When the Cave Becomes Home

From Mixed Signals to Crossed Wires in the Digital World

Carin-Isabel Knoop
Executive Director at Harvard Business School, Harvard University, Massachusetts, USA.
Co-founder of Human Sustainability Inside Out (HSIO)

Michael Stanley, MD
Tufts Medical Center, Department of Neurology, Division of Neurocognitive, Boston, MA, USA

Antonio Sadarić, PhD
BUFFED Consulting, Zagreb, Croatia

David Evan Morrison III, MD
Clinical Assoc Professor of Psychiatry, Chicago Medical School.
CEO, Morrison Associates, Ltd. Palatine, Illinois, USA

Abstract

This paper explores the intersection of human psychology and advanced technology, focusing on how intelligent and emotive technology influences human behavior and emotional intelligence, and in the process, might impact our ability to show and feel empathy. Based in Alfred Adler's theory of human motivation, we examine how feelings of inferiority — vulnerability, powerlessness, perfectibility, and the need for affiliation — drive our increasing dependence on technology. The human tendency to treat inanimate objects as animate is heightened by the sophisticated communication capabilities of Generative AI (Gen AI), altering our interpersonal dynamics and communication signals. We analyze how this shift impacts empathy, self-centeredness, and impatience, suggesting a need for conscious awareness of technology's limitations to preserve genuine human connections. By conducting a "technology dependency audit," we encourage individuals to reflect on the extent to which their lives are mediated by technology. Ultimately, the paper argues for reclaiming our emotional and practical autonomy from technology to maintain authentic human relationships and emotional well-being.

Keywords: GenAI; empathy; emotional intelligence; social psychology; human-machine interaction; Alfred Adler; social psychology

Key section summaries:

Part I: *Technology has a dual nature, providing immense benefits like global connectivity, access to knowledge, and emotional reassurance. Technology enables us to meet diverse people, visit museums worldwide, and democratize information,*

offering new ways to form relationships and communicate. The cost seems to come from excessive reliance on technology that might lead to negative consequences such as increased self-centeredness, impatience, and a lack of genuine human connections. The constant need for instant gratification and the tendency to form echo chambers online contribute to a decline in empathy and an increase in loneliness. It also makes us more vulnerable to being manipulated by those who use the data we constantly feed the technological machine.]

Part II: *Early chatbots like ELIZA, developed in 1966, mimicked human conversation superficially, and innovations like the Sony Walkman took us out of our immediate surroundings, enabling us to be in multiple places at once. Gen AI is a step function in transforming what humans expect from technology, impacting their own behavior and emotional intelligence as it can automate our responses and create an illusion of understanding. Modern AI tools have taken this further, generating responses that simulate empathy through natural language processing and machine learning. The constant interaction with machines, devoid of real empathy, may lead to a decline in our ability to connect with others on a human level*.

Part III: *Natural Language Processing, affective computing, and machine learning enable machines to mimic human emotional responses and Large Language Models, such as ChatGPT, simulate human-like conversation, enhancing user interactions but lacking genuine emotional understanding. We use these technologies to get things done rapidly and efficient but also substitute for companionship, social needs, and support. As we do so, we become used to speed and avoid feeling our emotions when we communicate. This behavior risks diminishing human empathy and emotional engagement.*

Part IV*: We can hope to regain our humanity by appreciating how our dependence on technology can make us emotionally and practically vulnerable to its failures; by considering the extent to which we are playing into the personal branding game; and observing how these behaviors influence personal and professional relationships can help address avoidant behaviors and improve genuine connections.*

Part V*: Gen AI, if used thoughtfully, reminds us of our human uniqueness. We are also flawed but unlike AI, humans process experiences with emotional and cognitive depth, shaped by genetics and lived experiences. Our humanity is marked by shared experiences like love, pain, and personal growth, which AI cannot replicate. While AI can produce content, it lacks real empathy and emotional experience. Authentic human connections are irreplaceable and vital for sustaining us*.

Introduction

Psychoanalyst Alfred Adler (Adler, 1974) contended that all humans are primarily motivated by social connectedness and strive for superiority or success — both can be propelled by feelings of inferiority. These can be entirely or partly subconscious. The interplay of human motivation and increasingly intelligent and emotive technology is our focus here.

What we need — and have been increasingly seeking from technology — is often driven from four main inferiority feelings: vulnerability (or insecurity), reduction (or powerlessness), enlargement (or perfectibility), and adoption (or affiliation), etc. These might have triggering events that lead to concerns that cause us to make it the life goal to avoid these. What happens when the social interests of humans graft onto a very different set of inputs, outputs, and processes of Artificially-Intelligent products?

