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# ***Why We're All Addicted to Texts, Twitter and Google***

*Dopamine makes you addicted to seeking information in an endless loop.*

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Do you ever feel like you are addicted to email or twitter or texting? Do you find it impossible to ignore your email if you see that there are messages in your inbox? Do you think that if you could ignore your incoming email or messages you might actually be able to get something done at work?

You are right!

## **The Culprit Is Dopamine**

Dopamine was “discovered” in 1958 by Arvid Carlsson and Nils-Ake Hillarp at the National Heart Institute of Sweden. Dopamine is created in various parts of the brain and is critical in all sorts of brain functions, including thinking, moving, sleeping, mood, attention, motivation, seeking and reward.

## **Pleasure vs. Seeking**

You may have heard that dopamine controls the “pleasure” systems of the brain — that dopamine makes you feel pleasure and therefore motivates you to seek out certain behaviors, such as food, sex, and drugs.

Recent research is changing this view. Instead of dopamine causing you to experience pleasure, the latest research shows that dopamine causes seeking behavior. Dopamine causes you to want, desire, seek out, and search. It increases your general level of arousal and your goal-directed behavior.

From an evolutionary standpoint, this is critical. The dopamine seeking system keeps you motivated to move through your world, learn, and survive. It's not just about physical needs such as food, or sex, but also about abstract concepts.

Dopamine makes you curious about ideas and fuels your searching for information. Research shows that it is the opioid system (separate from dopamine) that makes us feel pleasure.

### **Wanting vs. Liking**

According to researcher Kent Berridge, these two systems, the “wanting” (dopamine) and the “liking” (opioid) are complementary.

The wanting system propels you to action and the liking system makes you feel satisfied and therefore pause your seeking. If your seeking isn't turned off at least for a little while, then you start to run in an endless loop.

The dopamine system is stronger than the opioid system. You tend to seek more than you are satisfied. Evolution again — seeking is more likely to keep you alive than sitting around in a satisfied stupor.

### **Dopamine Loops**

With the internet, Twitter, and texting, you now have almost instant gratification of your desire to seek. Want to talk to someone right away? Send a text and they respond in a few seconds. Want to look up some information? Just type your request into Google. Want to see what your colleagues are up to? Go to LinkedIn.

It's easy to get in a dopamine-induced loop. Dopamine starts you seeking, then you get rewarded for the seeking, which makes you seek more. It becomes harder and harder to stop looking at email, stop texting, or stop checking your cell phone to see if you have a message or a new text.

### **More, More, More**

Interestingly, brain scan research shows that the brain has more activity when people are anticipating a reward than getting one.

Research on rats shows that if you destroy dopamine neurons, rats can walk, chew, and swallow, but will starve to death even when food is right next to them. They have lost the anticipation and desire to go get the food.

Although wanting and liking are related, research also shows that the dopamine system doesn't have satiety built in. It is possible for the dopamine system to keep saying “more more more,” causing you to keep seeking even when you have found the information.

How many times have you searched for something on Google, found the answer, and yet realize a half-hour later that you are still online looking for more information?

## **Unpredictability is Key**

Dopamine is also stimulated by unpredictability. When something happens that is not exactly predictable, that stimulates the dopamine system. Our emails, tweets, and texts show up, but you don't know exactly when they will, or who they will be from. It's unpredictable.

This is exactly what stimulates the dopamine system. (For those of you reading this who are “old school” psychologists, you may remember “variable reinforcement schedules.” Dopamine is involved in variable reinforcement schedules, which is another reason these schedules are so powerful.)

## **Pavlovian Cues**

The dopamine system is especially sensitive to “cues” that a reward is coming. If there is a small, specific cue that signifies that something is going to happen, that sets off our dopamine system. So when there is a sound when a text message or email arrives, or a visual cue, that enhances the addictive effect.

## **140 Characters Is Even More Addictive**

The dopamine system is most powerfully stimulated when the information coming in is small so that it doesn't fully satisfy. A short text or tweet (can only be 140 characters!) is ideally suited to send your dopamine system raging.

## **Not Without Costs**

This constant stimulation of the dopamine system can be exhausting. And the constant switching of attention makes it hard to get anything accomplished. Can you do anything to get out of a dopamine loop? Or prevent getting in one in the first place?

## **Turn Off the Cues**

One of the most important things you can do to prevent or stop a dopamine loop and be more productive is to turn off the cues.

Adjust the settings on your cellphone and on your laptop, desktop, or tablet so that you don't receive the automatic notifications. Automatic notifications are touted as wonderful features of hardware, software, and apps. But they are actually causing you to be like a rat in a cage.

If you want to get work done, you need to turn off as many auditory and visual cues as possible. It's the best way to prevent and break the dopamine loops.