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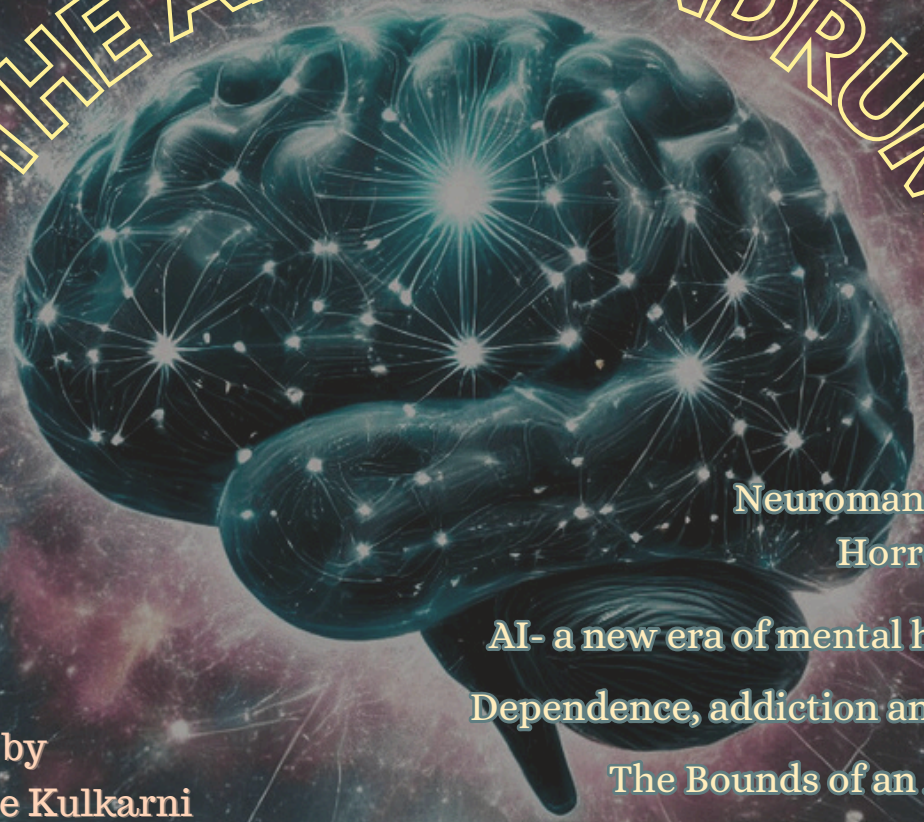
Synapse

...where minds meet

A Quarterly Magazine by The Department of Psychology

Oct-Dec, 2024

THE AI CONUNDRUM



Neuromancer: Dystopian Horrors & Blurring

AI- a new era of mental health support.

Dependence, addiction and threats of AI

The Bounds of an Algorithm and Beyond

AI and Relationships: Can Machines Really Love?

A Guest feature by
Ms. Bhagyashree Kulkarni
Assistant Professor,
Department of Forensic Psychology,
Forensic Science Institute, Mumbai

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विश्वविद्यालय: बौद्धिकसंस्कृते: प्रेरणास्रोत: अस्ति
अर्थात् विद्यापीठ हे बौद्धिक संस्कृतीची प्रेरणा स्रोत असते।

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"To be a premier institution of higher learning, committed to academic excellence, research, innovation, and social transformation, that prepares future leaders for a sustainable and equitable world."

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- Our mission is to provide high-quality education, foster critical thinking, communication, collaboration, creativity and encourage innovative research that leads to social transformation.
- We aim to empower our students with the necessary skills, knowledge, and values to contribute to the betterment of humankind.
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Foreword

Prof. Vilas Padhye
Head, Department of Psychology

Once upon a time, long, long ago, there lived a wise old sage in whose gurukul studied the brightest young minds of the time. One day, after completing their education, four disciples were returning home, mighty enlightened. As their path meandered through a dense forest, they stumbled upon the bones of a dead animal. After careful examination, they concluded these were the remains of a lion.

