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Multitasking is Man's Fabrication – Switch-Tasking is Overrated

Attention Management is the Productivity Skill you Need



Science shows the human brain is not wired for multitasking. Instead we switch-task which takes a mental toll on our cognitive energies, eats up time, derails mental progress and is counter-productive. We can work smarter and employ attention management strategies to gain control. Attention management is a key skill.

Multitasking and Attention Management

In a busy environment, employees rarely have the luxury of focusing on one task at a time. Employers expect one person to handle multiple priorities. Employees balance competing demands for their time and energy. They call it multitasking. This is a familiar scene in many professions and industries.

We have all stood and watched a receptionist field distressing calls, schedule appointments, greet walk-ins, process paperwork, respond to a call from a back room, access files, spin about from desk to printer multiple times, guide clients to various offices, sign for a courier package, wave goodbye to a co-worker, and slip in a sip of coffee. What is not so evident in that scenario is that in between performing these “people-facing” roles, he or she probably produced reports for management, managed correspondence and exercised some remarkable financial prowess.



Multitasking is Really Switch-Tasking

The thing is it is not humanly possible to be a multitasker. However, it is possible for humans to switch-task. That means they somewhat effectively must be able to rotate their concentration smoothly and entirely from one activity to another. They are somewhat effectively able to prioritize tasks and address the most critical and pressing demands first. Though switch-tasking is the more apt description, its effectiveness is questioned, because whether you call it multitasking or switch-tasking it has proven to be mentally taxing on our cognitive energies and thus is less efficient, and productive. The inefficiency of multitasking is most pronounced with activities that require abstract thought and careful attention.

Then they Wanted to be Super-Taskers

The term multitasking was first published in the 1960's to describe the capabilities of a mainframe computer designed to cover a complete range of applications. The term became a buzzword applied to human tasking to make us sound proficient in juggling different work activities and shifting attention from one task to another. Before long, the term multitasking was paired with productivity and efficiency. Then people decided they could call themselves super-taskers.

Typically, multitaskers think they are more effective than is actually the case. Computers are designed for multitasking; they can run more than one application simultaneously. Science has proven that when activities require abstract thought and careful attention our brains do not have the ability to perform them simultaneously. We cannot emulate a computer. Decades of research repeatedly shows that performance suffers when people try to multitask. This might not mean much if you're brushing your teeth and watching a movie at the same time. But, in the workplace, it can be detrimental.

Human Brains are not Wired for Multitasking

Though the brain is complex and can perform myriad tasks, our brains are not wired to do two things at once. Your brain can become adept at processing and responding to certain information, but it cannot fully focus when trying to multitask. There appears to be a processing bottleneck. Bottlenecking refers to the idea that because people only have a limited amount of attentional resources, it prevents the brain from working on certain key aspects of two tasks at the same time. Instead the brain switches focus. What you think of as “multitasking” is really just bouncing back and forth between tasks very quickly – switch-tasking. Each time you switch activities, you force your brain’s executive functions (the part that manages how, when, and in what order you do tasks) to go through two energy-intensive stages:

1. First, there’s goal shifting. This is where you decide to do one thing instead of another.
2. Next, there’s role activation. This is where you change from the rules or context of the previous task to the new one.

Multitasking is largely limited by “the speed with which your prefrontal cortex processes information. Paul E. Dux, co-author of a study on this brain process, believes that this process can become faster through proper training. However, the study also suggests that the brain is incapable of performing multiple tasks at one time, even after extensive training. The study further indicated that, while the brain can become adept at processing and responding to certain information, it cannot truly multitask.

Playing Tennis with your Cognitive Energies is Mentally Taxing

When you try to multitask, you are, essentially, playing tennis with your cognitive energies, volleying them back and forth at a moment’s notice. Depending on the complexity of the task or the cognitive load, your brain may not be as responsive as the tennis ball, it may take a little time to switch directions. Your brain can become adept at processing and responding to certain information, but fundamentally, your attention is limited by the processing power of your brain, limited by the resources available to the neurons there.

