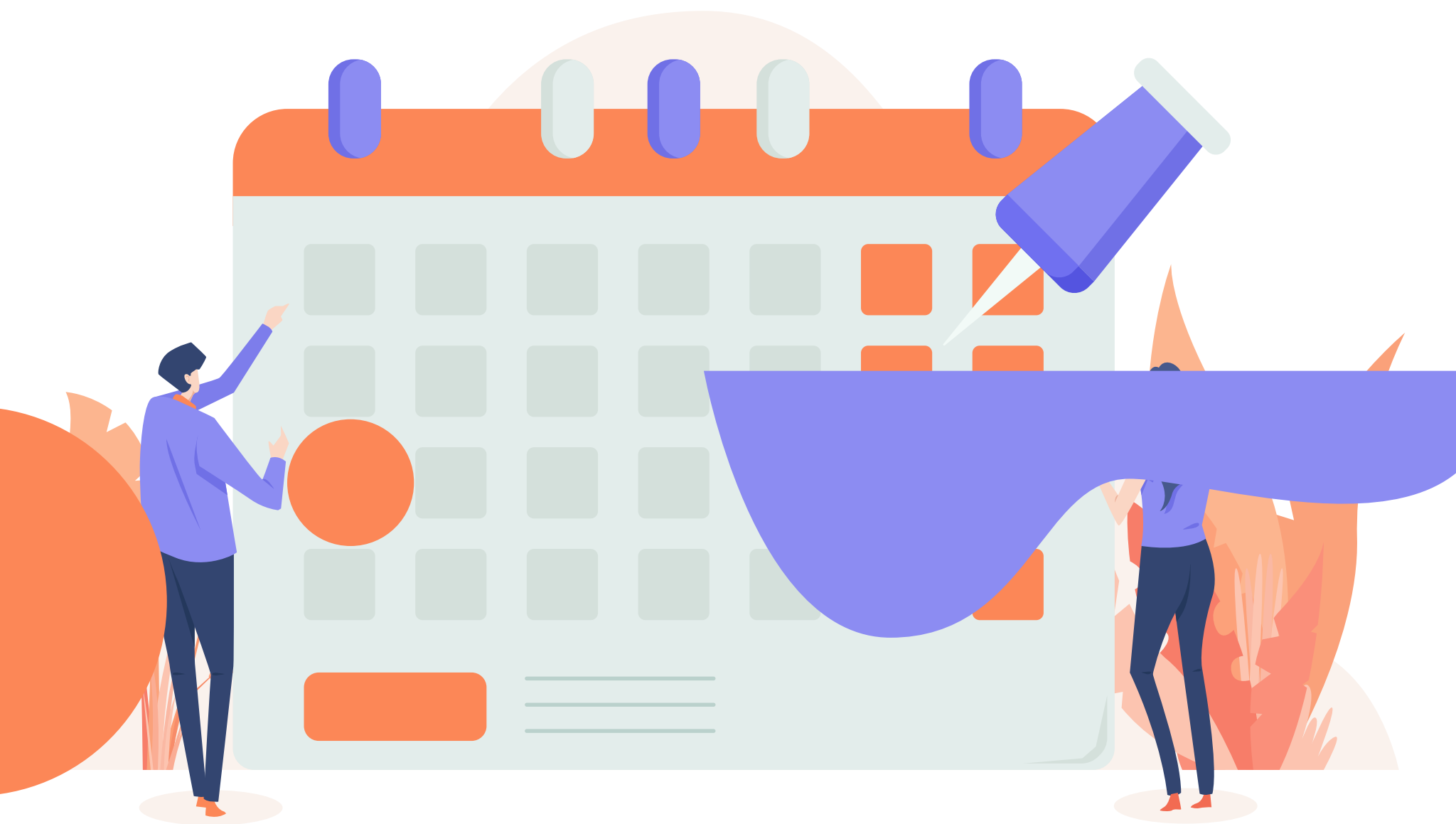


PRODUCTIVITY

# *THE HIDDEN COSTS OF REMINDERS*



# *EDITOR'S NOTE: THIS ARTICLE ORIGINALLY APPEARED IN THE BEHAVIORAL SCIENTIST.*

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This morning, my alarm sounded at 7:30. Shortly after, my Headspace app sent a notification reminding me to meditate for 10 minutes. When I sit down at work, my calendar pops up to remind me of a grant meeting. Before lunch, I shoot my colleague an email to remind her that we planned to meet.