The natural 'Pygmalion Reflex' that humans have to treat objects as animate becomes all the more seductive when the lifeless thing can communicate seemingly as well as we can. The nature of the intersubjective experience between author, text, and reader changes substantially when the text is also the author and we the listener are being read by the text as much as we are reading it. But will we recognize it, or be seduced by the artful verisimilitude?

In shifting our responses to this new way of solving problems and completing tasks, how can we safeguard our repertoire of interacting and communicating humanely with others depends on keeping ever-before us what, and not who, is assisting us in our tasks.

This paper explores how neuroscience and psychology can help us understand the complex steps in the human-technology duet – the noisy call-and-response of our neurotransmitters — and how we can aim to regain first-chair in the orchestra of organizational psychology that now includes artificial intelligences. We consider how to become aware of how being constantly catered to by technology affects our disposition, making us more self-centered, categorical, and impatient. We also suggest ways to perform a "technology dependency audit" to reflect on how much of our worlds and activities and increasingly emotions are mediated, create, and amplified by technology — and the extend to wish we become avatars in our own digital game of life.

Finally, we hold hope that considering that the limitations of Gen AI will remind us of our own. Like the Large Language Models, humans are fed content (situations, circumstances, affordances), expectations, social norms), use insufficient algorithms (social norms, expectations, salience to drives and goals) to achieve valued ends

initially developed from our genetics and repurposed through our cultural milieu, to generate content that is action-focused. Sometimes we are right, sometimes we are wrong, but our approximations and estimations of both what to do and how well we do are always biased. What happens to our sense of agency and kinds of actions when the additional restriction and direction of Gen AIs choices offered to us or evaluation of our efforts becomes not just second nature, but primary approach?

Engaging in these reflections — and bring in brain science for illumination — offers us hope to retake control of the dance we have been engaged in with technology for decades. If can still free ourselves from the strings of the master technology puppeteer, perhaps we can regain our footing, regain the lead in the digital dance, and ask each other to dance again.

Part I: The Digital Dilemma: Magic of Digital Connectivity vs the Isolation of Digital Dependence

We use technology rationally to make our lives better.

Most human endeavors stem from avoiding pain, securing stability, maximizing rewards, and connecting to each others'. Much of consumer-facing technology focuses on making human endeavors easier — applying for jobs, finding a mate, or going on journeys, sometimes literally but often figuratively, *via* endless, tailored, always available entertainment and escape. In many ways, they have done this beautifully.

In the current criticism of how much damage technology and social media might impose on young people and society, let us keep sight of the magical possibilities connected technologies afford humanity. The access technology gives us to the world, and the way it can connect strangers should not be discounted — and should be thoughtfully supported.

For instance, platforms enable us to connect with and learn about people we would not cross and who might be out of our social circles and have common interests. They can promote accessibility and diversity versus proximity and uniformity. We can visit any museum in the world – for free. Not just the one around the corner for 12 euros per person. Technology has also promoted greater democratization of knowledge, just like this publication, and made it possible for the world's population with internet access to view all the wonders of the world and learn from the most significant sources of knowledge.

In the emotional context, technology can also enable us to know more about others before meeting them, which can provide reassurance — and they also make us think harder about our preferences in what we seek in friendships and relationships because they give us choices online in ways that would have been impossible geographically. We

can neutrally decide who might fit the criteria and with whom we might share values, hobbies, and dislikes, and not pair up via primal attraction or temporal desperation.

Finally, technology expands our communication repertoire. Those who suffer from social anxiety may not come across well in person at first, and so get dismissed. Others need a better reading of non-verbal cues but can better maneuver on purely texting or audio terms of engagement. Technology enables a form of asynchronous communication possible that can feel less stressful — and hence so attractive — to many.

We are and let ourselves be used by technology irrationally, making our lives, communities, and societies worse.

The tipping point comes when we move from what we can consider being rational, even more, intellectual desires – seeking knowledge, having friends — to more primal reactions — dominating, being right, favoring our closest tribes, and excluding others. Weaponizing the digital space can make a no man's land of our psychological space, as we gamify our instinctual button-pushing for consumer products can have devastating effects when applied to politics, romance, religion — anything that demands relationality.

A direct channel to our emotions and decisions.

