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The Weight of Wonder: Why We Need Delight In Our Lives

Instructions for living a life:
Pay attention.
Be astonished.
Tell about it
– Mary Oliver

Step into the self-help aisle at any bookstore, and you'll discover a mosaic of human aspiration. Whether you're seeking to master the art of inner peace, navigate online dating, or even find harmony with that one particularly passive-aggressive colleague—there are shelves of wisdom to light the way. Each book is a reflection of our varied personal quests. Yet, at their core, they all point to a singular pursuit we all share: the search for happiness.

We buy these books because we understand that happiness requires effort. Happy lives usually have to be built and we instinctively seek out the tools to help us make that happen. The mistake we often make though, is thinking of happiness like a treasure waiting at the end of a grand adventure. We want to believe that once we find it, it'll be ours to keep and we'll be free to bask in its glory forever more. If we can just find the perfect formula for living, then we can finally get on with our blissful happily ever after.

We can and should continue to make those small changes in our pursuit of happiness. But the reality is that no amount of wisdom or careful planning can shield us from the inevitable trials of life. Heartbreak, hardship, and loss are built-in features of the human experience. No matter our hopes and plans, life has a way of dealing unforeseen challenges that shatter us. Jobs disappear, relationships fall apart, health takes unplanned turns. There are periods in life when happiness is totally out of reach. And so, how do we survive? What replaces happiness

when we don't have access to it? What hope can we hold onto when all else feels lost?

DOWN AND OUT

My mid- to late-twenties marked a particularly long stretch where happiness simply wasn't on the table for me. After a string of unfulfilling jobs left me yearning for more, I ventured into university life a little later than my peers. It was supposed to be a fresh start. Soon into my undergraduate degree, however, I realised sports science wasn't a good fit, but I slogged through anyway. I struggled to make friends or keep my bank balance above zero, but I made it to the end. Eventually, I made the leap into a master's in molecular neuroscience, with the fresh confidence of someone who was finally coming to understand their own interests and skills. Sports coaching and being surrounded by people all day? Not for me. Reading studies and science textbooks on the other hand, now you've got my attention!

I bounced into my first neuroscience lecture with absolutely no sense of the struggle ahead. "How hard can it be?" I thought as I settled into my seat and started introducing myself to the other students. The first taste of reality came quickly. "I've been working as a psychiatrist for 4 years already, I'm here to deepen my understanding of neurobiology." said one student. "Similar for me," answered another. "I finished my medical degree a few years ago, and I'm looking to build my skills so I can specialise in intensive care eventually." Wait, what? Psychiatrist? Medical degree? What's next, I wondered, Nobel Prize winners? Olympic gold medallists? Nasa engineers? One by one, each student described their own impressive academic and professional portfolios until everyone had spoken except me. I tried not to blush as I explained my own journey. "Hmmm, and

do you think sports science is a good starting point for a masters in neuroscience?" My heart sank.

Then came the lecture. It hadn't occurred to me that without any foundation in the subject, I wouldn't even have the vocabulary to understand what was being taught to me. Three hours of mysterious abbreviations, foreign words and diagrams that looked like pieces of different puzzles mixed up together by accident. Reality set in. It marked the beginning of a long stretch of struggle and shattered confidence as I crawled my way through a course I wasn't prepared for. Studying took all my time and energy, and I had little left to go out and earn money. My financial situation was so grim that paying for anything became a test of nerves. I'd say a small prayer every time I tapped or swiped my card, silently hoping it wouldn't be declined.

My personal life was no refuge. I was stuck in the cycle of an on-again, off-again relationship with someone who capitalised on my low confidence and profound loneliness. I was gaslit, cheated on, belittled and unloved. I considered packing up and retreating back to my hometown, but it was right around this time that my family was unravelling. Though my mum had always struggled with her mental health, she hadn't really shown obvious signs of alcoholism until this point. She was sinking fast and it was heartbreaking to watch, even from a distance. Going home would have meant leaving one chaotic situation for another. So, I stayed.

Post-graduation, one job prospect fell through after another. I spent months schmoozing a professor up in Leeds for a PhD project that combined sports science and neuroscience. This, I was sure, was going to be my moment. But when I finally got the chance to interview for the position, a wave of social anxiety paralysed me into a stupor. I could barely recite my own name, nevermind answer their probing questions about my experience

and goals. "Thanks for coming," I was told as the committee exchanged knowing glances and a receptionist shuffled me out and wished me the best. Classic me, I thought. Useless.

They were years of profound loneliness, heartache, and uncertainty. I knew any chance at happiness I had existed in some distant future I didn't have access to yet. I couldn't afford self-help books, but I would spend hours skimming their pages in bookstores, hoping the sales assistants would ignore me for long enough to get through them: Set small, achievable goals. Use the 'Pomodoro Technique' for improved focus. Visualise success to enhance motivation. I kept thinking if I could just hustle hard enough, it would bring me closer to this distant mirage of future success. And while that effort did eventually lead me somewhere, it didn't do much to soften the blow of my suffering at the time.

Now, looking back, I have a clearer sense of what actually kept me afloat. Amidst all that stress and struggle, my memories of that time are stitched together with flashes of something good. Not happiness, and not joy. Those were off the table. But something equally scrumptious. As miserable as I was, there was one fleeting source of comfort that was never off limits: delight.

When I wasn't hustling or dissociating in lectures, I could often be found at the You&Meow cat cafe. For £5, I could spend one hour sipping tea and fiercely defending my vegan brownie from a clowder of lively cats, each one with its own unique strategy for delighting me. Casanova, a burly orange and white tomcat, was known for seducing visitors by hopping onto their shoulders for a loud purring session. While Thomas, with his mostly white coat and rosy, pink nose, would enchant us with his array of bow ties. Or by showing off his dog-like fetch skills with the little brown sugar packets. Aya, a long-haired caramel diva, mastered the art of placing herself in highly inconvenient

spots and hissing at anyone who tried to squeeze past her. She was not to be touched, but adoration in the form of words or treats was most welcome. You&Meow was a total delight hotspot. Even now, as I write this, I can't help but smile from ear to ear.

My evening delight-seeking expeditions would take me to The Canteen, a banksy mural-adjacent bar in Stokes Croft. I could order soup for next to nothing and enjoy a whole evening of live jazz any night of the week. Or to Cafe Kino for figure drawing classes. Not so much for the drawing itself, but for the delight of watching two women collect up everyone's two quid and then whip off their clothes without the slightest hint of self-consciousness. Naked nonchalance is definitely delightful. Summer weekends brought the magic of street parties and festivals, where I found myself delighted by the persuasive charm of a neighbour selling jerk chicken from a makeshift porch grill.

Despite everything that was falling apart during my time living there, when I think of Bristol, I think of delight. That's part of the magic. Delight buoys us through the tougher times of life, but it also softens the lens when we look back. It weaves itself into our memories in ways that enrich our life stories forever. And yet, the subject of delight is oddly absent in our dialogues about life and living.

We discuss success, hardship, ambition, and all the other features of the human experience. Why is it, then, that something so vital to our wellbeing is often left unexplored?

DELIGHTEN THE LOAD

In the stressful, hyperactive thrum of the modern world, delight has been edged out. It can feel like there simply isn't enough time to focus on it as well as manage all the other things we

need to do, like juggle the needs of career, family and relationships. And with many of us struggling to meet even basic needs, delight feels like a luxury we can't afford. Who has the time to pause and watch a squirrel execute an elaborate heist on a bird feeder or enjoy the simple pleasure of a wandering late night conversation?

In the rush of daily life, such activities often end up at the bottom of our priority list (if they're on it at all). In our post-pandemic world – perhaps eager to make up for lost time – instead there's a more intense focus than ever on hustle, hype and grind. Social feeds and bookshelves overflow not with wellbeing advice but rather strategies to extract more work from drained minds and bodies. And yet in overlooking the importance of delight, we deprive ourselves of the very thing that could help defend us against the ravages of daily stress and strain.

By tuning in and deliberately sharpening your senses to the delightful, you can escape the brain's inherent tilt toward negativity.[1] We are all programmed to notice, remember, and be influenced by negative experiences much more than positive, a feature known in psychology as the 'Negativity Bias.'[2] It's a tool gifted to us from our ancestors, who were kept alive by their ability to stay focused on danger and doom. For us modern humans, that same impulse can leave us feeling desperate.

You can thank the Negativity Bias for drawing your eyes to the wobbly part of your hips you hate every time you look in the mirror (even though I'm sure your hips are lovely). Or for replaying an awkward moment from a party two years ago even though you've forgotten the rest of the event. It's the Negativity Bias that keeps you stewing over a mistake at work, even after a string of triumphs and glass-clinking moments of celebration. Or thinking about a PhD interview you fumbled eight years ago, despite the miles and years that separate you from it

(I might be projecting a tad with that last one...)

We can't help but get swept up by whatever doom and gloom is bubbling up around us. It casts a shadow that can meaningfully affect our appraisal of ourselves and the lives we lead.[3] That's why it's imperative that you have a strategy in place to correct your negativity bias. And delight is exactly the right shape to fill that spot.