In the afternoon, I am greeted at my desk by several more email reminders about the seminar this afternoon, the planned IT works this weekend, and the meeting I need to set with my teaching assistants for next week. I add a couple of items to my paper to-do list, so I won't forget them. Then my phone beeps to let me know that I haven't completed my daily Danish lesson and that I signed up for a gym class tonight.

All told, in a typical day, 20–30 digital reminders vie for my attention.

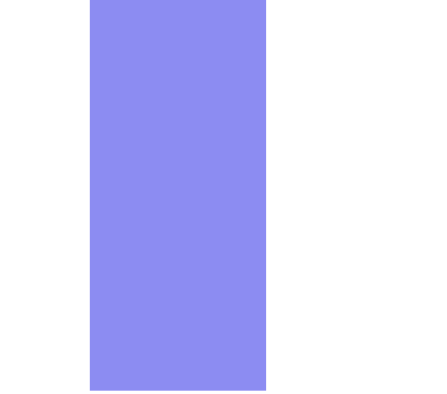
We are surrounded by reminders—some we schedule ourselves, and many we receive from others. Reminders range from the trivial (apps that coax us to drink water or sit up straight) to the consequential (annual notices to file your taxes or update your health care and retirement plans for the year).

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enerally, setting up reminders makes sense. By delegating a task to a list or a device, we can reduce our cognitive load and free up brain capacity for other things.

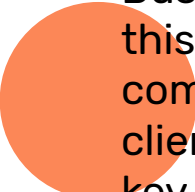
There is also plenty of evidence showing that we will not act if we are not reminded to do so. Studies show that reminders can increase savings, adherence to medical treatments, charitable donations, and just about anything that isn't permanently at the top of our mind.

**But reminders have a dark side. Every time we receive a reminder email or phone notification, we are diverted from the activity we are doing at that moment. A recent study by Adrian F. Ward and coauthors showed that the mere presence of your smartphone can reduce your cognitive capacities.**



These micro-distractions can add up and prevent us from getting any sensible work done or distract us from social experiences. Cal Newport recently wrote about a professor, Donald Knuth, who, based on this reasoning, decided to not have an email address at all. I assume he doesn't have a smartphone either.

When deciding whether we want to schedule or receive reminders, we have to weigh the benefits of reducing our cognitive loads and being certain we'll remember against the costs of feeling distracted, annoyed, and guilty. For instance, well-meaning messages from my gym telling me that they "miss" me during a stressful period at work make me feel bad about myself without getting me to act.



Businesses and nonprofits face this challenge as well, when they communicate with customers, clients, and donors. For them, the key is staying top of mind without pushing people away. The shift to digital communication makes it easier and less expensive for organizations to reach their target audiences. This presents an opportunity, but also a risk of too much cheap communication.

Recently, my colleague Mette Trier Damgaard and I set out to look at the role reminders play in charitable giving. Digital communication has transformed how charities and donors interact. The 2018 Global

Trends in Giving report finds that 74% of donors have been inspired to give through digital communication, such as email and social media.

Spontaneous giving, however, without any external trigger, is close to zero. Unless it is the last day of the tax year, a major disaster, or Christmas, most people are unlikely to donate without being asked.