Technological solutions emerged to cater to our needs, two prominent ones being managing and expressing emotions like anger, fear, sadness, disgust, contempt, happiness, and surprise. Emotions are key selective factors in our psychology, fueling our motivation and funneling our actions. If physical pain redirects attention to potential damage, emotional pain redirects attention to potential dangers. Emotions screen our memory, turning events into experience when information is filtered for its risk/reward salience by a specific emotional register.

Through habituation we cease to realize how technology seems to provide instantaneous reactions. Tor Nørretranders argued in *The User Illusion: Cutting Consciousness Down to Size* (Nørretranders, 1999) that much of what we consider conscious decision-making could be subconscious processes influenced by both sensory inputs and internal processing. In other words — we think we know what's going on, but in reality, our subconscious minds are constantly in a state of "dumbing things down" for our conscious minds — yes/no, right/wrong, up/down, left/right.

Just as our brains put subconsciously or delegate certain activities to an autonomic fight-or-flight system of autopilot for many essential functions so that we don't have to actively think-through bedroom and bathroom tasks, technology unclutters our cognitive workspace in a more or less automatic way, leaving more bandwidth for

complex intellectual activities. These shortcuts help us make it through our duties and daily interactions, and are the need for such shortcuts inspire many technological advances.

A response to our needs — and desires.

Early, successful technology companies sought to fill fundamental needs — to know (Google), be heard, notify, educate, and manipulate (Twitter), belong and share (WeWork or Facebook), consume (Amazon) be entertained and moved (Netflix), and be reassured that your car is on the way, that you are safe, and that you won't awkwardly have to tip (Uber). Many of these also obviate the need for friends to give you a ride, bring you dinner when you are ill, or entertain you at dinner parties. But it is these small interpersonal actions that make a big difference in sustaining relationships — and they are all actions, rather than correspondence. This kind of complex interaction that solicits many communication pathways is something that AI cannot do, but can only simulate in a digital sphere. This makes a thumbs-up synonymous with truly 'liking' something. The danger can be in mistaking a signaling in a digital world as a valuable accomplishment, instead of an action in the real world. In the moment, in our heads, it can feel the same, though in the final analysis, the consequences are quite different.

Other digital products and services cater to desires — food, sex, products, and services — and invade our everyday lives *via* apps on our phones to be ready to serve. They are always there when we need them at the expense of being where we don't want them — rooting around our digitized selves. We accept manipulation of our thought without (much) complaint or compromise — at least of an enduring nature. Cambridge Analytica was not the end of Facebook — *au contraire*. It was only a (temporary) symptom of a much larger disease, with little long-term consequence for now Meta. Everything is for sale, even the trajectory of our minds.

No please and thank yous needed.

Another Faustian bargain we have made for access to worldly pleasures and boundless knowledge is the social graces and reciprocity that have undergirded much of contemporary social existence — and the *quid pro quo* or exchange. When we interact with technology, there is only taking on our part, at least on the surface, for much more is taken from us beyond our data and most personal proclivities. Because technology is not sentient, we don't need to treat it with respect and empathy. We use the products and services on demand, no need for politeness or social graces. Unlike our human companions, technological services (from platforms to GernAI chatbots) don't sleep or have bad days or are distracted when we need them. They give us what we want when we want it — making us ever more impatient and demanding, and our behaviors bleed into "real life."

On other social media, we can feel smug in our judgments without any growth. In the analog world, we were usually a few sentences before learning about someone's religious or political leanings. Now, we use these as exclusionary criteria to filter out potential conflicts and filter in potential consensus (even when what makes an idea better is testing-it against the thoughts and actions of others). This further consolidating the walls of our echo chambers. We are neither looking nor listening to anything or anyone nearby as we increasingly inhabit a virtual world of distortions.

Not only that, but we constantly push "pain" buttons — on our phones, in ourselves, and in each other. Could it be that in this digital, disembodied age, we are succumbing to another significant driver of primal human behavior — the desire to be right at all costs and to get what we want when we want it with minimal effort and consequences?

The brain on remote control: Influence at a distance

Global but tribal.

As discussed, we now feel that we can control our world *via* a remote (the phone), and the phone, in turn, controls us. The processes behind sustained use are usually an interplay of the push and pull of our brain systems — we seek the rewards (the carrot) of having what we want when we want it, but we also want to avoid the pain (the stick) of feeling left out, wrong, or not a member of our tribes. As a result, people talk to others online who are emotionally, cognitively, demographically, philosophically, and politically alike. And platforms can realize more engagement through acrimony than advancement, which allows rage to stoke the fear, which consolidates the tribalism, which deepens the isolation[1], which pays the platform bills or creates the content that pays the bills. *Our sensory inputs have increased well beyond the cognitive systems evolved to process them. Processing much more information in less time is like running a factory or production line constantly past the red line of peak load — leading to expected results.*

Together but alone.