Depending on the complexity of the competing input switch-tasking can use up a lot of brain bandwidth. Keep in mind that all processed information contributes to your mental fatigue. When there is a vast availability of information, your attention becomes the more scarce resource. Human beings simply cannot digest all the information. Dr. David Meyer, professor of psychology at the University of Michigan in Ann Arbor says humans simply don’t have the brainpower to multitask: “... as long as you’re performing complicated tasks that require the same parts of the brain, and you need to devote all that capacity for these tasks, there just aren’t going to be resources available to add anything more.”



Consequently, the brain needs to employ mental filters to determine the most important information needing to be processed. These filtering processes happen automatically, beyond conscious awareness. When there are multiple sources of information coming at you from the external world or emerging out of memory, your brain may find it difficult to filter out what's not relevant. If you try to multitask and learn new information the data is routed into the wrong part of the brain.

Playing tennis with your cognitive energies is mentally taxing. Trying to split your attention between tasks that require effort and concentration means one or both of them will suffer. Research shows that it takes 20 to 40 percent longer to complete a group of tasks while multitasking—with nearly twice as many errors.

We are Entrenched in the Myth that Multitasking is Productive Work

If it is impossible, why do so many of us spend our days trying to multitask? Employers believe the myth and expect it. We want to believe the myth and thus follow along. It is ingrained in how most of us spend our time at work. It is a vicious cycle that takes three forms:

1. Multitasking – is attempting to do two or more tasks simultaneously.
2. Switch-tasking or context switching – is switching back and forth between tasks.
3. Attention residue – is performing a number of tasks in rapid succession

We have hashed out the first two. Now, now let us concentrate on attention residue.

Attention Residue Splits our Attention and Fills Head Space

Attention residue describes the way your attention is split when you have multiple tasks or obligations crowding your agenda. When you move from one task to the next one, it takes time for your attention to catch up. Your brain is not like a machine that you can switch off. Pieces of ideas and lingering thoughts keep swirling around in your head even after you have crossed an item off your to-do list. This is attention residue, and it basically keeps part of your cognitive resources busy, crowding out space you need in our head for the next important thing. The attention residue creates a division in your focus. You may not be aware of it, but it causes you to be less efficient in your work and reduces your overall performance. As a result, you might not be as good a listener, you may get overwhelmed more easily, you might make errors or struggle with decisions, and impede your ability to process information.

To conquer attention residue you have to do deep work, which means you have to stop thinking about what is swirling around in your head to fully transition your attention to focus on another thing and perform well. Deep work is doing one thing, focusing on a single, intense task for a long period of time to reach peak productivity. If that means you have to sequester yourself to focus, do so. The idea is not to stop something else until you are completely done and only then should you begin a new task.

The Cost of Switch-Tasking

There is a heavy cost associated with switch-tasking, and it is not all about money. It is a mental toll. People who think they can split their attention between multiple tasks are not actually getting more done. In fact, they're doing less and generally performing poorly when compared to those who single-task. In fact, research has found that every additional task or tool you "switch to" eats up 20% of your productivity! Even brief mental blocks created by shifting between tasks can cost you in productivity and time spent. However, the true costs of multitasking are to your mental health, happiness, focus, and ability to learn new things. Those are heavy costs for anyone. So, let's explore all these costs.

Switch Tasking Eats up Time

The studies show that because the brain cannot fully focus when you try to multitask, you actually take longer to complete tasks. Any kind of automatic task that doesn't require a lot of thinking would not be a major disruption, but even quick tasks can be counter-productive when you are working on one task and are interrupted on a completely different topic because you have to completely shift your thinking, and your cognitive and attention resources. It takes a mental toll and time to shift back and forth.



It might not be as undermining to switch activities within the same theme, but as a rule it takes around 25 minutes to get back on track – 23 minutes and 15 seconds to be exact, according to Gloria Mark, who studies digital distraction at the University of California, Irvine. Her studies also show that it is common for information workers to switch tasks every three minutes. Partly because of the demands of their job, but often they are distracted by self-interruptions – switch-tasking due to their technologies.

"We had observers go into the workplace and we timed people's activities to the second. We've been to various workplaces, all high-tech companies. We wanted to look at information workers. We had observers shadow each person for three and a half days each and timed every activity to the second. If they pick up a phone call, that's the start time. When they put the phone down, that's the stop time. When they turn to the Word application we get the start time and stop time. We found people switched these activities on average of every three minutes and five seconds."

