

TO BE PRESENT OR NOT

AN ESSAY ON THE ATTENTION CRISIS
AND HOW TO REGAIN FOCUS

By Borja Santos Porras

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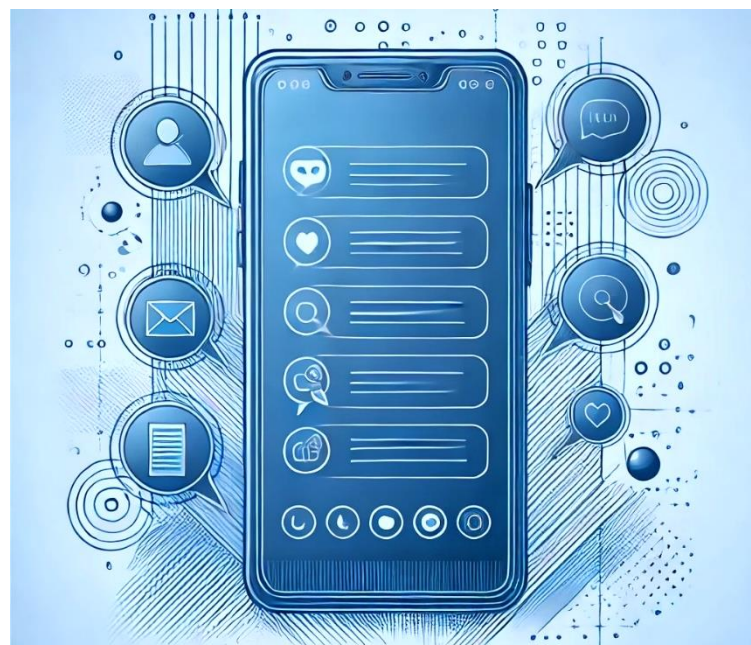
You plan to search for something on your phone and 20 minutes go by looking at trivial things. You have an inner restlessness that makes it almost impossible to spend an hour without checking WhatsApp or if you have received an email. You talk less at the dinner table with your friends or your family, because most of them are looking at their cell phones every few minutes. You wake up tired and realize that you slept less because you streamed too many episodes or because you entertained yourself watching nonsense on your phone. You find it hard to concentrate on a task at work without getting distracted. You often connect to Twitter, LinkedIn or a digital newspaper to read the news, but you realize that you do not delve into any topic, and you are even more frustrated and outraged. You have struggled to get past the first or second chapter of every book you want to read, and you still remember the days you were able to devour a Shakespeare book in a couple of nights.

You are not alone. In the age of information and constant digital stimulation, inattention has become a growing concern that extends beyond the individual

I also started worrying about this problem seven years ago. I suffered from it. I had constant distractions that kept me from concentrating and I was trapped in a cycle of digital hyper connection. That continuous partial attention did not allow me to be productive. Somehow, I blamed myself

for it, and I would try tricks, apps or tips, but I always fell back into the same trap. Eventually, I realized that the responsibility goes far beyond me. It is a constant battle against a force greater than us. We find ourselves jumping from one idea to another, unable to stay focused on a single task for extended periods of time.

I thought that this problem was affecting my productivity. I also realized that **attention and concentration are the superpowers of the 21st century**¹. They are even more important than talent or IQ, because of their impact on our efficiency and effectiveness. Our growing inability to focus also profoundly affects other areas of life, such as mental health, family dynamics and personal relationships, and even the functioning of democracy itself. Addressing the significant challenges facing **our societies that require sustained attention and thoughtful**



engagement. Deep reflection is essential for tackling these complex issues and safeguarding - if not revitalizing - our democracies.

The telephone and other digital applications are our Trojan horses; they carry a load of powerful distractions that infiltrate every aspect of our daily lives. Getting constantly distracted is not just a result of personal failure; it is a systemic and urgent problem we must understand and address.

What is attention?

Attention, according to William James (1890), is "the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains [p. 404] of thought. Focalization, concentration, of consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others". Attention involves maintaining vigilance during a task, prioritizing stimuli, and managing external interference while maintaining our focus.