From a neurobiological standpoint, the active choice to seek out moments of delight stands as a shield against chronic stress. Under normal physiological conditions, stress is reined in by special receptors in the hippocampus.[4] Their job is to recognise when your stress response has fulfilled its duty and then disarm it, ushering your brain and body back to a state of calm. Think of these receptors like your car's braking system, designed to slow you down and keep you safe when you're moving too fast. Just as brake pads can wear down from overuse, these receptors can become overwhelmed by chronic stress.[5] Enough erosion, and you could find yourself stuck in a relentless, cortisol-fuelled merry-go-round. It's a cruel twist of irony that chronic stress can leave us more vulnerable to chronic stress.

This is especially true since most of us aren't spending our 9-to-5s dodging sabre-toothed tigers. Running for our lives would at least have the handy side effect of metabolising all that stress-induced cortisol. Instead, modern-day stress triggers are more likely to be a tailgater who's way too fond of your car's rear bumper or a boss who thinks every client email is an SOS flare. Our systems of stress were built to help us literally fight-or-flight. Since we're no longer doing that, we resolve instead to sit at our desks with shoulders hunched to our ears, hoping the hippocampus will roll up its sleeves and say "Hey, adrenal glands, chill with the cortisol, wouldya?"

But with its stress-sensing receptors overtaxed and under

strain, the hippocampus can struggle to police those borders. And when our internal stress brake malfunctions, it's on us to stop the car manually. That means interrupting cycles of non-stop stress with something not stressful. You have to persuade your body to stop pumping out cortisol, by letting it know you are no longer in danger. Vacations and spa resort weekends are great, but if you relied solely on those big, sporadic dumps of relaxation, the vast majority of your time—days, weeks, and even months—would be spent in uninterrupted stress. Left in this state long enough, and your risk of facing physical and mental health problems can skyrocket.[6,7]

You don't have to book a week of annual leave to enjoy a moment of delight or strain your credit card in your pursuit of it. You can microdose delight wherever and whenever you need to, simply by giving it the few seconds it needs to burst into existence. On our busiest days, it's easy to say we don't have time and push delight to the bottom of an already overpacked task list. But it's a false economy we've become slaves to in the 'grindset' era. Extracting every last drop of productivity is

big business, and what becomes of us in the process is considered collateral damage.

Choosing delight means choosing yourself. It's a means of fortifying your soul with a sword and shield, safeguarding against those who profit from trying to crush it. And it becomes especially important in the moments when your brain is too weary to join the battle.

THE ANATOMY OF DELIGHT

And so, what exactly is delight?

At the time of writing, it's not a word that features heavily in psychology or neuroscience research. As scientists, our instinct is to strip everything down to its bare elements in the

lab, minimising or controlling variables to focus on one thing at a time. Delight is a complex, multifaceted experience that can't easily be squeezed into a test tube. And so, compiling this delight manifesto meant searching for and connecting studies that each focus on just one specific aspect of delight.

Now, how did I identify these unique elements of delight, I hear you ask? Let me introduce you to Ross Gay - poet, essayist, and professional delight-seeker. For one year, Gay embarked on a personal challenge: to write an essay every day about something that delighted him. He catalogued these reflections in his 'Book of Delights' - musing on everything from the satisfaction of snapping green beans to the unexpected warmth of being called "honey" by a stranger. Among these gems - and my personal favourite - is his account of carrying a tomato seedling through an airport and how this simple act charmed a chain of bemused smiles from passersby.[8] The 'Book of Delights' is a testament to the power of paying attention, finding beauty in the ordinary, and embracing the richness of life in all its complexity.

In a conversation with Ross Gay, journalist Bim Adewunmi posed the question "what is delight?". Gay emphasised that delight often comes from acknowledging small, joyful experiences, suggesting that noticing and appreciating these moments is crucial. He notes the connection between delight and curiosity, suggesting that part of what makes everyday moments delightful is their unexpected nature. He describes how moments of delight often stem from or lead to connections with others, underscoring a communal aspect.[9]

Reflecting on my own personal 'book of delights,' which exists solely in my mind, I find myself nodding in agreement. So, let's break this down into the essential ingredients:

- **Enjoyment**: Quite simply, delight feels good.

• **Attention:** to the Present: Given the spontaneous nature of delight, it seems that finding it requires a presence of mind and attention to the current moment.
• **Reflection and Gratitude:** The practice of finding delight in the simple things is at the heart of gratitude. It's about recognising and valuing what you often take for granted.
• **Connectedness:** Delight involves fostering a connection with yourself, to others, animals, the natural world or even through cultures.
• **Wonder:** Embracing curiosity and marvelling at the mysteries of the world allows you to find delight in the unexpected.

You can see this model reflected in our collective tendency to be delighted by animals. These creatures, by their very nature, embody the essence of delight—living testaments to the power of presence, spontaneity, and unscripted joy.

Consider Aya, the diva cat of You&Meow café, who would seat herself at exactly the moment and location she desired without a second thought. Each day after closing, I doubt she spent much time wondering whether her behaviour would be considered normal amongst polite company. Animals bring us into the present moment, because that's where they spend their whole lives. They live from one present moment to another, in a state of contentment that reminds us how to be grateful for the simple things in life. Whether it's a dog's excitement over a walk or a cat's contentment curled up in an (inconveniently placed) sunbeam, observing their simple joy is a lesson not only in mindfulness but in gratitude too.

Our bonds with animals, whether they're lifelong companions or fleeting acquaintances met on the street, can create a sense of connection. My most sincere apologies to every dog walker I've ever interrupted in my relentless pursuit of wet-nose-induced delight! If it's any consolation, those brief moments of canine camaraderie serve an important purpose. Even short interactions with animals can reinforce the idea that our lives are interwoven with those of other beings. Part of the joy of delight is being reminded we are tethered to something.

Lastly, animals, in their natural state, embody the essence of delightful unpredictability. They don't ponder the next step; they simply leap, bound, and explore with an infectious enthusiasm that is both delightful and captivating. Their sudden dashes, playful leaps, and impromptu naps capture the spirit of spontaneity and entertain us endlessly.

While animals are perhaps the most widely agreed upon purveyors of delight, they are not the sole proprietors. And if you're one of those rare people who has no interest in furry fellowship (i'll try not to judge), you might be relieved to know that sources of delight are varied and personal. It'll be my job, in the rest of this chapter, to teach you how to find yours.

So, where do you begin?

BREAKING THE CYCLE: DELIGHT OVER DISTRACTION

In your journey toward uncovering delight, it's crucial to remain vigilant. Life, in collusion with your own brain, is skilled at tossing red herrings across your path. These distractions, while seemingly appealing, can lead you to behaviours and outcomes that compound the tougher moments of life, rather than soften them.

At first glance, delight and pleasure seem similar—both are positive emotions that feel good. And, to complicate matters further, they can occasionally coalesce. Not so long ago, I wandered into an unfamiliar cafe and was delighted by an unexpectedly delicious veggie ciabatta. The bread to filling

ratio was so on point, I felt compelled to study it mathematically. The pleasure of enjoying good food, the cosy ambiance of the café, and the surprise of a satisfying veggie ciabatta (veggie ciabattas have traditionally dissatisfied me) all melded together to create a truly delightful experience.

In the venn diagram of delight and pleasure, a surprisingly tasty lunch in a cute cafe sits squarely in the middle. Venture to the other side of that overlap, though, and you risk entering into a spiral of hollow cravings. Perhaps the most common example of this is our reflexive reach toward a pint or a glass of wine at the end of a hard day. No doubt the wine connoisseurs among my readers will be shaking their heads, and to them, I say this: I'm not here to delight-shame anyone. Hedonic pleasures are also a part of the human experience. But there is a real distinction between intentional enjoyment of those pleasures (in careful moderation) and reflexive reliance on them when we are at our lowest.

Despite our natural leaning towards negativity bias, when it comes to processing pain your brain can be like a well-meaning but inadvertently toxic-positive aunt, telling you to look on the bright side after the love of your life eloped with the gardener. It wants to make you feel better, it just doesn't know how. When you're at your lowest, it will guide you to things that promise to lift your spirits with the least possible effort. And those things are usually freighted with consequences that can leave you feeling even worse, like hangovers or addiction.

A behavioural study by Harvard and MIT scientists studied this impulse on a large-scale, by looking at the moods and behaviours of 28,000 smartphone users.[10] The goal was to uncover patterns in how people choose to spend their time, by asking users to log their moods and activities. When feeling bad, participants tended to seek out pleasurable activities to lift

their mood - like watching TV, drinking wine, or ordering an Uber Eats curry.

In contrast, participants who were feeling good gravitated towards useful activities that weren't attached to an immediate mood-boosting payoff, like reading a book or cleaning the kitchen. When we feel ok, we gain flexibility to skip the cheap dopamine hits in favour of less-exciting options that enrich our lives in other ways. It's called 'the hedonic flexibility principle'.

It reveals an uncomfortable truth about human nature: the more drained our emotional cup is, the more likely we are to refill it with things that drain it even more. At the same time, it also signposts the utility of delight in protecting us from those urges.

You can use delight, cunningly, to redirect your brain back to a place of hedonic flexibility. Even the temporary reprieve of an hour spent at a cat cafe can move the needle sufficiently for your brain to start considering a book and a bath over a pint and a pizza. Once again, I'm not here to delight-shame the pizza- and pint-loving patrons among us. In fact, I fit very snugly into that category myself! I have learned, though, that pizza pint evenings are usually better reserved for the moments when I'm not already feeling desperate.