The most notable of her findings was that roughly half of them were self-interruptions. That study was done in 2004. In her most recent study those stats are even more shocking.

People switched tasks, on average, every 40 seconds. People are even more busy trying to multitask – checking emails fifty times a day or more, with social media, and messaging adding even more demands.

You have probably been switch-tasking most of the day. Maybe you just spent forty seconds checking twitter and will need to check email for the 10th time today. Your to-do list has a few check marks, and as soon as you finish reading the next few paragraphs, you've got to make a couple appointments, and then there is a new project that needs your attention. Glance around you. Is your cell phone nearby dingling alerts? Is your browser window still open? How many tabs open – research, podcast, Facebook, Ebay, vacation spot? Later it will be children, shopping, dinner, sports, or hobbies. You will be switch-tasking for a few more hours.

*minutes of concentration and mental
processing time you lost, just today...
gone like wisps of smoke*

Try to determine ? While you were working how many times were you distracted or interrupted today? **Now take that number and multiply it by 20.** That is at least how many minutes of concentration and mental processing time you lost, just today.

Switch-Tasking Derails Mental Progress

Switch-tasking when it is not necessary does not just eat up your time, it derails your mental progress. You may be sacrificing some your best thinking. Dr. Marks is adamant: "I argue that when people are switching contexts every 10 minutes they can't possibly be thinking deeply. There's no way people can achieve flow. Our research has shown that attention distraction can lead to higher stress, a bad mood and lower productivity,"

Students might find it difficult if not downright impossible to learn new information while engaging in multitasking. One study stated that in one form of switch-tasking the student paid partial attention: "...skimming the surface of the incoming data, picking out the relevant details, and moving on to the next stream." Students were able to cast a wider net to filter information but were often unable to zero in on what was important. Academically, these students were less successful than students who did not try to multitask.

Switch-Tasking or Trying to Multitask is Ineffective and Counter-Productive

Switch-tasking or trying to multitasking has been decisively proven to be an ineffective way to work. Decades of research repeatedly shows that performance suffers when people try to multitask. It is not only counter-productive, they suffer negative emotional effects. Research expands on the consequences of excessive multitasking on our well-being:

1. Leads to anxiety: neuroscientists say that multitasking literally drains your mind's energy reserves, causing you to lose focus and become more anxious.
2. Impedes short-term memory: a 2011 research study from the University of California San Francisco found multitasking negatively impacts your working memory used to manage and focus on key information.
3. Inhibits creative thinking: our minds need space to digest and incubate new ideas. With added anxiety and a lack of brain "space" caused by multitasking you to lose your ability to think outside the box and be creative or solve problems.
4. Stops you from getting into a state of flow: a state of low requires sustained effort and focus. When you are in the flow you are so focused on the task, your productivity rockets to new dimensions.
5. Causes more mistakes and less productivity: multiple studies have found that multitasking causes people to take longer to do simple tasks, causes a drop of IQ by an average of 10 points, and can even have the same negative impact as losing a night's sleep.
6. In 2008, it was estimated that \$650 billion a year is wasted in US businesses due to multitasking.
7. Links between technology overuse and an increase in depression.

Anecdotally, people were reporting they were crushed by all of their multitasking projects. When tasks involved making selections or producing actions, even very simple tasks performed concurrently were impaired.

We are caught in a vicious cycle, thinking we must do more to prove ourselves. We think we can multitask. We think we are productive. However, we are not adept at deep work. We lack the discipline to walk away from our technologies.

We have to retrain ourselves to work smart.

The Super-Tasker Exception

If you think you are the exception and can multitask and remain focused and productive, think again. You might work faster to compensate and think you are doing two things at once, but the fact remains that it is extremely rare that a person can do two concentrate tasks at once without compromising one of them.

But, you ask, what if some people have a special gift for multitasking? Stanford researchers compared groups of people based on their tendency to multitask and their belief that it helps their performance. They found that, “Heavy multitaskers (those who multitask a lot and feel that it boosts their performance) were actually worse at multitasking than those who like to do a single thing at a time. “The frequent multitaskers performed worse because they had more trouble organizing their thoughts and filtering out irrelevant information, and they were slower at switching from one task to another.”