I personally also like to associate attention with the concept of *Eudaimonia*², which comes from the Greek and is etymologically composed of the words "eu" ("good") and "daimōn" ("spirit"). It is a state of reaching one's full human potential that is associated with happiness. It is like the satisfaction we feel when entering a "flow state"³, performing an activity when fully immersed and enjoying the process by becoming our best selves. The virtues of attention and mindfulness are fundamental; without them, we are unable to achieve that happiness.

Dr. Gloria Mark⁴, professor at the University of California and author of the book *Attention Span*, explains that the average attention span on a screen in 2004 was 2.5 minutes. A few years later, it dropped to 75 seconds. Today, it barely reaches 47 seconds. This can be observed in different areas. For example, in the entertainment sector, the length of film and television shots has decreased to about four seconds per shot. In other research by Dr. Mark⁵, they found that people check their emails an average of 77 times a day, which fragments their attention. The amount of time we spend in front of screens is equally alarming. Children between the ages of two and four spend an average of two and a half hours a day in front of a screen. Between the ages of five and eight, that average reaches three hours a day⁶.

One day I asked a group of students to check their cell phones to see their average daily usage. When they did a basic average, it turned out to be six and a half hours. Almost seven hours glued to their phones. I wondered: when do they sleep, eat, study or exercise? Research in 2016 indicated that we touch our phones 2617 times a day⁷.

Dr. Mark warns that the traps that capture our attention while using our digital devices can be diverse. *Framing errors* refer to how we interpret our context, often misjudging the time needed for specific activities (you may be familiar with: "just half an episode of Netflix and off to bed..."). *Wandering attention* refers to the natural tendency of our mind to wander between external and internal stimuli, exacerbated for example by the constant visibility of



tabs and apps (we often have many newspaper tabs, YouTube music, Teams or WhatsApp open at the same time). *Rotting attention* describes the difficulty of giving up easy and rewarding activities on our devices, such as gaming and social networking, especially when we are tired. *Social networking* is particularly problematic because of our need for social connection or *online identity*, which is crucial for many young people, can consume a great deal of time, attention and presence.

What are the consequences of the lack of attention?

Reduced attention spans have negative consequences in many areas of our lives.

First, declining attention spans affect our **health**.

The prevalence of Attention Deficit Hyperactivity Disorder (ADHD) in U.S. children and adolescents has nearly

doubled in the past two decades, reaching 10.2%.

In addition, distractions are the main cause of accidents in the city of Barcelona⁸. The “Dirección General de Tráfico (DGT)” claims that they were behind 25% of accidents and 31% of fatalities on Spanish roads in 2016. The US National Traffic Safety Administration reports⁹ that phone use is involved in 12% of all car accidents on US roads and claims that a total of nine people die every day due to distracted driving.

Insufficient sleep is also an important consequence. According to data from the World Health Organization, 40% of the population sleeps poorly. One in four adults consider that they do not get enough rest, with insomnia being the most prevalent disorder. Forty percent of Americans suffer from sleep deprivation, and in the last century, the average child has lost 85 minutes of sleep on average out of every night¹⁰. In addition, insufficient sleep harms memory as our senses become confused and it affects our ability to concentrate. As Johann Hari explains in his book *Stolen Focus: Why You Can't Pay Attention and How to Think Deeply Again*,¹¹ "One of the things that happens is that during sleep, your brain cleans itself of waste that has accumulated during the day. During slow-wave sleep, your cerebral spinal fluid channels open up more and remove metabolic waste from your brain". Ninety percent of Americans look at some electronic device that emits glare an hour before bedtime, which also affects sleep and thus health very negatively.

Second, low attention spans affect **productivity**. There is a lot of evidence on this

Research at the University of California at Irvine calculated that, on average, it takes 23 minutes to regain focus after an interruption¹². Another study at Michigan State University concluded that students were twice as likely to make errors when interrupted, even if the interruption lasted less than three seconds. A third Carnegie Mellon University study tested 136 students. Some of them were asked to take their phones off, while others had their phones on and received intermittent text messages. The students who received messages scored, on average, 20% worse than the rest of the students. In 2005, research by Dr. Glenn Wilson at the Institute of Psychiatry in London found that persistent interruptions and distractions at work led to a 10-point drop in IQ, twice the impact of marijuana use.