If the smell of a fresh-cut lawn on a summer's day brings you delight, or perhaps you thrill to the sound of waves crashing on a beach, make sure you build time into your weekly schedule to experience such moments. Take the time to pepper your days and weeks with delightful things that don't also have the power to make you feel worse, even if they have to sit amongst pizzas, pints or three-hour TikTok scrolling sessions. If it feels like you're lacking the will to resist temptations you'd genuinely like to minimise, take aim instead at carving out moments of consequence-free delight.

What looks like slacking off could actually be a method to overcome procrastination, undesirable habits, and ennui, by replenishing your brain's need for what seems to be its preferred fuel: feeling good. By circumventing this unfortunate bug in our neural programming - the tendency to crave instant gratification when our spirits are low - we can gradually move in a healthier, happier direction.

So, when the going gets tough and your brain says "TV and wine," often the true answer is to walk the dog or spend time in a gorgeous national park. Your challenge is to hear that call and meet it by drip-feeding your empty emotional cup with little moments that keep it from draining entirely.

In this way, delight can be the buffer between you and your less desirable choices.

THE PITFALLS OF PLEASURE

The work of one American neuroscientist in particular, Kent Berridge, has revealed why pleasure itself is not always a helpful target in our pursuit of feeling good. Berridge's studies go beyond the surface of pleasure to tease apart the subtle differences between wanting something and liking it—a distinction that has profound implications for your journey to delight.

Knowing that dopamine plays a role in reward-seeking, Berridge genetically modified rats to boost their dopamine signalling well above normal baseline.[11] The expectation was that these 'super-dopamine' rodents would indulge in a frenzy of pleasure-seeking, like gourmets at an all-you-can-eat buffet, savouring every food pellet in sight. And that alongside their gluttony, they would also show more signs of enjoyment, like licking their lips.

But there was a plot twist. While the dopamine-enhanced

rats did increase their efforts to obtain more food pellets (the 'wanting'), they actually didn't show any signs of increased pleasure while eating them (the 'liking'). Despite their chemically supercharged brains, they didn't show any more signs of liking their treats than their unaltered cage mates. They wanted more, as evidenced by their increased pursuit, but their enjoyment of the reward didn't align with their amplified dopamine. If you've ever found yourself powering through to the very last scrap of a disappointing bag of fries, even though they failed to impress from the first bite, then you've lived this concept in action.

This groundbreaking finding by Berridge is a crucial piece in the puzzle of human desire. It explains why we can yearn for things—be it food, shopping, or even social media scrolls—without finding lasting satisfaction in them. It's a revelation that reminds us that pleasure-seeking can sometimes lead us astray. We see this exemplified in the cycle of addiction. Over time, addicts continue craving drugs despite deriving less and less gratification.

We tend to want to lump desire and pleasure together, mistakenly assuming that anything that provides us with dopamine will also feel good. But the dopamine is simply there to guide us toward things that might feel good.

It's evolution's bolded trick: threading our brains with circuits and chemistry designed for pleasure-seeking, but cleverly disguising them as paths to pleasure-feeling. Ancestral humans relied on this magic trick to motivate their laborious quest for rare and essential resources. In the modern age, with our supermarkets and fast-food restaurants, it's considerably less helpful.

And so, to the wine connoisseurs and pizza enthusiasts among you, who may still require some convincing: I am not

against pleasure. I ask only that you remain eternally sceptical of wanting and craving in your search for true delight. Because the act of satisfying a desire doesn't necessarily lead to feeling better, and in some cases could leave you feeling worse.

FOCUS POCUS, THE MAGIC OF PAYING ATTENTION

Our internal, chemical compass was calibrated for a world we no longer live in. So, what alternative tools should we use to orient ourselves? If we can't rely on dopamine to guide us toward delight, how do we find it?

The secret, of course, is that it's often hidden in plain sight.

In today's world, being truly present has become a rare gift. We exist in an era that demands our undivided attention, where the clamour of devices, the incessant pings of notifications, and the endless pursuit of productivity keep us perpetually tethered to the next task. Our minds are constantly elsewhere. This continuous pull away from the here and now means that we often sleepwalk through life, ignoring its infinite potential to delight us.

William James, a pioneer in psychology, once noted, "My experience is what I agree to attend to," signalling the power of attention in sculpting our reality.[12] The two of us could sit side by side in the very same idyllic park and yet have entirely different experiences. Where one might be engrossed by dapples of sunlight through trees, the other could be mentally replying to a passive-aggressive Slack message that has long since passed the comeback window (we've all been there). We make these kinds of trade-offs all the time, where the highest bidder for attention brings the least value. In the always-on, 24-hour whirl of the 21st century, we often trade delight for distraction.

Many of us already know we'd benefit from a more mindful

presence in the here and now, even without considering the added delight it might bring. But knowing we should be more present is one thing; pulling it off is another. Consider the paradox of thinking of a red balloon precisely because you've been told not to think about a red balloon or, as is often the case in the real world, the string of emails you vowed to ignore on your days off. Sometimes, the harder we try to block out unwelcome thoughts and distractions, the more resistant they become.[13]

What we need is not just the intention to be more present but a tangible method to anchor us in the now. This is where the concept of 'savouring' steps in, offering a practical way to occupy your mind with constructive, delight-friendly thoughts.[14] To 'savour' is to make a deliberate effort to notice and appreciate the details and pleasures of your current experience. It means you pause, look around and say to yourself or to others: "this is nice."

Imagine two sets of cyclists embarking on an identical trip through the countryside on a gorgeous spring morning. The first group has been instructed to take notice of the delightful things they experience along the way – to 'savour' each sensation, from the warmth of the sun to the charm of watchful cows, to the unexpected thrill of racing a surprisingly competitive butterfly. Meanwhile, the second group has been told simply to complete the ride as quickly as possible.

At the end of the journey, which group do you think found the experience more enjoyable? Given what we know from studies of 'savouring', it's likely that the first group not only derived more immediate pleasure from their day but also solidified this heightened satisfaction into cherished, lasting memories. For some, the mere concept of a spring bike ride will be forever immortalised as something they associate with good

vibes. Like me with Bristol, when they think of bike rides, they'll think of delight.

And if they kept these 'savouring' antics up for long enough, they might even be less susceptible to the grip of depression. Just two weeks of deliberate savouring have been found to reduce depressive symptoms and sadness.[15] And while mindful delight-searching might not rid you of all mental health ails, it can provide you with some sense of relief while you're under their grasp.

Instead of engaging in a futile tug-of-war with your wandering mind, 'savouring' can gently guide your focus towards the richness of your experience. Begin by pausing in any given moment to notice what's going on around you. Is the heater behind your chair shedding its lovely warmth onto you? Is the room echoing with the chuckles of two old lovers, who are sharing a gaze more suited to mischievous teenagers than an elderly couple? To borrow from the 2003 Christmas classic, 'Love Actually': delight "really is all around".

FROM HEAVY TO DELIGHT-HEARTED

This shift in focus and perspective doesn't negate the weight of our hardships but rather introduces a lightness, a buoyancy, that can keep us afloat. It's not a toxic-positive strategy of invalidating your emotions, or an attempt to push unrealistic, constant optimism. We can still acknowledge our full range of emotions whilst cultivating moments where we get a break from them.

Setting goals, optimising productivity, side hustling, and hard work all have their place. Working towards a brighter future is part of building a happy life. But the energy and significance we assign to the hustle is disproportionate to the rewards we gain in return. Even the most successful people in

human history will have gone through things that hurt them so badly, they thought they might never recover. I'm sure most of them did, eventually. And you will too. Whatever happens.

While moments of delight may seem trivial against the backdrop of our stress and struggles, they offer us a vital lifeline to keep us tethered to what matters most: our humanness. Delight is a touchstone that reminds us what we're fighting for when all else seems lost.

As the author Daniel James Brown puts it: "It's not a question of whether you will hurt, or of how much you will hurt; it's a question of what you will do, and how well you will do it, while pain has her wanton way with you."

Since we can't avoid hardship, we need a counterbalance. When life is weighing us down, we need tools in our armoury that hold our heads above water and help us keep breathing. No amount of hustle can distance you from grief and loneliness—or reduce their power to injure your heart.

But moments of delight can. Even if only briefly.

HOW TO: CULTIVATE DELIGHT

Cultivate Delight in the Moment

Embrace savouring as a regular practice, like our cyclists who embarked on their journey with the intention to notice and appreciate the beauty around them. Make it a habit to actively observe your environment and appreciate the details – the patterns of light and shadow, the laughter of someone nearby, or the serendipity of an unexpected, pleasant encounter.

Capture Delight in Retrospect

Start your very own 'Book of Delights' (I also strongly suggest arming yourself with Ross Gay's 'Book of Delights' to inspire your journey). Take a few moments at the end of the day to

reflect on and jot down at least one thing that delighted you that day.

Share Your Delights

Sharing experiences of delight can amplify them. Talk about your delightful moments with friends or family, or share them on social media. This not only spreads joy but also encourages others to notice their own delightful moments. Encourage those around you to participate in a shared 'Book of Delights' where you can collectively celebrate the joys of daily life. Long-term relationship honeys, I'm looking at you!

Seek Out New Sources of Delight

Actively pursue new activities or revisit old hobbies that have brought you joy in the past. Delight often hides in the most familiar of places or in the thrill of a new discovery. Be open to change and novelty, as these are often the seeds from which delight grows. Visit new places, try new foods, or simply change up your routine.