You ask, surely younger people raised on multiple devices and apps are better suited to multitasking? Again, the answer is no. There is nothing magical about the brains of our digital natives that keeps the younger generation from suffering the inefficiencies of multitasking.

So sorry, to burst your bubble. Accept that you are not a super-tasker. Accept that trying to multitask is a bad idea. Believe this: There are three consequences of multitasking or switch-tasking:

1. Tasks takes longer
2. Mistakes increase
3. Stress levels increase

Accept that you can work smarter by directing your attention to the ways your brain works best.



Work Smart to Break the Cycle

How can you break the cycle and protect your attention, focus, and time? The answer is to work smart.

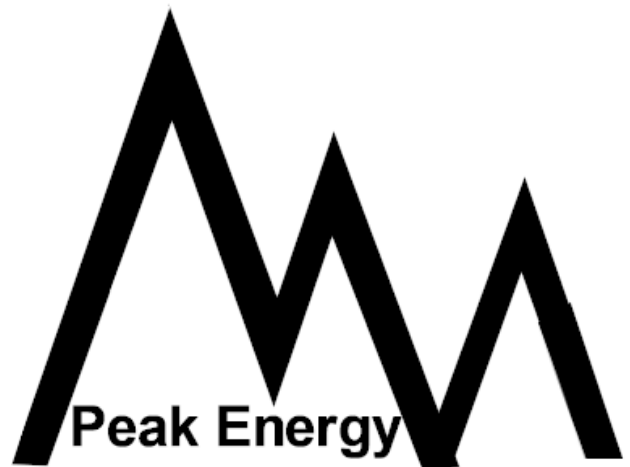
Researchers at the University of Nottingham conducted 83 separate studies to explore energy and self-control. What they found could very well change the way you start your day. Your energy levels go through a natural ebb and flow throughout the day. “The researchers found that self-control and energy are not only intricately linked but also finite, that human daily resources tire much like a muscle. When you get busy you may not realize that as the day goes on, you have increased difficulty exerting self-control and focusing on your work. As self-control wears out, you feel tired and find tasks to be more difficult and your mood sours. This leads to less productivity.

During those hours when your self-control is highest are the most important hours of your work day. This might lead you to think that you should spend those hours working on multiple things. However, that is the time to set aside the uninterrupted block of time for focusing. “It is doing the right things in the morning that makes your energy and self-control last longer.” Here are four ways to work smarter.

1. Focus on Single Tasking when you have Peak Energy

One of the best things you can do is create a focused daily schedule that promotes single-tasking.

- Switch-tasking in the morning is not the best plan. The morning is usually when you have tons of energy, and it feels like you can do two or three things at once. Switch-tasking is tempting, but the pressures and negatives of switch-tasking can set your whole day back. Scheduling mundane office tasks for later in the day allows for deep work in the morning when you have the most energy.
- Determine the hours you are most productive and plan to do your most intense work without interruptions at that time. Go offline when you need to focus on your most important work. Leave non-essentials until you have done some important work.
- Let the people in your life and organization know what this time is dedicated for. Encourage them to do the same.
- Create a clear workspace that removes the reminders of non-essential work that might draw your attention away from deep work.
- Ignore your phone, messages and email during deep work. Schedule chunks of time for those items outside that time.
- When you choose a task to work on, focus on what you “should” do, not what you “could” do.



Whenever possible create an environment where you are free to focus on just one thing.

2. Bundle Tasks to Free Headspace

Many of us struggle with the never-ending nature of our to-do lists. A daunting list can create a build-up of attention residue. This might not mean much if you're checking personal email while binge watching Netflix. But, when important work needs to be done, that list of mundane chores looms, takes up headspace, slows you down, and adds anxiety and stress to your day.

To make that list of chores less distracting, bundle small or short unrelated chores into manageable chunks and designate an hour or two to power through them. Deciding how and when you are going to attend to a task reduces uncertainty and improves self-efficacy. Try to do that every day.