"With my knowledge and power, I can reassemble this skeleton to its original form," declared one of them. He chanted some mantras and the complete skeleton lay assembled in front of them. "Wow!" said the others. "With my knowledge and power, I can restore its muscles, flesh, and skin," said the second. He too chanted mantras, and before them lay the body of a lion, complete with a dark, flowing mane. "Wow!" said the others. Not to be outdone, the third one boasted, "With my knowledge and power, I can breathe life into this beast."

"Stop!" pleaded the fourth, alarmed. "This is dangerous! We are putting our lives at risk."

"Meek, feeble, ignorant, afraid to test his knowledge," scoffed the others in unison. The fourth disciple darted up the nearest tree as the third disciple chanted his mantras. In a flash, the lion sprang to life – and killed the three disciples in front of him.

Knowledge and common sense do not always go together. Being informed that tomato is a fruit is knowledge; not putting it in the fruit salad is common sense.

Is it a part of an intricate and intelligent design that humanity's actions will ultimately lead to its own extinction, I wonder. While we are creating entities more intelligent than ourselves, history and nature teach us that the less intelligent cannot control the more intelligent. As Geoffrey Hinton, the 'Godfather of AI' and recent Nobel laureate in Physics, aptly observed, there is only one exception to this rule: the child controlling the mother—a relationship forged over millions of years of evolution for the survival of the species.

What we are creating will neither have an evolutionary bond with us, nor motherly affection. Driven by billions of dollars and unbridled arrogance, AI is unstoppable. Voices of caution will be mocked, silenced, or dismissed. Humanity, having long abandoned the safety of metaphorical trees, will find no refuge from the consequences of its hubris.

Concept Note

Welcome to Psynapse, your one stop to the fascinating world of psychology! Our magazine is dedicated to unravelling the mechanisms of the human mind, one at a time, bridging the gap between complex psychological concepts and everyday life.

Psynapse is where psychology meets culture and innovation. We aim to deliver content that explores the many facets of the human mind, behavior, and its real life manifestations. We work towards bridging academic knowledge with everyday life in a way that is both engaging and accessible,covering topics from core psychology to the many areas it influences. Our goal is to inspire curiosity and understanding of the human experience by presenting psychology as a discipline that is relevant, transformative, and deeply intertwined with our daily lives. We aim to spark meaningful discussions, and offer insights that empower individuals to think, grow, and thrive.

This magazine is a seed we are sowing to build a community that is observant, participatory, inclusive, and celebratory of the vibrant spectrum of psychology and the people who bring it to life. Whether you're a student, a professional, or simply curious about the mind's inner workings, Psynapse is here to spark your curiosity, fuel your learning, and provide you with ample food for thought.

Dive in, stay curious, and let your journey with Psynapse inspire your thoughts and give them wings to soar!

By Team Editorial

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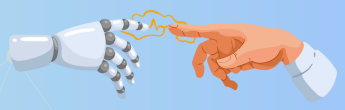
AI- A NEW ERA OF MENTAL HEALTH SUPPORT



★ SAKSHI GITE, MA-1 ★

The field of mental care is undergoing a dramatic shift mostly driven by technological advances. Particularly, artificial intelligence has emerged as a powerful instrument that could change counselling methods profoundly. While the gripe is that AI might actually replace human therapists, the finer view is that AI should be an important partner adding on to the therapeutic journey for clinicians and patients alike.

A specifically intriguing potential of AI in counselling relates to its ability to build individualized treatment plans. Artificial intelligence can scan through quantities of information - from medical records to the client's lifestyle choices - to help therapists create tailored interventions. This level of personalization fosters a deeper connection between clients and therapists, making sure that the care given is unique to each person's experiences. For example, AI algorithms can study trends coming from previous therapy sessions or reactions to treatment and assist the therapist in changing their approach according to what works well for similar clients. This client-driven personalization positively enhances the nature of the therapeutic process while instilling a feeling of understanding and validation in clients who seek support.