Create Delight for Others

Acts of kindness or creating surprise moments for others can be a powerful way to cultivate delight, both for the giver and receiver. Consider what brings joy to the people in your life and find ways to introduce these elements unexpectedly. It might be as simple as leaving a kind note or as elaborate as organising a surprise event.

Integrate Delight into Your Environment

Personalise your spaces with items that bring you delight, such as plants, artwork, or photographs of fond memories. Design your living and workspaces to encourage delightful experiences, whether it's creating a cosy reading nook or setting up a space for creative projects.

References

1. Kiken, L. G. & Shook, N. J. Looking Up: Mindfulness Increases Positive Judgments and Reduces Negativity Bias. Soc. Psychol. Personal. Sci. 2, 425–431 (2011).
2. Vaish, A., Grossmann, T. & Woodward, A. Not all emotions are created equal: the negativity bias in social-emotional development. Psychol. Bull. 134, 383–403 (2008).
3. Müller-Pinzler, L. et al. Negativity-bias in forming beliefs about own abilities. Sci. Rep. 9, 14416 (2019).
4. Zhe, D., Fang, H. & Yuxiu, S. Expressions of hippocampal mineralocorticoid receptor (MR) and glucocorticoid receptor (GR) in the single-prolonged stress-rats. Acta Histochem. Cytochem. 41, 89–95 (2008).
5. Froger, N. et al. Neurochemical and behavioral alterations in glucocorticoid receptor-impaired transgenic mice after chronic mild stress. J. Neurosci. 24, 2787–2796 (2004).
6. Khan, S. & Khan, R. Chronic stress leads to anxiety and depression. Ann Psychiatry Ment Health (2017).
7. Yaribeygi, H., Panahi, Y., Sahraei, H., Johnston, T. P. & Sahebkar, A. The impact of stress on body function: A review. EXCLI J. 16, 1057–1072 (2017).
8. The Book of Delights, Ross Gay (Coronet; 1st edition (8 Sept. 2020)).
9. 692: The show of delights, This American Life. Available at: https://www.thisamericanlife.org/692/transcript (2020).
10. Taquet, M., Quoidbach, J., de Montjoye, Y.-A., Desseilles, M. & Gross, J. J. Hedonism and the choice of everyday activities. Proc. Natl. Acad. Sci. U. S. A. 113, 9769–9773 (2016).
11. Berridge, K. C. & Valenstein, E. S. What psychological process mediates feeding evoked by electrical stimulation of the lateral hypothalamus? Behav. Neurosci. 105, 3–14 (1991).
12. Spencer, H. The principles of psychology: Vol 1. New York: D. Appleton and Co. (1986).
13. Wegner, D. M., Schneider, D. J., Carter, S. R., 3rd & White, T. L. Paradoxical effects of thought suppression. J. Pers. Soc. Psychol. 53, 5–13 (1987).
14. Hurley, D. B. & Kwon, P. Savoring Helps Most When You Have Little: Interaction Between Savoring the Moment and Uplifts on Positive Affect and Satisfaction with Life. J. Happiness Stud. 14, 1261–1271 (2013).
15. Hurley, D. B. & Kwon, P. Results of a Study to Increase Savoring the Moment: Differential Impact on Positive and Negative Outcomes. J. Happiness Stud. 13, 579–588 (2012).

Me, Myself & Wi-Fi: Keeping It Together Online

"Where is the wisdom we have lost in knowledge?
Where is the knowledge we have lost in information?"
- T.S. Eliot, The Rock

Let's rewind to the late 2000's. It was the era of chunky highlights, side-swept hair and skinny jeans. "I Gotta Feeling" by The Black Eyed Peas flowed relentlessly through the airwaves of car radios and nightclub dance floors. YouTube was finding its feet with Charlie's finger-biting antics, and we all learned how to crank that 'Soulja Boy' from the comfort of our bedrooms. While 'Rickrolling' ambushes threatened us at every click, we traded in our flip phones for the first generation of smartphones. The digital revolution was upon us.

Responses to the question "How has the Internet changed your life?" were a snapshot of a world adjusting to digital possibilities. Reconnecting with long-lost friends, the convenience of online shopping, and exploring new romantic possibilities were common themes. The most common answer, however, was that it changed the way in which we access information.[1] For the first time in human history, we had access to almost all information in existence, with the simple click of a button. This revolution in information access ushered in an era of concerns and scepticism about how the internet affects the way we think. Since then, warnings about our diminishing memory and shrinking attention are commonplace, but are they rooted in reality?[2]

Consider the case of the 2005 Hewlett Packard "Infomania" Study. It suggested that being distracted by an incoming email resulted in a 10-point fall in IQ. 10 points? From an email!? This bold claim caused quite a stir, making headlines in prestigious publications like BBC News , Forbes and The New Scientist. Headlines like "Info-mania' dents IQ more than

marijuana" and "Beware Of 'Infomania" had digital natives quaking in their virtual boots.[3,4,5]

Despite its widespread coverage, the study's methods and full results have never seen the light of day in any scientific publication. Searching for them online will lead you on a dizzying journey of circular reporting where each new article references the one before. Psychologist Glenn Wilson, who was involved in the study, issued a clarifying statement years later in 2010 saying "this 'infomania study' has been the bane of my life. I was hired by H-P for one day to advise on a PR project and had no anticipation of the extent to which it (and my responsibility for it) would get over-hyped in the media."[6]

That a privately-conducted, unpublished study garnered so much media attention is not surprising. That much of the frenzy unfolded online, through media websites and personal blogs is even less surprising, but it is deliciously ironic. The internet warns us about the internet by amplifying unverified and potentially false claims about the internet. Like a hall of mirrors reflecting its own distorted image back on itself, it reveals the true threat of access to information online: lies spread faster and farther than the truth.[7]

The lies we tell online range from the petty to the profound. From the subtle deception of beautifying filters to celebrity-endorsed miracle cures that divert vulnerable people away from legitimate medical advice. Momfluencers carefully curate family photos while fabricated news stories distort public perception with far-reaching political consequences. Genetically-gifted (and often surgically-enhanced) instamodels use false promises of fitness to sell us products that don't work, while pseudo-health experts peddle unproven and often dangerous disinformation that can cost lives. Like Pandora's box, the internet unleashes the worst inclinations of the human

brain. But there is hope.

With the right approach, you can sift through the noise to find genuine value. It's about choosing quality over quantity, depth over distraction. The internet, like any other tool, is defined by its application. It reflects our own choices and intentions back at us. By setting mindful boundaries, you can transform the internet from a source of confusion and conflict into a realm of knowledge, connection, and exploration.

IS THE INTERNET MAKING US DUMB?

Part of the reason the Infomania study gained so much traction despite its lack of scientific rigour is that it tapped into a primal impulse we all share: the fear of the unknown. The brain, arguably more driven by emotion than by logic, is wired to fixate on the things that could potentially harm us. This instinct plays a significant role in the rampant spread of misinformation online.[4-8] By inciting fear or rage, fake news leaves us like deer caught in headlights, frozen and fixated.

The fear that new information technologies will erode our cognitive abilities is not a new one. In Plato's Phaedrus composed around 370 BC, Socrates expresses concerns about the impact of the written word on intelligence and memory:

"This invention, O King, will produce forgetfulness in the souls of those who have learned it, because they will not use their memories; they will trust to the external written characters and not remember of themselves."

In the 19th century, the telegraph was seen as a revolutionary way to communicate over long distances. However, some critics, like philosopher Henry David Thoreau, believed it would lead to superficial communication, encouraging people to focus on quick exchanges rather than deep, thoughtful discourse. The marathon text chats and hefty phone bills from

my teenage years in the 2000s would suggest otherwise!

This pattern of concern has echoed through the ages. Growing up in the early 90s, I was repeatedly told: "TV is rotting your brain!" The modern equivalent is this idea that the internet, smartphones and AI – and the abundance of information they provide us – will make us stupid. Some of those fears are warranted, and others are a continuation of an age-old narrative—scepticism towards new and uncharted intellectual territory.

If nothing else, I'd like to assuage your fears that the mere presence of the internet will liquify your neurons into a swirl of brain soup by some mysterious digital osmosis. Fear-based beliefs are rarely helpful, and often leave us with very few meaningful courses of action to forge ahead with. You can safely use the internet, and your phone. And the whole array of digital swiss army knife tools they bring with them. The question is, how?

There are plenty of studies that draw a link between internet use and changes to attention and memory function, but a closer look at many of these studies reveals that the issue isn't so much 'technology is making you stupid,' but rather 'constant distractions disrupt concentration.'

In my research for this chapter, over and over I saw the study Google Effects on Memory: Cognitive Consequences of Having Information at Our Fingertips[9] cited in other papers as evidence that access to information online directly impacts memory function.[10,11] The findings of this study were described in another paper as "the ability to access information online caused people to become more likely to remember where these facts could be retrieved rather than the facts themselves, indicating that people quickly become reliant on the Internet for information retrieval. "[12]

But the devil is in the details. A closer look at the study design and results tells a slightly different story. You might assume from the title that participants were given either Google or no Google to complete learning and memory tasks. Instead, participants were tested on their ability to find and recall random trivia, which was catalogued into folders on a computer desktop. The researchers observed that for more complex trivia, participants often returned to the desktop folders to retrieve information, which was interpreted as reliance on external sources over internal memory.