Our digital dependency is fueling a loneliness epidemic (Donavan & Blazer, 2020). When technology accelerates and flattens interactions, the engine of empathy can sputter because humans retrain their responses to artificial intelligences instead of their native and natural lens. The essence of most consumer-facing technology is convenience, speed, and self-gratification. Being empathetic — especially in times of high stress that is our contemporary theater — is usually anything but. It takes patience, time, and humility — basically, everything that technology has not trained us to do.

[1] https://www.theatlantic.com/magazine/archive/2019/01/charles-duhigg-american-anger/576424/

When things go wrong, we can turn to TikTok, where we can easily outsource and crowdsource empathy and compassion with and from strangers who make sense of the world from the same predictive-texted vital terms on a search engine that we do. Our virtual interactions simulate a sense of belonging and togetherness, although they effectively leave us feeling empty because the tally of friends in an account does not account for the drop in interpersonal interactions that are actually face-to-face. In addition, living in an increasingly virtual world of artificial oversaturation can provoke an array of unhelpful and unproductive states like general malaise, loneliness, and anxiety, making us responsive to challenges in maladaptive ways. Instant gratification is fleeting, virtual acquaintances are volatile, and instant judgment enables us to opine, approve, or discard in milliseconds.

When we emerge from our digital caves trying to find truth and connect with others, we are not only blinded but also agitated — people do not respond like machines; they don't always do what we want. How can we manage and love humans who do not have up-and-down votes or emoticons attached to their hearts and minds? Humans cannot be turned off, put in a pocket with notifications off.

Like the original characters of Plato's parable, reality felt more real in the cave; the forms were sharper cast as shadows for our dim eyes to perceive. The desire to retreat away from the light back into the case was strong. Theoretically, that would be possible, as humans had not been fundamentally transformed — they had adapted.

Part II: The Digital Predicament: The Illusion of Understanding

The Path to Dependence: Personalizing machines to automate humans

The march to technological dependence and human disconnectedness has been steady. In 1979, the first model of the Sony Walkman, the TPS-L2, came out, and we began to experience disconnecting from our surroundings. Importantly, it also disconnected the intention of the music's chosen environment and permitted listeners to listen to a march while sitting, for example.

A seemingly practical way to enjoy music replaced some of our previous human interactions, and because of music's prominent role in significant life and cultural events, we developed an interpersonal tin-ear in public spaces for the easy exchange of ideas as well as pleasantries — of getting used to 'the other' when in your life. Many locations command attention visually rather than sonically (church bells and town clocks being noticeable exceptions). What you listen to is dictated to you in environmental terms, but with a Walkman, that relationship is inverted at first (you chose the music, the mood, and your intentions on how to use that space). However, as the algorithms get to know your preferences, they ossify rather than expand your tests and keep you on predictable grounds.

Another example of pleasure on demand is porn, a force behind the popularization of the internet. The near instantaneous and visual access to objects of desire changed our ability to interact with humans (Kirby, 2021) in the flesh, accept their imperfections, and put in the work to find, seduce, and retain them.

With our libido captured, smartphones took our gaze away in the 2000s, and then we blended reality and fantasy. By March 2016, came Oculus Rift and Virtual Reality, and the recent Metaverse hype gave some of us old enough to remember Second Life a real sense of *déjà vu.*

Meanwhile, we worked to separate from our First Life. Omnipresent by 2018, growing at 64%+ year-on-year, they robbed us of our surroundings and constantly disconnected us from two senses. Apple's recent ad for its Airpods is "Quiet the Noise" and idealizes isolation and distancing with dramatic CGI-enhanced motions pushing other humans away. We are furthest from those closest to us at any given time. And seemingly, most of the time. But, we have a fantasy world at the tip of our fingers, accessible on demand. "On-the-go" services built for an "on-the-go" and "right here right now" mindset and lifestyle. We become responders rather than reactors.

We crave interaction and a constant stream of wildly varied examples of predictable rewards and reactions. And whether swiping in dating apps or scrolling for news, the feeling of hunting and gathering in our hands is a trick being played — because in fact that information is materializing right on our fingertips. It couldn't be safer and more predictable, and neither can we at some point to stay on these platforms at all costs.

Adding the Emotional Dimension: Training bots to ask "Why do you feel sad?"