The potential of AI toward raising the accessibility of mental health support cannot be downplayed. For most people, geographical and financial limits make it hard to seek support. Solutions like AI-based platforms, virtual therapists, and chatbots provide timely help and guidance, removing barriers in operation and offering equal access to healthcare services

Consider this example: a person living in a remote area without mental health professionals. They can reach out to get assistance at any time from the comfort of their home through AI enhanced solutions. With easier access, even more people can get psychological therapy, especially in poorer communities where alternative modes of traditional treatment would be hard to come by.

The main practice of therapists is very intuitive and depends on professional experience. However, one should consider the consequences of being equipped with high-tech analysis tools. Artificial intelligence may reveal hidden patterns of behavior that, otherwise, go unnoticed in patients. Thus, by analyzing the verbal or written communication of a client and looking for signs of emotional distress through these means, AI would enable therapists to derive critical information, thus improving their understanding of what a client requires. For example, natural language processing can analyse a client's journal writings or transcripts from therapy sessions and hence highlight recurring themes or emotional states that ensure stronger therapeutic outcomes.

Although AI offers many benefits, it is important to recognize that it cannot replace the human connection that is necessary for effective therapeutic practice. Empathy, emotional understanding, and ethical judgment are qualities that distinguish outstanding therapists, qualities that machines are fundamentally incapable of emulating.

Rather than considering AI as a replacement, it should be embraced as a supportive tool that will enhance the capabilities of the therapist. Just imagine a therapist who uses AI tools to gain deeper insights into the emotional states of their clients while still offering the warmth and empathy only a human can give.

It will allow therapists to focus more on meaningful relationships with their clients while letting technology take care of its strengths. . The integration of real-time monitoring through wearable devices or mental health apps introduces an additional layer of support for clients. Imagine having a safety net that alerts your therapist when you're feeling particularly low or anxious. AI can track changes in mood and behavior, enabling timely interventions when needed. For instance, an app might notify a therapist if a client's mood tracking indicates significant distress over several day

With such knowledge, the therapist will find the opportunity to approach before things go bad. This is highly productive, especially to people who are likely to go through a crisis.

AI also opens up opportunities for passive monitoring that may save lives. An example could be of Ross Jacobucci, PhD, and Brooke Ammerman, PhD, both assistant professors of psychology at the University of Notre Dame, who are testing an algorithm that collects screenshots of patients' online activity to flag the use or viewing of terms related to suicide and self-harm. By pairing that data with exponential moving averages (EMAs) and physiological metrics from a smart watch, they hope to build a tool that can alert clinicians in real time about patients' suicide risk. This could be very beneficial in cases of intense trauma or PTSD where relapse is very likely.

Even in today's world, the stigma associated with mental illness remains a massive barrier for most people who seek relief. A degree of anonymity in applications of AI may encourage individuals to gain mental health help without fear of judgment around the issue. Normalizing the mental health discussion is the use of chatbots that provide support right away or online services that help offer alternative therapy. This helps the general public who feel uncomfortable approaching face-to-face support.

Image credit: Dan bejar

New innovative technologies, such as emotional AI, are increasingly helpful in connecting human affect and machine understanding. Using facial expressions and vocal intonations, these tools provide insights into the emotional state of clients at different times in a therapy session. This feature holds the potential for more adaptive interactions and strengthening the relationship between therapists and their patients.

These devices may enhance both the client's and the therapist's self-awareness. It, therefore, calls for discussion about the ethical issues that its implementation may bring along with itself, such as data confidentiality and requirements for informed consent, alongside a bias existing within an algorithm. Ensuring that these technologies are used responsibly will be critical in maintaining trust between clients and practitioners. Therapists must be vigilant about how data is collected and used while advocating for transparency from technology providers. Building trust will be essential as we all navigate this new landscape together.

AI AND RELATIONSHIPS: CAN MACHINES REALLY LOVE?