It is therefore normal that in the workplace¹³, 54% of *Millennials* and Generation Z say they are not performing as well as they should, 50% admit to being less productive, and 20% deplore not being able to reach their potential (and most likely their "*Eudaimonia*").

This decline in our ability to pay attention also influences the PISA results¹⁴. In 2022, there was a drop in average performance of 10 points in reading and almost 15 points in mathematics, compared to the 2018 results. According to the OECD, 65% of students report being distracted due to the use of digital devices in at least some

math lessons, and 45% feel nervous if they do not have their phone near them.

This decrease in productivity can be reflected in the economy. The *Economist* magazine¹⁵ estimated that people's use of social networks costs the US economy \$4500 per employee every year. It also drains creativity. If the mind is free of distractions, it can think about everything it has assimilated and begin to make new links and connections. However, by devoting our energy to switching rapidly between tasks without concentrating, we create fewer of them.

It is also important to note that attention loss impacts different types of memory in various ways: digital overstimulation saturates the senses, affecting sensory memory; distractions limit immediate retention (short-term memory) and problem processing (working memory); while fragmentation and scattered attention make it difficult to store and retrieve facts (long-term memory) or remember planned tasks (prospective memory).

Third, and sometimes less obvious, lower attention spans affect our **democracy**.

A critical aspect of the decline in democracies worldwide is the decreasing ability of citizens to participate meaningfully in democratic processes. The quality of a democracy depends, in part, on informed and engaged citizen participation, but inattention can undermine these fundamental principles.

Johann Hari mentions¹⁶, "*I don't think it's a coincidence that this crisis in paying attention has taken place at the same time as the worst crisis of democracy since the*

1930s. People who can't focus will be more drawn to simplistic authoritarian solutions— and less likely to see clearly when they fail.”¹⁷

When people do not pay sustained attention or focus on unreliable sources of information, they are more prone to fall for disinformation or fake news. This is harmful to democracy because it distorts public debate and leads to ill-informed decisions. We are even reaching a point where we have trouble identifying reliable sources and determining which ones deserve our trust¹⁸.

Lack of attention also leads to a superficial approach when it comes to delving into information. The consumption of shorter and faster content weakens citizens' ability to analyze and debate complex issues.

In 2018, Mark Zuckerberg announced changes to Facebook's rules: "*The past two years have shown that without sufficient safeguards, people will misuse these tools to interfere in elections, spread misinformation, and incite violence*".¹⁹ It was not for nothing that Facebook has been accused of being the transmission belt of Islamophobic discourse and hatred in Myanmar towards the Rohingya minority and thus key in its ethnic cleansing²⁰.

What are the causes of the decline in attention and concentration?

Technological devices such as cell phones can be a source of distraction. According to a study²¹, the mere visible presence of our own phone reduces our available cognitive capacity. With the



cell phone on the table, we concentrate less.

Our belief that "multitasking" is a very positive aspect is another misconception. Johann Hari mentions that "*the average teenager believes he or she can follow six types of media at the same time*".²² For neuroscientists, when people think they are multitasking, they are actually switching from one task to another rapidly. This constant switching and subsequent rewiring of the brain takes a significant toll on attention. Barbara Oakley explains the "*attention residue*"²³: every time we switch tasks; a residue of our attention remains on the previous task. This residue is even stronger if the initial task was unfinished, contributing to a partial distraction that increases the more we multitask.

Despite understanding these issues, we find it very difficult to isolate ourselves from digital applications to concentrate.

But we cannot take individual responsibility for this failure when the best minds are hired to design algorithms that continually steal our attention. This is what many experts refer to as the "*Attention Economy*."