But here's where we need to pause and consider context. The human brain is wired to assess the importance and context of information to determine whether it's worthy of holding on to. In a lab setting, faced with the task of navigating trivia, the brain knows this information is low stakes. It's not crucial for survival or immediate utility, so why would the brain prioritise retaining it? The task it's being given is: complete the quiz, get the right answers, use resources available to you to do so. Returning back to sources of information seems like a pretty sensible choice in this endeavour.

We do this in other contexts, too. In a series of work-related memory tests, pairs of office workers with similar expertise were able to memorise words, whether they were relevant to their position or not. But when paired with someone of a very different expertise, workers tended to only remember details pertinent to their own roles, expecting colleagues to remember specifics of theirs.[13]

We offload the burden of remembering when someone else is better suited to the task, another brilliant feature of socially cooperative species! In this way, the internet is like a wise grandmother we call when we want to bake pumpkin pie or mend a dripping tap. We could probably figure it out ourselves,

but we always forget the details. Our resource-limited brains are busy doing the jobs no one else can help us with.

It seems like a leap to assume that our brains would treat all online information the same way they treat random trivia in a lab setting. Real-world information often has more significance—it's tied to our jobs, personal interests, or important life events. If you're scrolling online and you read a headline about Taylor Swift, the likelihood that you're able to recall that information later is directly tied to your level of interest in Taylor Swift. For self-confessed Swifties, the probability of recall is very high. For the unconverted, much lower.

The brain's tendency to forget is a feature not a bug. You have my full permission to offload the bits and pieces of memory storage you don't actually need. Just like you'd rely on your colleagues to remember the names and coffee preferences of their own clients, you can leave it to the internet to catalogue the lifetime filmography of that one actor you're sure you "recognise from somewhere."

Forgetting isn't new to human cognition. It's an innate tool for mental decluttering, like a microscopic Marie Kondo that glides from one synapse to another asking: "does this memory spark joy?". If we didn't forget, all of the brain's computational energy would be used up cataloguing every detail of our lives. We'd lose the magic of human cognition, which is taking the details we do remember and giving them meaning.

Another study along the same theme found that when participants were instructed to search for information online, they were less able to recall the information than when they used printed encyclopaedias.[14] An important variable to consider here though is time: those searching online found the information much faster than those searching encyclopaedias.

Time is important because gathering information quickly can mean holding multiple items in working memory. Think of it like the brain's sketchpad, where we jot down the bits and pieces of information we're using in real time. The caveat is that our working memory capacity is limited.[15] Cramming too much on the page in a short time frame can mean that ideas get muddled and lost. It makes sense that the slow, careful process of searching for information in a book can give working memory a chance to shuffle some information to the next stage of memory processing. It gives your brain time to turn the page and take note of new ideas on a fresh sheet.

The solution then seems simple: when you're gathering information online, slow the process down. Every so often, sit back with a cup of tea and look wistfully into the distance. Stand up from your chair to wiggle around and stretch. Pause your work to press your face into the belly of a nearby cat. Essentially, take breaks that don't require your brain to stay on duty. That last point is crucial. Because we have a tendency to reach for our phones the instant we have some off time[16], which is a bit like taking a break from a marathon to run a few 100-metre sprints. A cell phone break doesn't allow your brain to recharge effectively[17], because you're still subjecting it to screen-based information processing.

Navigating a relentless flow of information comes with a cost. Neurons, the living cells that form your brain's communication network, require oxygen and glucose to function. When they're overworked, you'll feel the weight of fatigue. Constant pressure on working memory - your brain's sketch pad - can push the brain into a state of overload, impairing its ability to process information. Every actor you look up on IMDB, every story you watch on Instagram, every tweet or text message, is competing for resources in your brain.

The memories we offload to the internet are fair game. But the multiple, mostly useless mental tasks we create for ourselves in the process could be causing trouble. Juggling too many tasks simultaneously or gulping down an excessive amount of information in a short span can tax your brain beyond its limits. This state of overload can leave you feeling foggy, stressed out, and with scant reserves for creativity or deep thinking.

In the information age, we worry that the pursuit of knowledge is now too easy. It's a moralistic perspective based on the virtue of hard work, but in reality our brains are working harder than ever, scrambling to keep pace with a rapid fire of non-stop processing. Today, we generate more information than at any other time in human history. It's not that our systems of memory are being neglected; it's that our attention systems are overloaded.

Your brain will do the work of decluttering memory storage for you, selectively forgetting as a built-in method of information triage. But it's up to you to ease the load on attention, by providing occasional moments for it to catch its breath. Do you really need to ask ChatGPT what toenails are made of, or fall down a rabbit hole of never-ending Wikipedia hyperlinks? Is it worth spending the solitary 15 minutes of break time you have swiping left or right on a revolving parade of disembodied faces?

With the entire world just a click away, it's tempting to want to explore every corner of it. Part of the allure of non-stop virtual stimulation comes from our collective disdain for boredom. We'll do anything to avoid it!

So much so, researchers at the University of Virginia found that many of us prefer self-administered electric shocks over boredom.[18] In this study, participants were left alone for 15 minutes with only their thoughts and a button to deliver

shocks. Astonishingly, over half the participants chose to shock themselves, with one outlier self-administering approximately 190 shocks in that period. Yikes! Mister 190 shocks, if you're out there reading, you've come to the right place. Let me teach you how to fall in love with being bored.

Boredom is an important human experience. It nudges us to pick up a guitar and learn new chords, or to read a work of fiction where we meet characters that resonate with us so deeply, we remember them long after the final page is turned. Boredom drives us to venture outdoors for a breath of fresh air, connect with friends for unforgettable adventures, or dive into learning new skills like coding, cooking, knitting, robotics and more! Boredom is a call to action into a realm of activities that enrich our lives and minds. But, sadly, ours is an age when we supplant all of those opportunities for a quick scroll on TikTok. If you catch yourself reflexively scrolling in a moment of boredom, put the phone down. Sit with the boredom and see where it takes you.

SPLIT-SCREEN LIVING

It's hardly surprising to learn that boredom scrolling doesn't actually provide real engagement or fulfil us.[19] It simply plugs the gap for long enough to stop boredom from performing its duty of inspiring action. This is reflected in our tendency toward media multitasking, where we hop from one digital activity to another. Watching TV while scrolling social media is a common example. But that's nothing. We can easily find ourselves in digital juggling acts with three or four simultaneous tasks. We might passively watch a movie on TV while skim reading an article on an iPad, and at the same time intermittently text our friends while mindlessly flicking through Instagram. A multi-front assault on our poor brains.

Our aversion to boredom has us trapped in a ridiculous pantomime of device shuffling that leaves us less satisfied than when we started.

Humans have a natural tendency to seek out stimulation. In many ways, boredom could be considered a modern luxury. In the early days of human history, when our ancestors had to spend most of their days securing food and shelter, life presumably presented few opportunities to be bored. A life of survival means constant stimulation, endlessly completing tasks that are both physically demanding and mentally varied. As a result, we might have developed the capacity for boredom because our evolving brains grew accustomed to a near constant thrum of activity. Another possibility is that boredom provided an evolutionary advantage by propelling ancestral humans into action. Whether exploring to forage edible and medicinal plants, discovering new uses for a stack of rocks, or flirting with a potential mate, constant engagement could have facilitated survival.

In the modern age, we juggle our fair share of endless tasks too. But most of them are a far cry from the tangible, survival-driven activities of the past. Our daily battles are making it through a day of back-to-back Zoom calls, a perpetual cycle of laundry that we really must get around to folding, and remembering to take out the trash - especially after tossing in yet another untouched, wilted bag of salad that'll stink out the kitchen any moment now. We are beholden to a string of mundane, Sisyphean tasks that rarely provide us with any sense of triumph or intellectual fulfilment. All at once, we are paradoxically over- and under-stimulated. And since we are a species that desperately want to be entertained, we compensate by stacking up digital devices on top of each other and scattering our attention across the whole array of glowing screens.

But media multitasking, aside from directing you away from activities that might actually be fulfilling, is at odds with the brain's design. It pressures your systems of attention to do something evolution didn't prepare it for: focus on several things simultaneously.

Attentional systems shape our reality by determining what we attend to and what we filter out. Most of the time, subconscious processes seamlessly decide what information reaches our conscious awareness. This selection is the work of millions of neurons, forming what we call the attentional filter. They operate mostly behind the scenes, quietly determining what details of our daily lives we actually notice. This is why the hum of a refrigerator goes unnoticed or the familiar route to work becomes a blur – your attentional system filters them out.

Like our ability to forget, our capacity to ignore is also a feature not a bug. Without this filter, we'd be paralysed in a state of constant mental fatigue trying to process every detail of our environment. The energy and cognitive costs for the brain would be enormous, leaving little reserves for things like decision-making or idea generation. But you're likely living a micro version of this, by spreading your limited attentional reserves too thin, and existing in a perpetual state of overload. This is often the result of heavy media multitasking: attention becomes scattered and your ability to remember or even understand the information you're guzzling across platforms is diminished.[20] Another twist in our information-rich era: unlimited access to information isn't dulling our wits, but our scattergun approach of hopping from one byte to another might be.

Your brain is built for single-tasking. Even in a work setting, attempting to multitask—splitting your attention between a report, Microsoft Teams, a never-ending email thread, and the occasional TikTok break as a 'reward'—is

counterproductive. Each switch of focus means reorienting your attention to let go of one task and grab hold of another. Your brain has to work harder, each task takes longer, and the final result falls short of your true capabilities.