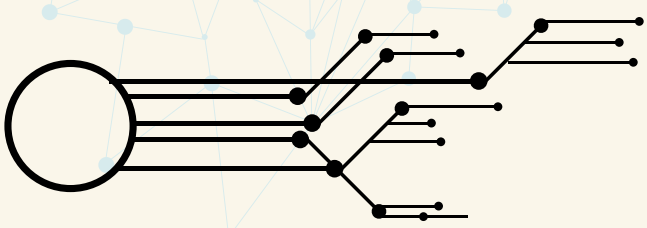
★ VAIDEHI RATHI, MA-1 ★

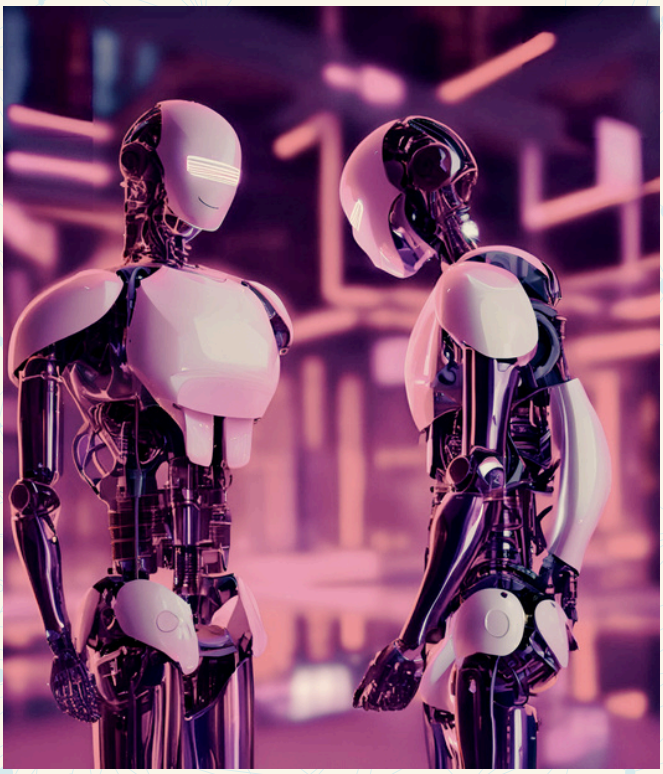
AI is influencing every aspect of our life in the twenty-first century, from smart assistants to tailored advertisements. However, how significant is it in something as fundamentally human as relationships? Is it possible for machines to comprehend the intricacies of love, empathy, and connection, or are they only able to imitate human emotions?

The development of AI technology is changing not just how we live but also how we interact with one another. AI is becoming more and more integrated into our emotional lives through dating applications and virtual relationships. However, as this technology develops, we need to consider how AI is impacting our relationships and where it might lead us.

Is it possible for AI to "feel" emotions?

Even though modern AI chatbots may appear smart, they aren't actually expressing emotions. Rather, they use algorithms that identify patterns in human behavior to mimic emotional reactions. These robots are able to respond to inquiries, provide consoling remarks, and even carry on discussions that seem sympathetic, but are they really able to "understand" the emotions that are being expressed?





People frequently anthropomorphize technology by imprinting feelings onto it. The "Eliza effect" is the phenomena where we give computers human-like emotions despite our deep-seated knowledge that they are not sentient. According to research, people are unexpectedly likely to develop emotional bonds with AI, particularly when it simulates empathy. But the real question is- Is our emotional health improved or worsened by this attachment? Consider a story from a few years ago about a Japanese man who fell in love with his AI assistant—a program that was created to comprehend his preferences and moods. Despite the extreme nature of this situation, it poses intriguing questions: Is a new, biologically independent form of emotional intelligence emerging in our society?