The first program to mimic or offer a possible "conversation" between a machine and a human was developed nearly 60 years ago. ELIZA (evoking the fictional Eliza Doolittle in George Bernard Shaw's 1913 play Pygmalion) was born in 1966. It was the brainchild of a computer scientist at the Massachusetts Institute of Technology, Joseph Weizenbaum, in 1964.

He modeled the bot to operate like a "person-centered" psychotherapist, who would mirror back what the "patient" said. If the person said, "I feel sad," Eliza would respond, "Why do you feel sad?" Ironically, it is said that Weizenbaum's goal for the bot was not to be a blueprint for the world we now inhabit but to show the superficiality of human communication[2]

Up to a decade ago, clumsy chatbots amused us, like Cleverbot. We have been turning to Google searches, online forums, and social media for advice that we used to seek from friends. We got the answer but didn't get the emotional aspect of the interaction.

[2] https://www.theguardian.com/technology/2023/mar/16/the-stupidity-of-ai-artificial-intelligence-dall-e-chatgpt

We had to interpret it. By 2019, journalists in the popular press started to wonder: Can talking to a bot help you feel better?[3]

From digital to human transformation.

The advent and rapid adoption of GenAI across consumers around the world is a step forward towards not just digital transformation but, in the process, human transformation. To push the cave analogy, this will make it even harder to exit – not just because the cave has become even more hospitable, but also because we might be in the process of losing some basic societal survival skills. ChatGPT and GenAI are technological solutions that don't just cater to managing and expressing emotions like anger, fear, sadness, disgust, contempt, happiness, and surprise. They replace and automate them for us.

Historically, industrial and technological revolutions have been about the automation of processes. So far, they have been primarily manual. The rapid evolution of Gen AI and interactive technology makes this revolution (and potential dissolution) different – not just social but also neurological.

While other revolutions placed a wall between one's hands and the product, this development does not just get into our minds[4]- it begins to operate as an outsourcing of our minds, shortcutting our mental efforts, similar to how the production line limited the thinking behind producing a product from its entirety to one tedious, monotonous step. With so much to do, human psychology survives on keeping most of its activity under our radar in the subconscious, with instances of incongruence between expectation and experience rising up for us to take notice.

Evolving in a disintermediated world.

The more we outsource our surveillance and our matching between expectation and experience to technologies that can offer us briefer and simpler choices to consider, the more we take these blips as all there is to do, and all there is to experience. Decisions that once were minute registrations can become ordeals because we have atrophied the prioritization and sizing of our experiences to the choices served up to us by technologies that have done the reformatting for us. We do not learn from direct experience any longer, but only from the indirect possibilities afforded to us by the options given us by an algorithm.

Automating intelligence will not just cause humans to adapt and change their behaviors; it has the potential to fundamentally transform to such an extent that there would have no desire or possibility to leave our digital caves secure with their symbols

[3] https://www.fastcompany.com/90299135/mental-health-crisis-robots-chatbots-listeners

[4] https://www.washingtonpost.com/opinions/2024/01/05/what-it-means-be-alive/

that seem to exert influence with the least amount of action on our part and the most immediate responses. To immerse ourselves in the messy and demanding series of personal interactions with its broader range of stimuli for us to self-interpret unaided, would be as overwhelming as Plato's cave dwellers disposition to the sun. In the rare advent that we might, no sustainable and sustained way back to the sunny side.

The Existential Technological Question: If I am talking to a bot, what does that make me?

We are no longer strangers to bots commenting on social media posts, engaging in fraud or repetitive work (e.g., LinkedIn Gurus exploiting the commenting function with automated bot activity to drive engagement to their posts and normal users constantly being prompted to use AI instead of sharing their own thoughts and voice). The results are artificially generated comments that nudge content that is not interesting to broader audiences, resulting in lower overall user engagement.

The realism of the avatars and other tech has led to a pervasive fear of deep fakes. Particularly interesting is the notion of having an online conversation with a deepfake AI animated visual, reproducing AI-generated content rich with empathy. The simulation of interacting with the perfect human. We are coming to the original vision of Weizenbaum.

Now we can even create "real fakes," ourselves in the form of digital twins of ourselves. We create our own imaginary friends and emotional echo chamber by uploading diaries and letters, for example. In healthcare, a digital twin of a patient could help us customize the diagnosis and treatment as part of the future of personalized medicine. In manufacturing, a factory's digital twin enables us to test things online before implementing them on the factory floor.

With ChatGPT, we can run scenarios by ourselves, even creating several characters participating in the conversation. We can have virtual coffee with ourselves. And thanks to Only Virtual, we can defy loss by uploading personal communications with the person we mourn and continue to "converse" with a chatbot that mimics voices and relational behaviors.