But it's not about productivity; your mental well-being is at stake. Constantly bombarding yourself with multiple tasks and digital distractions can overwhelm your brain, leading to stress and burnout. Imagine giving your mind the space to breathe, by simply focusing on one thing at a time. You'd be taking a significant step toward safeguarding your mental health. Embrace the power of single-tasking!

Plan B would be reducing the load of the multitask. As humans, our eyes are the main gateway to the world, which gains them preferential treatment from our attentional filter. Since we navigate, learn, and interact primarily through what we see, visual stimuli are the most taxing on our cognitive resources. Dogs, on the other hand, experience the world through their powerful sense of smell. Ever noticed how calling your dog's name does little to distract him from smelling something interesting? That's their attentional filter in action, prioritising smell over sound. So if multitasking is non-negotiable, try to see how many tasks you can remove, paying special attention to anything visual. Cooking with a podcast is gentler for your tired brain than cooking with Netflix.

Aside from its brain-melting properties, media multitasking harbours a second, more insidious side effect: it can make us more vulnerable to misinformation.

HOOK, LINE, AND THINKER

In the early 1970s, long before the internet reshaped our information landscape, psychologists John Keating and Timothy Brock explored the relationship between distraction

and gullibility. They theorised that when people are distracted, they're more likely to accept whatever information is presented to them, regardless of its accuracy.[20] This, they reasoned, could be a tool for positive change. Brimming with optimism, they imagined scenarios where strategic distractions could be used to shift societal attitudes in helpful ways. Ah, the seeds of irony.

To test their theory, Keating and Brock designed an experiment where participants were asked to watch a video suggesting a tuition increase from $200 to $400, while being subjected to varying levels of distraction.[21] Their findings confirmed the hypothesis: distracted participants tended to agree more with the message and were less likely to challenge it with counter-arguments.

Fast forward to the digital era, and these early insights take on even greater relevance. In a similar experiment, researchers at Korea University tested the effects of media multitasking on our ability to think critically about what we're told.[22] Participants were presented with persuasive content on three hot-button social issues in Korea, including freedom of expression online. Those juggling other media tasks showed a reduced ability to spot flaws in the arguments and were less capable of challenging them. It reads like a modern myth, warning of the dangers hidden behind our screen saturated world. Lulled into a stupor of perpetual distraction, we've become complicit in our own deception, defenceless against the tide of online misinformation.

Fake news does more than just mislead; it fundamentally undermines our conscious free will. While our decisions about health and wellbeing aren't always perfect, we deserve the right to make them on a foundation of objective truth. Despite the well-known dangers, many people still consume tobacco, for example. That represents a fair exchange of information and

consent. Our decisions - even the spurious ones - should be our own and not a sleight of hand manipulation freighted with consequences we never fully agreed to.

Every day, you're faced with decisions. Ones that seem straightforward. A product with thousands of shining reviews, a diet change backed by testimonials of miraculous health transformations, maybe it's an investment opportunity, seemingly foolproof, endorsed by expert opinions. Each choice appears clear, grounded in what seems like common sense. It's like a magician's 'choose your hand' trick. We're too bewitched by the illusion of choice to notice the deck has been stacked against us all along.

They're the kind of ill-fated decisions most of us would never even consider if we had all the facts upfront. But passive scrolling through endless streams of content has become second nature, and we do it all with eyes half closed, without full possession of our attentional or cognitive resources. We're leaving the door wide open for charlatans and con artists to walk right in and plant seeds of misinformation that could influence the decisions we make for the rest of our lives.

I'm not suggesting you delete social media and run off to start a new life in a Wi-Fi-free meadow (though you have my full support if you'd like to). But the simple act of paying attention to one thing at a time is a powerful stand against those who benefit from your divided attention. It's a simple yet radical step toward reclaiming your ability to think critically about the lies you're sold online.

This is especially important since emotional responses to fake news happen rapidly and automatically, in ways that surpass our conscious analytical capabilities. Fake news, with its powerful ability to trigger negative emotions, has an unbeatable edge in the fierce competition of the attention

economy. Our social feeds are dominated by emotionally-loaded, often rage-baiting misinformation. And these emotions are eaten up and digested by the brain within 1/250 of a second, an interval so tiny, it may not even consciously register.[23]

That's why we're more likely to watch and share content that contains moral–emotional language [24], which, in plain English, is language that skillfully mixes emotional triggers with our sense of right and wrong. Imagine stumbling upon a headline suggesting a well-known charity is a scam, preying on the vulnerable for profit. The blend of anger and moral outrage prompts a swift, emotional share. Then, a follow-up article surfaces, offering a calm, logical dismantling of the earlier claims, vindicating the charity entirely. Yet, you find yourself hesitant to spread this new information, possibly even doubting its validity. And even if you do accept their innocence, the residue of the initial outrage is already etched into your perception of the charity, leaving a dent in trust that may never be smoothed over. As a result, even with this new information, your behaviour—whether it's which charities you support, or the causes you advocate for—will still be informed by the first emotional imprint.[25]

Even a quick scroll through emotionally loaded social media feeds can affect the way we see the world and make decisions. The real hurdle, however, is that once those emotional hooks are in, they're hard to escape.

And since most of us spend around two and a half hours per day scrolling social media , there are plenty of opportunities for fake news to influence us. As we navigate through waves of posts, memes, and stories, our perceptions and judgments are subtly shaped by every like, share, and comment. With the promise of new, rewarding content just a swipe away, we're magnetically drawn to our devices.

The allure of mindless scrolling or compulsive email checking is down to a fatal flaw in our neural programming. Since social interactions are central to wellbeing, we catalogue them - alongside food or sex - as resources worth foraging for. And to motivate the search, our brains use dopamine signalling, like a carrot on a stick, to guide us to places where we might find them. The trouble is, the brain confuses notifications for social interactions. So, although a brief encounter with an Instagram grammar pedant doesn't actually fulfil any of your social needs, the dopamine will still keep you coming back for more.

THE THRILL OF THE CHASE

We have a tendency to collectively misunderstand dopamine. Its common stage name - The Pleasure Molecule - is somewhat of a misnomer. Or a wildly egregious misnomer, if you're talking to a dopamine specialist (make that mistake at the National Dopamine Convention at your peril)!

Dopamine, like all neurotransmitters, is a messenger. Its job is to carry messages from one neuron to another, hopping over gaps between synapses and posting itself like a little letter into one of the various ports of entry on the other side. This transfer of information provides the receiving neuron with a codebook to follow.

Codebook in tow, that neuron can get to work. It's the beginning of a series of neuronal errands, like opening new message ports if more are needed, waking up genes and asking them to make proteins, or sending synapses to the gym to make them stronger. Some of these jobs are complete within milliseconds, and others might take hours or days to finish. Sometimes the codebook will guide a neuron to do the reverse, like closing ports or slowing down activity. All of this depends

on what you, the brain's human host, are getting up to in your everyday life.

The brain has four major dopamine pathways, each one playing a unique role in responding to our experiences and instructions. When you decide to move your arm, for example, neurons along the nigrostriatal pathway pass dopamine to each other to translate your request into an instruction for the motor cortex: move arm like this. This nigrostriatal pathway can also team up with the mesocortical and mesolimbic pathways to form the brain's reward circuits. The three of them work together to process your experiences, taking notes to remember which places and things might be worth returning to. When you wandered into that hidden café and were greeted by a chocolate cake so rich it could pay off your student loans, they took notes! When you're unselfconsciously singing Bohemian Rhapsody in your car (the high and low parts), they spring into action. It's your brain's attempt at bridging the gap between its mechanics and your behaviour, by signalling you to seek "more of that, please," when you encounter something it thinks could be beneficial to your survival. Your brain is, ultimately, trying to keep you alive. Unfortunately, it doesn't always know how best to do that. So, whether it's the sight of your child's smiling face or the relentless grip of addiction to substances like cocaine, reward pathways will keep you coming back for more.

In the realm of dopamine-driven behaviour, one player reigns supreme: the element of surprise. Consider the morbid allure of a true crime podcast. Part of what makes them so engaging is the rollercoaster of twists, and turns, the disappointing lines of inquiry that trail off to nothing, and the shocking reveals we never saw coming. If the heart of the mystery were laid bare in the first episode, you'd never experience the satisfaction of the final twist, where all the

carefully laid breadcrumbs suddenly click into place. We want to be caught off guard.

This is how the brain feels about potential rewards. Through a mechanism called reward prediction error encoding, the brain controls how excited our dopamine neurons get depending on how aligned our expectations of reward were to the actual reward.[26] Worse than expected? Less dopamine firing. Better? More.

This isn't just academic knowledge; it's been practically applied in places like casinos for decades. Take slot machines, for example. The suspense that builds as the wheels spin is no accident—it's your dopamine neurons kicking into gear, keeping you glued to your seat in anticipation of a win. If too many losses pile up, and your brain's expectations for a tasty reward are subverted for too long, dopamine activity dies down, nudging you to stop playing. Too many wins, and all the excitement of anticipation would evaporate. We'd still keep playing, albeit in a state of dopamine-stable nonchalance, because receiving money is inherently rewarding. But that'd be a considerably less profitable strategy for the casino. That's why casinos meticulously balance wins and losses to keep their banks full and their players hooked.