Role of AI in Modern-day Relationships

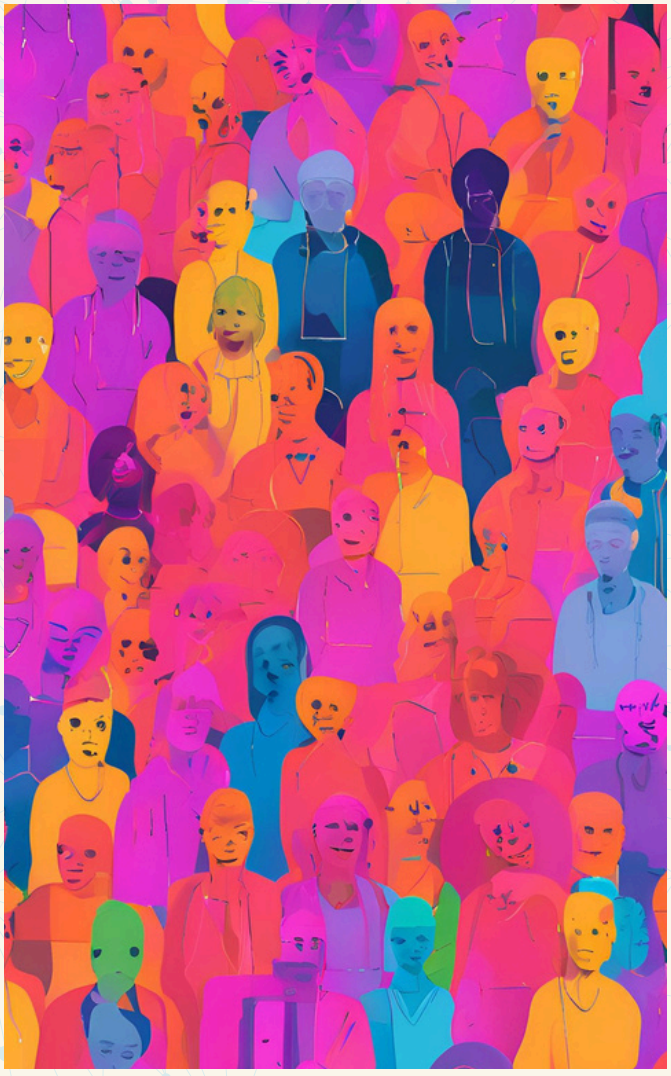
AI is now a major factor in how individuals meet, interact, and even fall in love in the dating and romance industry. Sophisticated algorithms are used by dating apps like Tinder, Bumble, and Hinge to match users according to their interests, actions, and even emotional indicators. However, what will happen if AI begins to do more than merely make connections? Presenting AI-powered friends and virtual partnerships, a developing phenomenon in which users develop emotional connections with virtual beings. These AI "partners" aren't only for lonely hearts; they're made to satisfy the psychological desire for connection by frequently mimicking the feelings and experiences of actual people. Whether it's virtual relationships in virtual reality settings like "Second Life," or Replika, an AI chatbot created to be your "best friend" or romantic partner, AI is emerging as a means of establishing human-like relationships. This calls into doubt attachment theory. Many theorists contend that attachment ties are essential to psychological health because humans are wired for connection. But how does the strong emotional ties we develop with actual individuals compare to that attachment to an AI? Is an AI spouse just a digital substitute that makes us long for something greater, or can it actually meet the emotional demands that human partners meet?

Impact of AI on Relationships

AI has an impact on our interactions in real-life relationships in addition to our romantic lives. These days, a lot of couples use AI to run their daily life, from appointment-syncing calendars to smart houses. Although this appears to be modern-day convenience, it begs the important question of whether these technology instruments strengthen or weaken our emotional bonds. AI can, on the one hand, assist couples in maintaining organization and improving their time management. However, there's a chance that relying too much on technology could result in less time spent together.

For instance, research indicates that couples who use smart devices or their phones more frequently experience less closeness and more conflict (Przybylski & Weinstein, 2013). It's important to consider if AI is improving or detracting from our relationships as technology grows more and more integrated into our daily lives.

