

Digital-age dilemma: How to cope with information overload

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Ten-thousand years ago, the brains of our hunter-gatherer ancestors had to focus on the basics of survival: getting food, fleeing predators and procreating.

Now, it can be hard to know what to focus on with Twitter, Facebook, email, smartphones and TV bombarding us with nonstop information. Headlines, rumors, status updates, videos and URL links can send us tumbling down an infinite number of rabbit holes of more information.

Little of it is likely to improve our lives in any significant way, says neuroscientist Daniel Levitin, a McGill University professor of psychology and behavioral neuroscience and part-time Orinda resident.



Author Daniel Levitin is a neuroscientist at McGill University in Quebec. (Photo by Owen Egan/McGill University)

This "information overload" is one of the many concerns he lays out in his new book, "The Organized Mind" (Dutton, \$27.95, 512 pages). We're bombarded daily with the informational equivalent of 175 newspapers and have a half-million books' worth of words stored on our computers, he says, but the 21st-century brain can't take all that in.

Our brains -- much like those of our prehistoric ancestors -- want to pay attention to only one thing at a time, and trying to absorb so much information comes at a cost: The neurons are living cells that become fatigued if we work them too hard.

"Every status update you read on Facebook, every tweet or text message you get from a friend," he says, "is competing for resources in your brain with important things like whether to put your savings in stocks or bonds, where you left your passport, or how to best reconcile with a close friend you just had an argument with."

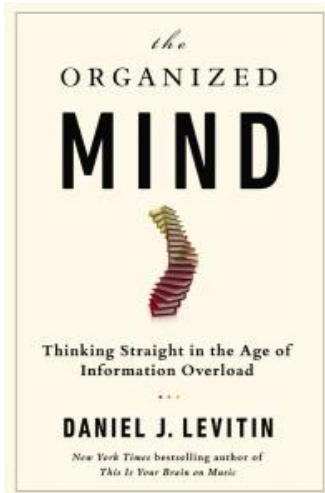
Whenever we feel overwhelmed by everything we need to keep track of in life, we talk about wanting to get organized, the Bay Area native says. Actually, imposing structure on the world is hard-wired into our brains, he says. It helps us gain a sense of control over our physical and mental environments.

That's why -- surprise! -- a top Silicon Valley executive carries a notebook to jot down reminders. And a productivity expert resorts to list-making to clear his head every day.

Many of the best digital-age strategies are time-tested organizational strategies that still work beautifully, Levitin says. They're backed up by decades of research into brain function and behavioral psychology.

Levitin is also a musician, record producer and dean of Arts and Humanities at the Minerva Schools at San Francisco's Keck Graduate Institute. He penned two New York Times best-sellers, including "This Is Your Brain on Music," based on his self-described mission to translate complex concepts into information that people can use in their daily lives.

Understanding how the brain functions can help us use its innate abilities for our advantage; it also can save us from fighting against its limitations, such as buying into the idea that multitasking will help us get things done. Here are some of the



Neuroscientist Daniel Levitin's newest book, "The Organized Mind," explores strategies for dealing with digital-age info overload.

brain function basics that Levitin hopes will help us use our heads better to organize our lives:

Enhance your memory

Science tells us why we should make to-do lists, plug appointments into smartphones, or jot brilliant ideas onto 3x5 index cards, Levitin says.

"The brain is a vast repository of millions of factoids, and names and places," he says. "All these concerns percolating up inside your brain eat up your attentional capacity."

That's why you need systems for off-loading all the information from your brain into the physical world. Written language, which came along 5,000 years ago, is probably the earliest example of a "brain extender" that supplements the brain's memory.

Levitin says the "Zen point of view" illustrates this point, holding that all the undone things nagging in your brain pull you out of the present. He quotes productivity expert David Allen, who says he always feels relaxed and focused after making a big list of everything that is on his mind. "He recommends doing this clearing-the-mind exercise every day," Levitin says.

Tech companies and their fans may try to convince us that the latest mobile gadget is today's most effective brain extender and therefore key to an organized life. However, Levitin says old-fashioned pen and paper work just as well. It all depends on your personal organizational style.

Sheryl Sandberg, Facebook's chief operating officer, "reluctantly" admitted to Levitin that she uses a notebook and pen for her to-do list. Yes, she said, it is "like carrying around a stone tablet and chisel," but she and other highly successful people told Levitin they swear by these "ancient" technologies.

Stop multitasking

Actually, what we call multitasking doesn't in fact exist, Levitin says. When people boast about juggling several tasks at once, they are actually "sequentially tasking," with their brains "flitting from one thing to another."

But trying to do too many things at once has been found to overstimulate the brain by increasing the production of cortisol and the fight-or-flight hormone adrenaline.

Sending a text, looking up something on the Internet or processing other "shiny new stimuli" excites the brain's novelty- and reward-seeking centers, to the detriment of the prefrontal cortex, which is responsible for keeping us on task. "Instead of reaping the big rewards that come from sustained, focus effort, we instead reap empty rewards from completing a thousand little sugar-coated tasks," Levitin says.

So much is made in the professional world of multitasking, with employers listing it as a desired qualified for job applicants.

However, Levitin says most jobs don't benefit from multitasking. "There are only four professions I can think of that require multitasking: breaking news reporter, publicist, air traffic controller and U.N. translator," he says. "And with the latter two, those people are not supposed to work for more than 45 minutes at a time without a half-hour break."

Limit your choices

While we're supposed to feel empowered by retailers offering us a world of choices when we shop in stores or online, too many options can be mentally paralyzing. Similarly, gathering too much information about products can lead to bad decisions, Levitin says.

"If you're trying to decide which car to buy, will having 57 possible pieces of information help you make a better decision?" he asks. In fact, he says, research shows that most people only have three or four things they really care about when buying most items -- whether it's a washing machine or a house.

When Levitin and his fiancée were house-hunting in Orinda several years ago, they asked the real estate agent to stay silent during the walk-through. They didn't want her to fill their heads with too many tantalizing-sounding details, some that might cloud their decision-making process.

"Knowing the schools are good is irrelevant for people with no kids unless you're thinking of the resale value later," he said. "Or knowing the property has great soil when you're not a gardener is also irrelevant."

- To reduce "multitasking," limit times for social networking and reading and responding to email. Levitin admits that he likes to go on Twitter and Facebook, but he may only do it once or twice a day.
- Tackle a few small jobs before the big one: Sometimes doing jobs that take no more than two to five minutes each will exercise those "work muscles" in your brain and relieve it of worrying about things left undone.
- On more difficult jobs, work in 50-minute segments: Certain people can immediately switch mentally into a "flow" state, where things come easily and without self-defeating judgments. The rest of us usually need at least 15 to 20 minutes for the brain to settle into a state of sustained concentration, where flow can happen.
- Get plenty of sleep: "Sleep is among one of the most critical factors for peak performance, memory, productivity, immune function and mood regulation," Levitin says.

-- Martha Ross, Staff

Levitin in Person

"The Organized Mind" author Daniel Levitin will appear in the Bay Area on these dates:

Aug. 21: 7:30 p.m., Kepler's Books, 1010 El Camino Real, Menlo Park

Aug. 22: 7 p.m., Towne Center Books, 555 Main St., Pleasanton

Sept. 4: 6:30 p.m., The Commonwealth Club of California, Lafayette Library, 3491 Mt. Diablo Blvd.

Oct. 14: 7 p.m., Orinda Books, 276 Village Square, Orinda