Social media apps, much like casino slot machines, masterfully harness dopamine-driven anticipation to keep us locked in. In the 1930's, psychologist B.F. Skinner pioneered the idea that rewards are more exciting when they're unpredictable.[27] To test this theory, he trained his lab rats to pull a lever whenever they wanted a delivery of mouth-watering pellets, like a tiny, rodent version of Deliveroo. Not a bad gig for a lab rat, all things considered. You might assume they'd prefer that lever to be a steady source of treats, reliably delivering pellets at every pull. In fact, Skinner found his rats ate more

when it wasn't. Just as a gambler continues to play a slot machine because the next pull could be the win, the rats persistently pressed the lever in case the next push would deliver a food pellet.

Now, transpose that image onto yourself, with your 'lever' being the refresh button on your social media app. Each scroll, swipe or refresh is a quick check to see if the lever is delivering pellets this time. When rewards seem random and checking for them is easy, we develop habitual behaviours to 'stay in the game'. Since we can't change this feature of the brain, or redesign social media apps, all that remains is to make the 'checking' more difficult. You can use technology to fight technology, by downloading apps that lock you out of social media after you've hit a daily usage limit. Delete social media apps periodically to take breaks. When you're with friends or working on a task, put your phone out of reach. The more barriers you can create between you and 'checking', the less likely you are to check.

At least for the rats and gamblers, their sporadic rewards have some value. But what are you getting out of this exchange? Perhaps it's the thrill of seeing that user3472 just replied to your increasingly hostile comment section debate about electric vehicles. Or the rush of receiving a story 'like' from an otherwise coldly ambivalent situationship prospect. You might even be the lucky recipient of a flirtatious bot-generated DM, casually inviting you to click a link or share your credit card details. Ah, yes. The internet. How are we to resist such charms?

KEYBOARD WARFARE

Many of us already know, at least on some level, that even when the lever is delivering pellets, we don't greatly benefit from the exchange. And yet, we can't seem to stop. Not only are we

beholden to the brain's extremely cavalier definition of 'reward', we're also duty-bound to follow it into battle any time it feels remotely besieged. Which, as it turns out, can happen with very little provocation. Even the faintest challenge to our beliefs or identity can trip that hair-trigger and throw us headlong into fight-or-flight mode.

Responding to a string of antagonistic tweets doesn't feel good. Neither does it enrich our lives or minds in ways that make the effort worthwhile. And yet, we're more likely to engage with content online if it gets us heated.[28] The brain drags us into these exchanges, kicking and screaming, because it feels compelled to defend itself against threats, real or imagined.[29] And also because it harbours a dubious appetite for the adrenaline of online skirmishes.[30] It's a feature of human behaviour that carries infinite potential to ruin your day. And for what return?

The irony is that moments or conversations that offer some potential for learning are usually not the ones we gravitate toward. I know very little about electric vehicles, for example. In a debate about their utility, I'm anybodys. If you tell me they're the greatest thing since sliced bread, great! Wonderful. Consider me schooled. Bye now.

But if you try to convince me that cats don't care about human affection, well then I'm rolling up my sleeves for the long haul. I'd be resolute in my position, citing evidence from Gnocchi, my own cat, and his non-stop purr-suit of my attention (he is currently perched on my desk making jealous eyes toward my laptop, FYI). And even if I were arguing with the world's leading cat behaviourist, I'd be very unlikely to change my mind. I have skin in the game. Gnocchi is my pride and joy, and I like to believe I'm the love of his life (or lives, all nine of them). What kind of reality would I be stepping into if

I let myself believe he only valued me for my ability to crack open a tuna can and double as a human radiator?

It's precisely because this issue touches a fundamental part of my identity—my bond with Gnocchi—that I'd be propelled into the debate, ready to defend my stance with all I have. And the cat behaviourist, having spent 15 years building a career around the science of feline aloofness, may be similarly motivated to stand her ground. We'd be stuck at that impasse until one of us finally decided we'd had enough and stopped replying.

Arguing online rarely ends in any kind of resolution[31], because we usually aren't motivated to debate ideas we aren't already attached to. We fight for the sake of the fight and gain nothing in the process.

Worse still, these virtual battles can leave you with a sticky residue of anger that can seep its way into other areas of your life. One minute, you're clapping back at user3472 for not knowing the first thing about battery degradation in Teslas, the next, you're giving your spouse a stern telling off for their inferior dishwasher-loading technique. Anger begets anger. So much so, that even the simple act of scrolling through a fiery exchange of comments can negatively impact your behaviour.[32]

Choose your virtual battles wisely, steering well clear of comment threads or content that get your blood boiling. When you feel a spark of rage pulsing its way to your keyboard-clashing fingers, put the phone down. Count to ten. Perhaps even scream into a nearby pillow. Use whatever zen-inducing tools you have at your disposal to avoid the trap of day-ruining online arguments.

Of course, I'm not suggesting that your opinions should never be challenged, or that we can't find ways to learn from one another. Merely that Facebook is not the appropriate venue

for those efforts.

Your brain, like mine, will staunchly defend whatever feels familiar. And so, if you're ever going to listen to reason or accept a new perspective, the call has to come from inside the house.

THE LUST FOR COMFORT

We have built-in short cuts for processing that can make us wildly illogical. We like to think of ourselves as rational, present readers of reality. In fact, I'm willing to bet that at least half of you are reading this and quietly thinking "this doesn't apply to me." And even more of you are thinking "this is why [insert out group here] believes [insert opinion I don't share]". But the truth is, we are all as vulnerable as each other.

We used to think the "Filter Bubble" was the culprit. Introduced by author and digital activist, Eli Pariser, the Filter Bubble is the idea that search engines and social media, guided by personalisation algorithms, create information echo chambers that gradually filter out opposing ideas[33]. In fact, search and social media users tend to have a more diverse and centrist media diet than non-users.[34,35] The real issue is that once an idea grabs us, even briefly, it becomes hard to shake off. Whether or not we are exposed to opposing ideas is of little relevance, our brain will likely filter them out anyway.

Our cartel of cognitive biases are fairly universal including the aptly named bias bias - where you recognise the influence of biases on other people while underestimating their power over you. Keep that in mind while I explain the anchoring bias, our tendency to cling with iron grip to the first thing we learn about something (even if it's later proved false). Or confirmation bias, the brain's ability to filter out information or evidence that doesn't align with our existing beliefs. A study by Yale Law School exemplified this. It showed that even folks with

strong mathematical skills struggled to solve a problem if the answer contradicted their beliefs about gun control and crime rates.[36] We often describe these kinds of departures from logic as "mental gymnastics". The reality is, this is where the brain is at its most comfortable. Cognitive biases are like a cosy, dog-eared armchair for the brain to snooze in, so it can avoid the terrible, hard work of processing information or updating ingrained neural circuits.

You know what your beliefs and political leanings are. So, next time you catch yourself dismissing ideas that don't fit neatly into that existing structure, take note. When you find yourself struggling to let go of something you learned a long time ago, pause and reflect. This is your lazy brain relaxing back into its armchair, seeking refuge in the worn grooves of familiar thoughts and beliefs.

These moments of reflection won't instantly dismantle your entire structure of beliefs. You won't be radicalised or excommunicated from all that's familiar. Rather, these small continued efforts can gradually refine your understanding of the world, making sure your beliefs stand up to scrutiny and are truly your own.

We'd like to believe we have full control over our thoughts and decisions, but the human brain fails in very predictable ways. Most of our behaviour is reflexive and unplanned, the result of an intricate series of events that have us cornered into a fishbowl of very limited voluntary choices. It's an uncomfortable truth that most of us aren't willing to accept. Usually when I talk about it, I'm met with anger or an abrupt conversational exit. A response to, I think, the feeling of apathy it inspires. "If we aren't in full control, why bother? We're all doomed. Now, pass me my cloak of darkness and close the door on your way out."

Despite confronting you with this wave of existential angst, I'm sure by now you trust me to find the optimism in this predicament and deliver you safely back to a sense of purpose. Let me start the process with Kahlil Gibran's The Prophet, a work of poetry fables and one of the best-selling books of all time. The story begins by introducing us to divine prophet, Al Mustafa, who has lived in the city of Orphalese for 12 years and is about to board the ship that will carry him home. But, before he can leave, he's stopped by the townspeople, each of them hoping to extract one last dose of wisdom with 27 questions about life and the human condition.

Each question is its own chapter, with titles like On Love, On Work, and, my personal favourite, On Houses in which the mason asks Al Mustafa to "Speak to us of Houses." Mustafa's answer invites us to think about the sacrifices we make in the pursuit of comfort, "that stealthy thing that enters the house a guest, and then becomes a host, and then a master." He counsels that humans, by nature, are explorers. But the houses we build, and the spaces we inhabit, can become boundaries that "make puppets" of us and our "larger desires." He cautions against the seduction of luxury and convenience with the warning that "the lust for comfort murders the passion of the soul." Online, our "lust for comfort" reveals itself through the cognitive biases and logical fallacies we cling to when we avoid listening to new perspectives. In doing so, we resign our worlds, and minds, to be caged into the tiny zone of comfort we've drawn around ourselves.