Attention becomes a valuable and scarce resource, which many companies seek to capture and monetize. Sociologist Shoshana Zuboff calls it "*surveillance capitalism*"²⁴ "describing how big tech companies use sophisticated algorithms to capture and hold our attention, which in turn negatively affects our ability to concentrate. This issue is therefore not solely an individual responsibility – at every step we take or with every tool we use, we are surrounded by algorithms deliberately designed to steal our attention. James Williams, a former Google strategist, compiled extensive research in an essay on how the attention economy affects us when using the Internet and argued that "*we need to do technological criticism in a similar way to literary criticism*"²⁵ ".

But how do these algorithms work?

To understand this, we need to know several factors. The first is how dopamine, a neurotransmitter responsible for transmitting signals between nerve cells in the brain, works. Although we often refer to it as the "*neurotransmitter of pleasure*", Robert Sapolsky, professor of biology at Stanford, qualifies that dopamine is actually the neurotransmitter of "*pleasure anticipation*"²⁶ ", since it is this anticipation of a reward that reinforces certain behaviors. Dopamine influences the motivation we feel when we see photos on Instagram or new news appear. It is what makes us addicted,

compromising our willpower and ultimately our attention control.

The operation is well understood with an experiment performed with monkeys trained to perform a task (push a button) and receive food as a reward. It was observed that dopamine production increased when detecting the task signal (pressing the button) but decreased when receiving the reward (food). However, when the reward was given only 50% of the time the button was pressed, dopamine levels rose much, much higher, even exceeding the levels associated with cocaine use. This is referred to by Sapolsky as "*the magic of maybe*" and is also used in casinos, where slot machines are designed to generate outcomes close to winning the jackpot, tricking players into believing they have a better chance of winning than they actually do. In the case of the Internet, phones and their "apps" can be seen as "slot machines" and the variable reward can be an interesting email, a large number of *likes* or nothing. When we *scroll down*, we don't know what may come next. We are waiting for the dopamine of what may come. It is not for nothing that the creation of the "*infinite scroll*" wastes 50% more time than without it²⁷. Influencing the level of dopamine secretion trains our minds to react to the idea of frequent rewards and reinforces harmful habits of maintaining and preserving our attention. This "*surveillance capitalism*" functions as an arms race to steal our time. Companies like Google control 50% of all notifications on our phones.

Moreover, all these algorithms break us down and know very well how we are, what we want, what excites us, what

annoys us... With the ability to automatically predict what we are likely to do. They know where to catch us. Finally, the longer we stare at the screen, the more money they make. The goal is to keep us from leaving.



Another cause is that we are social creatures and, therefore, we find it hard to ignore what others think of us. There is a desire for social acceptance that we drive through our digital avatar. However, there is a "paradox of social networks" where, although they are designed to "connect people", they steal our attention and lead us to greater isolation and diminished emotional well-being.

It is interesting to know how these algorithms also play with our emotions. Several studies and analyses have shown that headlines and content that evoke negative emotions such as outrage, fear or indignation tend to generate more clicks, *likes* and attention than those with a positive or neutral

tone, thus amplifying these messages and contributing to the polarization of our society²⁸. That is why, according to another MIT study, fake news travels at six times the speed of real news. When Bolsonaro won the elections in Brazil, his supporters were shouting "Facebook, Facebook, WhatsApp, WhatsApp, WhatsApp"²⁹. Facebook scientists had concluded that with their app they were exploiting the brain's attention through division and anger³⁰.

Another reason behind the loss in our ability to concentrate is the way we approach our work. The lines between our personal and professional lives are blurring. Technology keeps us connected 24 hours a day³¹. This is why it is common for us to deal with work issues and communications in our personal time, when we are at home after work, without disconnecting from work. According to James Nestor³², "*we spend our days half asleep and our nights half awake, lying in a gray zone of half anxiety*".

We could also mention other factors that contribute to our declining ability to concentrate such as the economic situation, food and some other ones, but they are beyond the scope of this essay.

Do we have a solution?

Given the systemic nature of this problem, a single solution is unlikely to suffice. Instead, addressing it will require a multifaceted approach involving diverse measures and proposals. While I will outline a few potential strategies here, I acknowledge the inherent limitations of this list.