Now, for some, ChatGPT can perform as a butler, an executive assistant or co-pilot, a junior associate, an imaginary friend, and even a trusted confidante. Some people seek friendship in a chatbot that they can program to fit their perfect ideal of a human companion. A chatbot never gets agitated at a disgruntled customer and predictably responds to what the person is going through based on analyses of the entered text or pitch of voice. The bots also do our dirty work for us, and so, it's getting the training on its systems for sentiment while ours remain unoccupied and untrained:

- "Write me a kind email to apologize to an angry client." DONE!

- "Write a note to my report explaining why they didn't get a raise." DONE!
- "Write a condolence email to a colleague who just lost her son." DONE!

But ChatGPT and others cannot know a customer or report, nor what they value, and using Gen AI for such communication enables you to be the exact opposite of empathetic — in fast, totally devoid of any connection to the recipient's history and potential feelings. Not feeling the awkwardness and pain of someone's loss robs us from our humanity. So does receiving a condolence email that was clearly not written by a human who cared enough about your loss robs you of your own.

When a chatbot says, "I am sorry," we know it does not feel sorry in any real sense and cannot be sentient. We might *know it,* but we don't always *feel* it, because our desire to be heard and seen feels satiated by words coming from something that isn't in our own heads. Whereas it used to be enough to see oneself in the books we read or the songs we listen to, more powerful is a book that responds to us uniquely and a song that knows what I'm going to say before I even think it. It appears to listen to us better than any human could, but what it's really doing is just responding to cues we emit and making an estimation on what to do next in order to keep its algorithm running till whatever pre-programmed conclusion is met (whether that's by the hour, by the dollar, by the click, or by the teardrop).

Part III: Risking our Human Superpower: Empathy Entropy

As these interactions take over large swaths of our lives, the brain's emotional centers might atrophy. We are so responsive in other cases, like why good-old-fashioned learning of city streets for the taxi driver test in London grew the memory centers of their brains (Maguire, Gadian, Johnsrude, Frackowiak & Frith, 2000); reliance on GPS can shrink those centers (Dahmani, & Bohbot, 2020). What apps will shrink key nodes in the brain that give rise to empathy?

While artificial empathy is a work in progress and probably will never be able to replace human-to-human level empathy, the change in relationality human-robot interactions will change the outcomes of the intersubjective relationship between correspondents and their correspondence itself. Robots with simulated empathy capabilities are being developed for social interaction, such as companion robots for the elderly or individuals with special needs[5]. These robots can recognize and respond to actions signaling our emotions, providing what we need to inspire a sense of companionship. A more dystopian perspective rapidly emerged, with sex robots integrated with "empathy" modules designed to simulate human interactions (Belk, 2022).

[5] https://vibrantaginginsider.com/technology/companion-robots-for-seniors/

Artificial empathy refers to the ability of artificial intelligence systems or machines to recognize, understand, and respond to human emotions in a way that simulates empathy (Asada, 2015). It involves various technologies, such as natural language processing, affective computing, and machine learning algorithms, to enable machines to interpret emotional cues and generate appropriate responses. In other words, it creates the perfect conversationalist, or for example, salesforce.

The effectiveness of artificial empathy in addressing human needs can vary depending on several factors, including the specific application, the quality of the system's algorithms, and the user's expectations and preferences. While artificial empathy systems can simulate empathy by analyzing emotional cues and generating appropriate responses, they lack genuine emotional understanding or subjective experience.

Drawing parallels with artificial empathy, artificial compassion could be perceived as AI systems' simulation or emulation of compassionate responses. It would involve using technologies to recognize and interpret emotional cues, generate appropriate responses, and convey a sense of caring and support. By default, an AI Chatbot would be designed to address the person engaging in the conversation with a repertoire of response styles and strategies typical of those observed in human to human interactions.. However, this "caregiving" doesn't arise from reaching out of its own personal story in order to meet the person before it by "feelings its way" from its sense of itself to the sense of the conversant, creating a relational space for "us." It follows the specific input it has been tuned to and processes it accordingly. The conversant is doing nothing more than talking to themselves with assistance.

While artificial empathy systems could simulate compassion through predefined rules and algorithms, they would be lacking the deep emotional understanding, moral values, and ethical considerations, and backstory that so far underpins a genuine human compassion originating from the context of two lives meeting each other. Artificial empathy atrophies the typical responses to bodies and grows a repertoire of responses to bots. We start to develop affection or emotions towards non-sentient beings, while treating sentient beings — fellow humans — as machines not worthy of kindness and consideration.