It's a testament to Gibran's wisdom that this work, originally published in 1923, continues to resonate over 100 years later. It's also a reminder that tension between two conflicting impulses is inherent to the human experience. We want adventure, but we crave comfort. We have brains capable of

theorising relativity or dreaming up worlds of hobbits and heroic journeys. Yet, the lure of mindless scrolling often trumps the motivation to create. Our innate curiosity drives us to seek new heights of knowledge. But our ingrained biases often keep our feet firmly, and frustratingly, on the ground. It's a never-ending dance that challenges us to find balance between wonder and reality. And it begins by acknowledging these conflicts without losing heart.

Taking a few seconds to acknowledge when cognitive biases, emotion-laden misinformation, dopamine-hunting, or fear of boredom might be leading you is a powerful first step. The act of contemplating your own thoughts and behaviour is one of the few options that will always be available in your fishbowl of limited free will. And each time you make that choice, you'll be upgraded to a slightly higher quality fishbowl, with a set of options that more accurately reflect the person you aspire to be.

The internet, with its endless streams of content and interaction, isn't going anywhere. Nor should it. It's an incredible tool, but it's time we sharpen our digital wellbeing skills and align our virtual behaviour with who we are and who we aim to be, beyond the screen. Let's curate our digital environments like we do our homes, keeping only what serves us, inspires us, and connects us genuinely with others. It's not about demonising the digital world but about finding a balance that allows you to enjoy the benefits without falling prey to the pitfalls. By choosing where to focus, we reclaim our mental space from the clutches of algorithms designed to keep us hooked

HOW TO: RECLAIM YOUR DIGITAL LIFE

Audit Your Digital Consumption

Start by tracking how much time you spend on different apps and websites. Identify which platforms contribute to your

wellbeing and which ones leave you feeling drained.

Set Defined Online Hours

Allocate specific times of the day for checking social media, emails, and other online activities. Use the rest of your time for offline activities that enrich your life.

Embrace Single-Tasking

Resist the urge to juggle multiple digital tasks. Focus on one task at a time to improve your concentration and reduce stress. Remember, your brain thrives on single-tasking.

Curate Your Feeds

Unfollow accounts that trigger negative emotions or distract you from your goals. Instead, follow pages that inspire and educate, turning your feed into a source of positive stimulation. Regularly reflect on your digital habits and their impact on your life. Be willing to make adjustments as needed to ensure your digital consumption aligns with your values and wellbeing.

Use Technology to Limit Technology

Explore apps that monitor your screen time or block access to certain sites during work hours. Creating digital boundaries can help you focus on what truly matters.

Schedule Tech-Free Zones

Designate tech-free times and areas in your home where digital devices are not allowed. Use these spaces and moments to connect with family, meditate, read, or pursue hobbies.

Rediscover Boredom

Allow yourself to be bored. Boredom can be a powerful catalyst

for creativity, self-reflection, and problem-solving. Resist filling every idle moment with digital content.

Practise Mindful Scrolling

When you do scroll, do it with intention. Be mindful of how each post makes you feel and whether it adds value to your life. If it doesn't, it's time to keep scrolling or log off.

References

1. Colley, A. & Maltby, J. Impact of the Internet on our lives: Male and female personal

perspectives. Comput. Human Behav. 24, 2005–2013 (2008).

2. https://scienceblogs.comretrospectacle/2007/02/27hew tt-packard-infomania-stud

3. http://news.bbc.co.uk/2/hi/uk_news/4471607.stm

4. https://www.newscientist. comarticledn7298-info-mania-dents-iq-more-than-marijuana/

5. https://www.forbes.com/2006/08/11jack-trout-on-marketing-cxjt_0811i nfomaniahtml?sh=51be47120823

6. https://scienceblogs.com/retrospectacle/2007/02/27 hewlett-packard-infomania-stud

7. Vosoughi, S., Roy, D. & Aral, S. The spread of true and false news online. Science 359, 1146–1151 (2018).

8. Han, J., Cha, M. & Lee, W. Anger contributes to the spread of COVID-19 misinformation. HKS

Misinfo Review (2020) doi:10.37016/mr-2020-39.4. Greenstein, M. & Franklin, N. Anger Increases Susceptibility to Misinformation. Exp. Psychol. 67, 202–209 (2020).

9. Sparrow, B., Liu, J. & Wegner, D. M. Google effects on memory: cognitive consequences of having information at our fingertips. Science 333, 776–778 (2011).

10. Kozyreva, A., Lewandowsky, S. & Hertwig, R. Citizens Versus the Internet: Confronting Digital

Challenges With Cognitive Tools. Psychol. Sci. Public Interest 21, 103–156 (2020).

11. Wilmer, H. H., Sherman, L. E. & Chein, J. M. Smartphones and Cognition: A Review of Research Exploring the Links between Mobile Technology Habits and Cognitive Functioning. Front. Psychol. 8, 605 (2017).

12. Firth, J. et al. The 'online brain': how the Internet may be changing our cognition. World Psychiatry 18, 119–129 (2019).

13. Hollingshead, A. B. Perceptions of Expertise and Transactive Memory in Work Relationships. Group Process. Intergroup Relat. 3, 257–267 (2000).

14. Dong, G. & Potenza, M. N. Behavioural and brain responses related to Internet search and memory. Eur. J. Neurosci. 42, 2546–2554 (2015).

15. Ma, W. J., Husain, M. & Bays, P. M. Changing concepts of working memory. Nat. Neurosci. 17, 347–356 (2014).

16. Dora, J., van Hooff, M., Geurts, S., Kompier, M. & Bijleveld, E. Fatigue, boredom and objectively measured smartphone use at work. R Soc Open Sci 8, 201915 (2021).

17. Kang, S. & Kurtzberg, T. R. Reach for your cell phone at your own risk: The cognitive costs of media choice for breaks. J Behav Addict 8, 395–403 (2019).

18. Wilson, T. D. et al. Social psychology. Just think: the challenges of the disengaged mind. Science 345, 75–77 (2014).

19. Jeong, S.-H. & Hwang, Y. Media Multitasking Effects on Cognitive vs. Attitudinal Outcomes: A Meta-Analysis. Hum. Commun. Res. 42, 599–618 (2016).

20. Keating, J. P. & Brock, T. C. A Myth about Distraction: Rather than being a hindrance, distraction may assist in the process of attitude change. Am. Sci. 59, 416–419 (1971).

21. Keating, J. P. & Brock, T. C. Acceptance of persuasion and the inhibition of counterargumentation under various distraction tasks. J. Exp. Soc. Psychol. 10, 301–309 (1974).

22. Jeong, S.-H. & Hwang, Y. Does Multitasking Increase or Decrease Persuasion? Effects of Multitasking on Comprehension and Counterarguing. J. Commun. 62, 571–587 (2012).

23. Winkielman, P. & Zajonc & Norbert Schwarz, R. B. Subliminal Affective Priming Resists Attributional Interventions. Cognition and Emotion 11, 433–465 (1997).

24. Brady, W. J., Wills, J. A., Jost, J. T., Tucker, J. A. & Van Bavel, J.

J. Emotion shapes the diffusion of moralized content in social networks. Proc. Natl. Acad. Sci. U. S. A. 114, 7313–7318 (2017).

25. Swire, B., Berinsky, A. J., Lewandowsky, S. & Ecker, U. K. H. Processing political misinformation: comprehending the Trump phenomenon. R Soc Open Sci 4, 160802 (2017).
26. Sarno, S., de Lafuente, V., Romo, R. & Parga, N. Dopamine reward prediction error signal codes the temporal evaluation of a perceptual decision report. Proc. Natl. Acad. Sci. U. S. A. 114, E10494–E10503 (2017).
27. Skinner, B. F. The Behavior of Organisms. (D. Appleton-Century Company, Incorporated, 1938).
28. Shugars, S. & Beauchamp, N. Why Keep Arguing? Predicting Engagement in Political Conversations Online. Sage Open 9, 2158244019828850 (2019).
29. Chang, L. W., Krosch, A. R. & Cikara, M. Effects of intergroup threat on mind, brain, and behavior. Current Opinion in Psychology 11, 69–73 (2016).
30. Wollebæk, D., Karlsen, R., Steen-Johnsen, K. & Enjolras, B. Anger, Fear, and Echo Chambers: The Emotional Basis for Online Behavior. Social Media + Society 5, 2056305119829859 (2019).
31. Cionea, I. A., Piercy, C. W. & Carpenter, C. J. A profile of arguing behaviors on Facebook. Comput. Human Behav. 76, 438–449 (2017).
32. Cheng, J., Bernstein, M., Danescu-Niculescu-Mizil, C. & Leskovec, J. Anyone Can Become a Troll: Causes of Trolling Behavior in Online Discussions. CSCW Conf Comput Support Coop Work 2017, 1217–1230 (2017).
33. Pariser, E. (2011). The Filter Bubble: What the Internet Is Hiding from You. The Penguin Press
34. Fletcher, R. & Nielsen, R. K. Are News Audiences Increasingly Fragmented? A Cross-National Comparative Analysis of Cross-Platform News Audience Fragmentation and Duplication. J. Commun. 67, 476–498 (2017).

35. Fletcher, R. & Nielsen, R. K. Are people incidentally exposed to news on social media? A comparative analysis. New Media & Society 20, 2450–2468 (2018).
36. Kahan, D. M., Peters, E., Dawson, E. C., & Slovic, P. (2017). Motivated numeracy and enlightened self-government. Behavioural public policy, 1(1), 54-86.