Many countries have begun to **ban cell phones in certain contexts**, especially

in classrooms to improve student concentration. In France, a law has prohibited since 2018 the use of cell phones in primary and secondary schools for students under the age of 15 years³³. Sweden followed suit in 2019. A range of stakeholders ranging from civil society and parents' associations to think tanks³⁴ are advocating for restrictions on the use of electronic devices in classrooms and on school grounds. In Spain, the campaign "[Por una escuela OFF](#)"³⁵ denounces that the digitalization of school education is not beneficial to mental health or learning. More than 300 prominent figures have signed the Manifesto Off, which aims to raise awareness among citizens and authorities about the critical point we have reached in our relationship with digital technology.

A "**neuro-rights**" movement has also emerged, focusing on rights related to privacy and mental autonomy in the context of neuroscientific technologies. For example, Chile has taken a significant step in the protection of neuro-rights by enshrining them in its constitution³⁶ (article 19). The goal is to protect the mental integrity and privacy of individuals in the face of advances in neurotechnology. It is necessary to make progress in this area, including through the promotion of a potential *Universal Magna Carta of Neurorights*.

It is essential to incorporate **civil and criminal responsibility into the design of algorithms that affect our concentration and well-being**.

Developers and companies must be held accountable for the negative impact these technologies have on our attention capacity.

The creation of an *algorithm agency* could be key to regulating and overseeing these systems, ensuring transparency is promoted and the fundamental rights of users are protected, prioritizing their well-being over digital overstimulation.

Many experts refer to models like cars or pharmaceuticals to explain how social media should be regulated: while a car is a useful tool, children are not allowed to drive; similarly, although pharmaceuticals can have positive effects, those with negative side effects are carefully analyzed and regulated. It is crucial to change the narrative, viewing technological regulation not as a hindrance, but as support for responsible innovation.

Moreover, **responsible investment** in technology is required, prioritizing fair algorithms that not only favor economic performance but also align with ethical principles. In this regard, ESG (Environmental, Social, and Governance) criteria should include the "D" for Digital, ensuring that technological investments contribute to collective well-being and the protection of attention and mental health.

For UNICEF³⁷, Information and Communication Technologies (ICT) should evolve into Technologies for Relationship, Information, and Communication (TRIC), a shift that emphasizes not only access to information but also the creation of healthy interactions.

Additionally, it is essential to raise awareness about misinformation and **promote critical thinking in the consumption of information**. This

will enable individuals to analyze and question information before accepting it as true, fostering a more focused mindset that is less susceptible to the manipulation described earlier. Furthermore, it is crucial to enhance education in this area, both within families (children and parents), as well as in educational settings and businesses.

Another potential measure is to **revitalize and encourage reading on paper**. Many studies³⁸ conclude that reading on paper helps to understand and retain information much better compared to screens, especially for long and complex texts³⁹.

In France there is also an initiative where workers have a **"legal right to disconnect"**, i.e. they have a defined work schedule, and an employer cannot communicate with them outside these hours. The aim is to generate a break to recharge in a world where personal and work boundaries have blurred. Although this is an effective measure, it is probably difficult to apply in many organizations with different idiosyncrasies and visions.

There are also many measures of a more individual nature such as **establishing routines to improve deep concentration**. Adequate rest to restore our cognitive functions. Doing sports. Physical activity is one of the activities that best recharge our concentration and attention. Just a 20-minute walk in nature can help us relax significantly. It can even help us produce many more ideas, exercising divergent thinking. Finally, encouraging **meditation and good breathing practice** have been shown⁴⁰

to be beneficial for, among other things, improving attention.

Fostering Mindfulness towards Eudaimonia

It is urgent to put this problem to a greater extent on the public agenda, adequately explaining all its edges. It affects people of all ages, but especially our youth.

Only by doing so can we achieve Eudaimonia and thus become who we aspire to be. We need to delve deeper into complexity without getting distracted, engage more meaningfully with friends and family, and truly listen to their words and emotions without the distraction of our phones. We must rest better and make the most of our free time.

We should avoid wasting time on trivialities and return to the practice of deep reading, progressing beyond the second chapter of our next book. It's essential to rekindle the joy of fully focused conversations with loved ones and concentrate on tasks without constant interruptions. **Our eudaimonia depends on it**



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