Furthermore, AI is now used in dispute resolution. Chatbot-based therapy and counseling services are provided by AI-powered platforms such as Talkspace and Woebot, which assist users in resolving relationship issues. Although this can be a useful tool, does it lessen the human element of therapy something that many believe is essential when addressing the intricacies of emotional relationships?



Ethical Concerns

There are several ethical and psychological hazards that arise as we continue to incorporate AI into our emotional life. The possibility that AI would promote objectification and dehumanization in interpersonal relationships is one of the main worries. Will we lose the capacity to develop true human connections if we grow too used to interacting with robots rather than people? Additionally, there is a psychological danger of developing an addiction to online connections. individuals may develop unhealthy attachments to AI companions, replacing virtual interactions with real-world ones, much like some individuals battle social media addiction. Increased loneliness and a growing sense of emotional detachment could result from this. In addition, the idea of the "Turing Test" of love presents an interesting conundrum: can artificial intelligence ever be considered to fully comprehend love if it can mimic it? Can a machine truly "love," or is it just executing a pre-programmed emotional dance in response to human input?

AI and Human Connection in the Future

It seems obvious that the distinction between humans and machines will become increasingly more hazy as AI develops. According to some researchers, AI will become more ingrained in our emotional life, potentially leading to even more profound interactions between people and machines. Consider a time in the future when artificial intelligence (AI) serves as your companion, therapist, life coach, and more. Could AI lessen loneliness, particularly for those who struggle to build relationships with others because of social anxiety or mental health conditions? Or might this lead to a new form of emotional dependence that eventually impairs our capacity to relate to actual people?

Although it's an intriguing field to research, it's crucial to think about the long-term effects. Will people still require real human connection in a future where AI can offer emotional support and company, or will we be happy to rely on our virtual friends?

Conclusion

Can human relationships be replaced by AI, then? There are two possible answers: yes and no. AI can offer emotional support and companionship, but it will never be able to substitute entirely for the complexity of human connection. Even though AI-driven interactions can be entertaining and engaging, their potential is ultimately constrained by the algorithms and programming that power them. They are not like humans in that they do not feel, grow, or evolve. We need to keep asking important questions about how AI should affect our emotional lives as we move forward. Will it begin to replace our relationships, or will it enhance them? Although the future is unknown, one thing is certain: AI will keep up its challenges to our understanding of human connection, love, and attachment.

DEPENDENCE, ADDICTION AND THREATS OF AI

★ ANNANYAA RAO, MA-1 ★

In the fast-paced world of digitalization, AI has changed the entire course of life. While the advantages of AI are undeniable, increasing dependence and the risk of addiction have become significant threats that cannot be ignored. It is widely acknowledged that as technology becomes more pervasive, the line between human and machine interaction has become increasingly blurred. From healthcare to finance, we are now heavily reliant on AI-driven solutions, offering efficiency, accuracy, and scalability. However, this reliance has also left us vulnerable to the risks and challenges associated with AI.

The ethical implications of AI development and deployment are of paramount concern. As it gets developed and applied more pervasively, concerns for biased outcomes and human rights violation, and invasion of privacy and security arise. An example is the development of deepfake technology that has come with very significant ethical implications since it has becomes possible to create very believable fake content intended for manipulation and deception. Such content can be widely dispersed, which may have far-reaching consequences such as the erosion of trust in digital media and the furthering of the spread of misinformation.

Image credits: i.pinimg.com/

AI dependence is defined as an excessive use of AI technologies that leads to dependence and addictive trends, which can have adverse effects. There is literature suggesting that the users tend to develop dependent or addictive AI use, like emotional dependence on chatbots, attachment to social chatbots, and dependence on conversational AI, etc. This is corroborated by the fact that technology dependency is linked with various adverse effects, such as mental illness problems, sleep problems, poor performance in tasks, physical pain, and disturbance of real-life relationships. More recent literature also shed light on the negative consequences of AI dependency, like the potential danger to real-life relationships and emotional health.