Part IV: A Path Out of the Cave?

The case can be made that the more we retreat into this synthetic bubble of technology, the harder it will be to return to the real world, particularly to the world of real people. Beyond individual neurons and more modularized brain regions, there are also key distributed networks in the brain. There is a salience network to detect and direct rewards and non-rewards to be found. There is a default mode network that seems most active when we are least active in external demands (and perhaps more

inwardly directed), and a central executive network to mitigate the many parallel and sequential cognitive apparatuses so as to execute effectively and efficiently on our goals. The default mode network (Nasrallah, 2023) has its role to play in daydreaming and aesthetic experience (the awe and a-ha moments). It can be considered a kind of restorative network

If we become addicted to social media and habituated to the overstimulating drive to scroll and search while outsourcing our focus to the sleight of hand that AI plays in curating our references, we are risk of the same negative traits faced by other addicts. In this special case, what we have become intolerant of is the real world's rhythms and reactions, and we become increasingly unable to contend with the real world.

The essence of most consumer-facing technology is convenience, speed, and self-gratification. Being empathetic — especially in times of high stress that is our contemporary theater — is usually anything but. It takes patience, time, and humility — basically, everything that technology has not trained us to do.

Now we are like the proverbial frogs wondering if we can still jump out of the technological boiling pot. Many of us gave up smoking when we realized its dangers. Many more tried the "Dry January" fad this year to do without alcohol for a month. Will we have the same courage and break our dependence on machines to soothe our needs, calm our fears, and turn instead to each other? We have a choice to look up from our screens and engage the scene before us.

How do we exercise our empathy muscle and adjust our mindset:

Exercise: Control your closet egomaniac

Question: Might being constantly being catered to by technology make you more self-centered and impatient?

A core requirement for being empathetic is to contain our ego and resist the temptation to feel superior to someone not handling things as you would. Our ego is not the only one in the room. It is essential to stay curious about this person but also about life. Some things are unique about this person and their life circumstances that may be shaping their behavior and feelings about it. Recognize what might be reasonable to the other and be open and creative. Employees and managers often feel they must be at odds as interests diverge. What about this experience makes sense to you, and what do I need to know?

In addition, we need to curtail our tendency to know better about how things should be going. Life does not follow a script, neither in our hearts nor at home or work. We must embrace our humility and remain polite and kind even when we might not feel like it and even if the employee is disengaged, angry, or agitated. This requires

patience in times of high stress. We seek closure and don't have time, so we rush to find solutions.

Action idea: Next time you find yourself in a challenging situation, pause to reflect on what got everyone there. Humans do not have up and down votes or emoticons attached to their hearts and minds. Notice when your complexity is being translated into a binary code of decisions, and where possible, avoid it and substitute a free response that's yours.

Exercise: Do look up: Leaning in vs leaning out

Question: How often do you turn to your phone to avoid strangers but also your friends, family, and colleagues?

Phones, just as packs of cigarettes, or now vapes, can both be sources of comfort but also an addiction that enables us to escape ourselves for just a little bit. They assuage our need to hold something in our hands when we are bored or feel awkward in public. They fit neatly in our pockets, where we can touch them for reassurance. Both smoking and checking our phones can be sources of dopamine. And while cigarettes affect our physical health, mobile phones are increasingly blamed for impairing our mental health and have moved way beyond their original purpose, the old-fashioned phone call.

For decades, we have progressively disconnected from people nearby and our surroundings. Unlike the cigarette ritual where one "bums a smoke" or offers "light" to a fellow smoker in need, our phones exclude us from this human interaction. Unlike a peace pipe that brings us closer, phones make us lean back emotionally. They make us lean forward physically, arching our backs like elders who cannot loop up anymore, backs rounded on the way to kyphosis.

Action idea: Catch yourself next time you reach for the escape hatch and drug in your pocket. Examine why you are doing it — to avoid boredom, hide social awkwardness, kill time, or bridge insomnia. Then spend the time you might have spent scrolling "feeling those feelings," sussing out potential origins, and thinking about alternative "solutions."

Exercise: Perform a dependency audit

Question: What fraction of your world is mediated by technology?