Mette and I worked with one of the largest Danish charities, DanChurchAid (DCA), to better understand how solicitation emails influence giving. DCA mostly implements and supports emergency and development programs and is well known in Denmark. In our study, "Now or Never! The effect of deadlines on charitable giving," we observed a spike in donation rates in response to regular email campaigns from the charity on the day of an email, and then a drop to zero almost immediately, regardless of the campaign length.

Clearly, attention from an email campaign is temporary. After reviewing these results, the charity was interested in whether it was possible to generate persistent attention from donors. Taken to the extreme, one might suggest a constant stream of reminders. But intuitively, we know that would fail. So what are the downsides of sending too many reminders? And where's the balance between too many and just enough?



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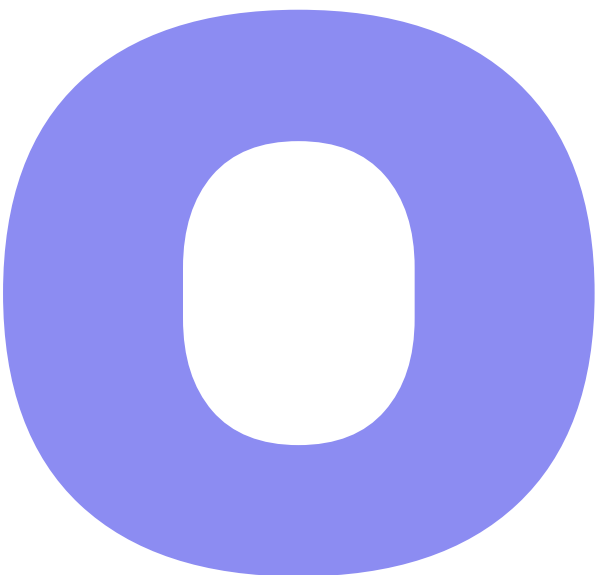
To investigate the extent of a possible backlash from frequent communication, we designed a second experiment with DCA to investigate the “hidden costs of reminders.” We were interested in understanding the effect of email solicitations on donations and potential reactance to these reminders. We used the charity’s monthly newsletter to send solicitations for donations to 17,000 people. These were all people who had signed up to the mailing list while making an online donation in the year prior to our experiment. The style of the email was similar to what the charity would usually send, to ensure that the study findings would be representative of donor behavior. A random half of the group received only the initial request, the other half received a reminder a week later.

Comparing the two groups, we found that the reminder email helped increase one-time donations by 66%. However, we also found that the additional reminder increased the rates of unsubscribing from the mailing list by 76%. While for some people the reminder came at a good time and helped them remember to donate, others felt annoyed and maybe even guilty for not giving. For the charity, this dual mechanism meant that they were losing valuable donors who, based on their previous giving behavior, were likely to be willing to donate at another time. We estimated that when factoring in future donations, over the course of a donor’s lifetime, the reminder reduced the total gains made by the solicitation by one third.

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Perhaps the question shouldn’t be how many reminders the charity should send, but rather, what are the underlying mechanisms that lead people to unsubscribe? If we understand the behavioral model, we can design interventions that work. So we collaborated with the same charity for a third experiment. By this time, their email list had more than doubled, so we were able to contact 40,000 individuals, again letting DCA design the email, this time asking for donations for a food waste store. We then randomized the receivers into three groups and varied only the message people received in the P.S. portion of the email.