3. Minimize Self-Interrupted Tasking

Given the media-rich landscape, it is tempting to get into a habit of dwelling in a constant sea of information with too many choices. We are conditioned to self-interrupt.

It has become the norm to check your phone and your email while working on other tasks. It is easy to be so tied into email and social media you are conditioned to expect an interruption every few minutes. Yet, it interrupts your focus.

Another thing that could interfere with your concentration is your need "to know". When a question arises is your state of mind able to handle "I don't know". With a world of knowledge at your finger tips, can you avoid the temptation to "find out now"?

Distractions, like turning on TV or checking the bustle on social media can draw you in, and without knowing it or intending for it to happen, several more minutes or an hour drifts away. When you are going through your to-do list at lightning speed are you free from self-interrupted multitasking? Self-interrupted tasking chips away at your attention span.

If this happens to you, don't turn on the television. Hide your phone, or remove your browser shortcuts and log-out of every social media account. This will make you more conscious of your choices as you concentrate on that bundled list. Better yet put technology out of sight.

Focusing on a task helps protect you from the dizzying amount of distractions in the modern workplace.

4. Put Technology out of Sight

Modern technology complicates the situation for many workers since they are expected to handle simultaneous demands. But, it is not just the technology that complicates the situation. It is the presence or visibility of the technology. It is our lack of control to ignore the technology to concentrate on what is important as we manage our workloads.



Attention Management is a Productivity Skill

We live in a culture obsessed with personal productivity. We boast about being busy or our time management skills. But, being prolific is difficult when the workplace is a minefield for diversions that make people less efficient, less productive. Being able to control where you focus attention, being able to focus intensely on one thing at a time has a more direct advantage in your productivity.

Research has shown that people who can focus for sustained periods of time regularly perform better on all sorts of cognitive challenges. They get more done in less time. We all have the same twenty-four hours to work with. As the workplace gets busier and more distracting, the employee who has ability to sit down and focus for an extended period of time will have a distinct advantage over other employees who try to be super-taskers.

Maura Thomas has studied the field of productivity for more than two decades. She is an expert in individual and corporate productivity and work-life balance and has become the most widely-cited authority on attention management. She estimates that our daily information input in the last decade was five times as high as that in 1986. Therefore, she claims attention management is the most important skill to have in the 21st century. With digital revolution and the advent of internet and communication devices, time management is no longer enough to guarantee a good quality of work. Allocating time to perform one activity does not mean that it will receive attention if constant interruptions and distractions come across. Therefore, people should stop worrying about time management and focus on attention management.”

Focus is a skill. Thomas’s expertise helps driven, motivated knowledge workers control their attention and regain control over the details of their life and work. She says, “Your attention determines the experiences you have, and the experiences you have determine the life you live. Or said another way: you must control your attention to control your life. Today, in a world where so many experiences are blended together – where we can work from home (or train, plane or beach), watch our kids on a nanny-cam from work, and distraction is always just a thumb-swipe away – has that ever been more true?”

It is worth repeating

**to control your life, control
what you pay attention to.**

Rather than allowing distractions to derail you, you choose where you direct your attention at any given moment, based on an understanding of your priorities and goals. When you want to be more productive refrain from analyzing how you spend your time. Instead pay attention what consumes your attention.

Control your Time and Priorities through Attention Management

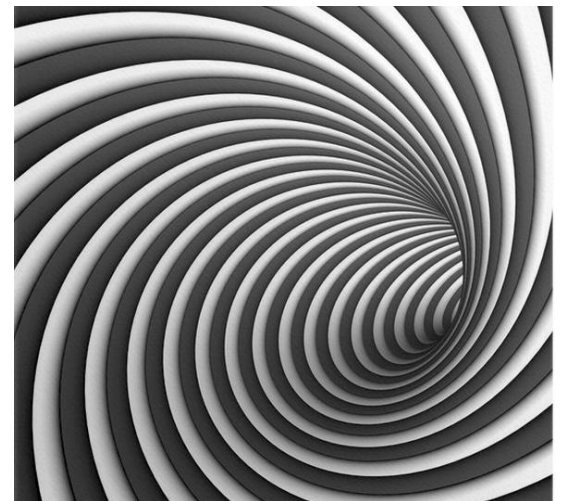
Attention management is much more than checking things off a to-do list. Attention management is a skill. It is about:

- Taking back control over your time and your priorities
- Being intentional about where you spend your time, instead of reacting to what's happening around you
- Getting in the zone to think deeply and creatively to do deep work and enjoying a more balanced life outside of work.
- Being able to focus and zero in on what is important.