As we wrote above, more and more of our lives are now online. We are even using phones to track who is at the office and when because we are never without them, even in the bathroom. But when the power shuts off, or we find ourselves in an internet dead zone, we experience a dramatic shift in the register of our emotions

and the repertoire of our actions. The last-minute optimization of which engagement to cancel and which friend to join breaks down and you must settle, often in advance, of what the plan will be, or else leave it to serendipity. For some that's a chance for adventure, for others a source of anxiety. For many of us, the decision is made in our hands before it makes it to our heads. It can be dizzying to slow down those decisions because we've become unused to the steps of these processes, and the cumbersome nature increases our anxiety or even puts us off altogether from engaging in them.

Action idea: List everything you have outsourced to technology, social media platforms, and apps. To what extent would your life be impacted if electricity were to fail tomorrow? Are you safe emotionally and intellectually as well as physically if you're left off the grid for good? If not, what steps do you need to secure more fail-safe mechanisms?

Exercise: Shed your avatar skin

Question: What fraction of your presentation is a life of pretense?

Over the past few years, we have increasingly outsourced love, support, and empathy. Dating apps are projected to grow nearly 8% from 2023 to 2030.[6] Smartphones, connectivity, and accessibility drive this nearly $800 million industry and its peers. A new language around dating points to the behaviors it enables and perhaps encourages: dropping out of conversation or relationships without explanation nor closure (ghosting); presenting differently than reality (catfishing with photos and now with Gen AI generated chat content); or stringing someone for the power-trip or as potential backups (bread-crumbing and bench-warming).

At showtime, individuals must pretend to be the person they presented as online, often resulting in brief encounters and disappointment.[7] No problem, modern relationships are like modern technology — easily replaceable. Instead of investing time in relationship development, people turn to the abundance of users on dating apps in search of an alternate ideal.

Action idea: Whether or not you are using these apps, observe if they might be shaping you or your employees and colleagues. If we are trained to end conversations online unilaterally, we might find it harder to have difficult conversations in person. When we ghost people, we get fired by text message.

I ChatGPT, therefore… I am not?

Despite all the concerns about the impacts of Gen AI, if we use it thoughtfully, it can remind us that we are the original ChatGPT. We take inputs, use potentially flawed

[6] https://www.grandviewresearch.com/industry-analysis/online-dating-application-market-report

[7] https://www.bbc.com/worklife/article/20220505-why-people-behave-badly-on-dating-apps

algorithms developed from our genetics and lived experiences to sort and repurpose them, and, depending on our cognitive capacity, generate content at a particular speed. Sometimes accurate, sometimes we might as well be "hallucinating" like ChatGPT.

The more conscious we are of GenAI's limitations, the better we can listen and manage. We can distinguish the problem from the process.

What distinguishes us from GenAI is our humanity: our shared origin, development, context. Throughout our lifetimes, like many other humans around our age, we have taken our first breath and likely tasted hot chili peppers, been attracted to other people, repulsed by rotten food, skinned a knee, been bitten by a dog (and many cats), had sex, went through puberty, been at death's door, wept at the loss of people we loved, and had a headache. It is about being a self among so many others, with so much in common, across our lifetime and across lifetimes. It is finding yourself nowhere else on earth, yet seeing the same struggles in the great works and the silver screen.

All of these experiences unfolded in ways unique to us, as unique as our fingerprints. At moments in time, specific in life and apertures within human history, as well as unfolding chronologically and with emotional intensity in just our own story: they are unique. They are subjectively ours. A person feels and responds to another across time, space, and emotionally weighted events. And the similarities and differences are what interest and sustain us. The imperfections of a therapist, lover, parent, or boss who is trying to understand is what we need because that difference between our expectations and their reality as they reflect it back to us is the space we need to make change within ourself. We feel the effort and the struggle to understand others to help us understand ourselves.

This is not true of ChatGPT. We know we can read and empathize through literature, stories, songs, paintings, cultures, and movies. So, yes, ChatGPT can produce more material for us to respond to, but we are not responding with it to any degree of intersubjectivity that real empathy requires to create and express ourselves through engaging with the words and works of others. It never had its heart broken nor excited to ecstasy, much less experiencing moments of kindness, boredom, or cruelty. ChatGPT cannot feel what it is to live a life. The only way to know a life is to live one. American Sociologist Sherry Turkle points out that we may be fooled by these fake bonds and affection in late and early life, but they will not sustain us.

We may feel more comfortable in the digital cave and its illusion of control, but life and love and meaning are beyond it. There are flickers of hope — the GenZer (born after 1999) are starting to write love letters again and collecting records and "tangible" things. Granted, these artifacts of a supposedly simpler past — fraught as it, too, has been — can be very Instagrammable or popular on Tik Tok. But a love letter is a love letter, and this paper is our love letter to those leading us out of the blue light darkness.

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