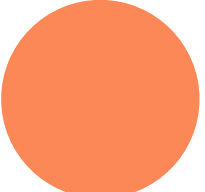




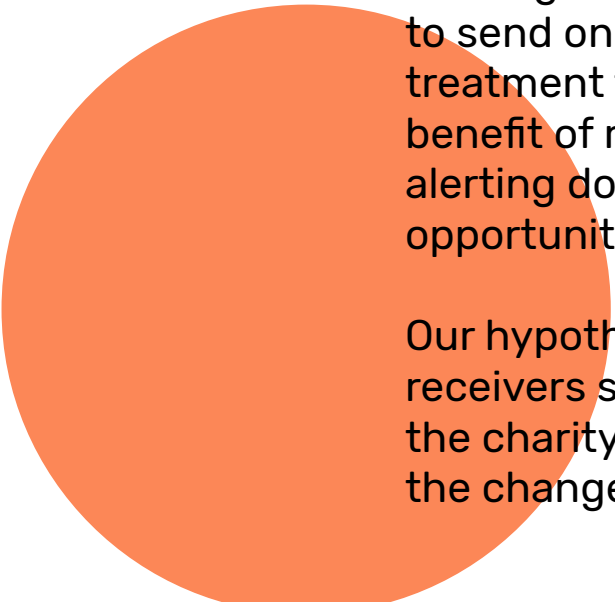
Our control group was informed that the charity contacted them on average once per month.

It said: "Did you know that we normally contact you once per month? Thank you for your interest in our work."

Treatment group one was informed that the frequency of the solicitation emails would drop in the next three months with the following message: "Did you know that we normally contact you once per month? In the next three months, you will only receive one email from us. Thank you for your interest in our work." Finally, treatment group two was told that next month's email would present a special opportunity for subscribers only. "Did you know that we normally contact you once per month? One of our collaborators has pledged to donate a healthy meal for a child in need for every person on our mailing list who gives in response to the next mail. Thank you for your interest in our work."



Our goal with treatment one was to reduce the perceived annoyance costs associated with the reminders. Instead of bearing the annoyance costs of three further messages, the charity promised to send only one. The goal for treatment two was to increase the benefit of receiving a reminder, by alerting donors to the upcoming opportunity.



Our hypothesis was that if receivers simply did not care for the charity anymore, then neither the change in frequency nor the

special opportunity should affect their decision to unsubscribe. If, however, receivers felt annoyed with the frequency or didn't see enough value in being reminded every month, then these messages should reduce the number of unsubscriptions for both of these groups.

This is what we found. In both treatment groups, the unsubscription rates were lower than in the control group, while not affecting the rate of donations between these groups.

**Perhaps not surprisingly, the better a charity can communicate to a potential donor the value of staying on the mailing list, the more receivers are willing to stay with it for at least another month. The experiment also showed that a monthly newsletter, which the charity considered "very infrequent," seemed too frequent for a subset of donors. In our sample of donors, there were no individuals who gave every month. Most donors gave one or two times per year.**

Unfortunately, there is no perfect frequency at which to send a reminder. Each receiver has an individual tolerance level. For individuals who only give around the holidays or at the end of the tax year, a donation request in June might do more harm than good.



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**SO INSTEAD OF SEGMENTING BY DEMOGRAPHICS SUCH AS INCOME LEVEL, GENDER, AND AGE, COMPANIES AND NONPROFITS SHOULD TRY TO LEARN ABOUT USER BEHAVIOR AND ADAPT REMINDERS TO THEIR PREVIOUS ACTIONS.**



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Luckily, now that companies have access to enormous amounts of data, algorithms can learn when a reminder is most likely to be perceived as helpful.

Duolingo, a language-learning app known for its rigorous A/B testing of user experience, does this by tracking the time a user practiced one day and then sending a reminder at the same time the next day. If you haven't practiced for five days, it "gives up" by telling you, "These reminders don't seem to be working. We'll stop sending them for now." They then send reminders at a far lower frequency, or even wait until you come back to the app yourself.

It seems to be working. In a randomized A/B test, the personalized reminder 23.5 hours after your previous lesson increased the daily active-user rate by 5%, according to their VP of growth, Gina Gotthilf. Scaled up to Duolingo's daily-user rate, the reminder design led to around 300,000 more daily users. That means more people taking action on their desire to learn a language, and fewer feeling guilty or annoyed.

As we better understand reminders in our personal lives, charitable giving, and in business, we have the opportunity to design reminders that do what they are supposed to do—get us to act when desired and, in the meantime, make our busy minds a little quieter.

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