Attention Management = Where you Place your Focus

In a nutshell, attention management is about where you place your focus. That means that focus is as much about what you're paying attention to as what you're blocking out. Steve Jobs said, "People think focus means saying yes to the thing you've got to focus on. But that's not what it means at all. It means saying no to the hundred other good ideas that there are. You have to pick carefully."

There are two kinds of focus. Focus on your life and focus on your task at hand.



► Focus on Your Life

Focus on your life starts with giving priority to the people and projects that matter. When you do that it will not matter how long anything takes because you are focused on getting things done for the right reasons, in the right places and at the right moments. People who exercise attention management to be productive do not agonize about which desire to pursue. Since they prioritize their attention, their choices are easier. They are more able to pursue things that are personally interesting and socially meaningful. You can achieve great things through focus.

► Focus on Your Priority Tasks

In attention management, exercising focus on your priority tasks may require adjustments.

- First, stop trying to multitask. Period.
- Second, stop fighting against your body's natural ebbs and flows. Your body's energy has its own path and you are naturally more energetic and motivated at specific times of the day. Work with it. Structure your best deep work based on when you know your productivity curve is at its highest. Your energy level is a basic reminder that you cannot do it all, and that you should be strategic in how you plan your day. On a more complex level, it provides you a roadmap for designing the perfect work day based on your own rising and falling productivity.

- Third, build focus in your day by minimizing sensory distractions and emotional distractions. Sensory distractions are the things happening around you. An emotional distraction is your internal dialogue.

To make changes:

- Create a focus friendly environment for your work. Clutter, external noises, and people can deter you from focus. Minimize the clutter. Wear headphones if you cannot eliminate the outside noise. Put up a do-not-disturb sign.
- Fit in real breaks. Studies show we work best in 90 – 120 minute cycle of alertness before we need a mental break. When your body signals you that the 90 minute boundary has been crossed, disengage to go for a walk away from the computer, the office, the work environment, technology. Do something different and refreshing to help your brain reset or recharge. A real break takes your mind away from what you're doing completely. A different environment like the outdoors or a different room looking at the outdoors does that. Pretend you are going to a meeting, but instead of people you are meeting with trees.
- Control your behavior. Lock away your technology, We are not suggesting you stop cold turkey. Attention management offers an alternative - be thoughtful about the timing of those distractions.
- Open only one window on your computer screen and give your full attention to one task until it is complete, or until you reach a designated stopping point. Try to “unplug” completely from your technology for at least an hour or more, as often as you can. Try it for fifteen minutes at first, then build up to an hour, or even longer. Turn on the TV when you already know what it is you want to watch.
- Control your thoughts. For many of us, this is difficult. Our minds do wander. Practice noticing when your mind is veering off in its own direction, and gently guide your focus back to where you want it. If you think of some important small task while you are doing focused work, jot it down on a notepad and come back to it later. Do the same with information you want to look up online.
- Recharge and strengthen your focus through deliberate rest. Recharging does not come from real breaks by themselves. You need deliberate rest or relaxation. We do not mean sleeping the required hours your body needs. Deliberate rest is immersing yourself in activities that are engaging and mentally stimulating, ones that keep your attention, but do not overtax your brain. You can give your brain a boost of energy through hobbies, leisure activities, and family time. Playing a musical instrument, cooking.
- At the end of each day be proud that you were able to choose not to place attention on the unimportant things that tempted you.

Inspired and Committed, We Celebrate Your Journey

At Corro, we believe in the power of people. We are inspired to expand humanity's capacity for wisdom, compassion, and courage.

In our commitment to helping you achieve long-term personal development and use your organizational platform for positive impact, we celebrate the journey of lifelong learning while fostering an all-inclusive community driven environment of meaning, personal connection, and fun.

Corro is not just a Work Space – Our Aim is Helping the Community Thrive through People Success