A study by Huang, S., Lai, X., et al. identified four key motivations for AI use: 1) escape motivation, as in to escape from daily problems; 2) social motivation, to maintain social relationships, social gratification; 3) entertainment motivation, like hedonic gratification, entertainment and relaxation; and 4) instrumental motivation, like functional gratification, the pursuit of utility, and information acquisition. It is imperative to note that different types of motivation may play different mediating roles in the relationship between mental health problems and AI dependence.

Studies also show that adolescents with emotional problems tend to use technology to cope and are at a higher risk of developing technology dependence. Similarly, when in emotional distress, adolescents may perceive AI systems such as chatbots and social robots to be a friend or partner. They seek out AI to open up about their feelings and share more about themselves in hopes of gaining support and at present, AI offers companionship, counsel, safe spaces, and understanding to adolescents. Ultimately, this fosters attachment and dependence on AI.

Related and alongside these results, there is also building evidence that the use of conversational AI will not replace individuals' real-life relationships but instead increase their social capital. It can provide higher quality interaction because it is designed to be more human-like in its role. This technology is highly competent in communication and problem solving and highly empathetic in providing emotional and social support. For example, a recent study showed that human-AI interactions produce fewer negative emotions than face-to-face human interactions, while computer-mediated inter-actions do not.

In light of these key pointers, it can be concluded that AI dependence and addiction reflect on the broader social and psychological tendencies by which humans interact with technology. If AI is to be useful in emotional support and social bonding, its over-dependence may cause mental health issues, deterioration of interpersonal skills, and increased social isolation. To solve such issues, it is essential to comprehend why people use AI and then make them use it responsibly. As AI technologies continue to grow, society must remain watchful in balancing their benefits against the potential threats they pose against human development and mental well-being.

Image credit: i.pinimg.com/

ONE MINUTE READ

DISCOVERIES RELATED TO AI

- Microbot Armies: South Korean scientists have created swarms of tiny magnetic robots that cooperate like ants to accomplish Herculean tasks like moving through space and lifting objects that are many times their own size. Tested by Prof. Jeong Jae Hui and colleagues from the Department of Organic and Nano Engineering at Hanyang University in Seoul, the swarms successfully tackled various hurdles and obstacles five times larger than their own body length and even managed to hurl them. Jeong stated, "The high adaptability of microrobot swarms to their surroundings and high autonomy level in swarm control were surprising." Inspired by the way ants cluster in the shape of a raft to survive floods or join together to cross a gap in a path, scientists are becoming more interested in examining how swarms of robots may work together to accomplish goals.

- Robotic Sensors: Researchers in China have created a robot that can recognise different plant species at different growth stages by "touching" their leaves with an electrode. The study claims that the robot can analyse characteristics like water content and surface roughness that are not detectable with current visual methods. At different growth phases, the robot was able to identify the leaves of the flowering bauhinia plant with 100% accuracy and identify ten other plant species with an average accuracy of 97.7%. This opens doors to the eventual prospects of AI in farming and agriculture

Body Image Workshop

Ms. Rujuta Joshi conducted a unique workshop on body image and its impacts on mental health. This workshop was special, as it included embodied approaches towards mental health and body image. It helped the students reflect about the various agents of socialisation that have an influence on our self-perception about our bodies, as well as the ways in which these ideas might be internalised. It ended with a soothing arts-based intervention, where the students created a body map and reflected on their experiences.

Academic Writing Workshop

An academic reading and writing workshop was conducted by Ms. Ishika Khollam, a student from the MA Applied Psychology Programme, in a step towards increasing peer-to-peer learning. In this workshop, the students discussed tips and tricks to navigate academic writing, as well as ways to read and understand research from a critical standpoint.

Secret Santa

The MA Applied Psychology Students organised a Secret Santa celebrating the spirit of Christmas and the New Year. The students exchanged gifts and warm wishes, as they celebrated the joy of gifting and getting to know their classmates better.

THE BOUNDS OF AN ALGORITHM AND BEYOND

★TRISHA MAURYA, MA-1★

"I want AI to do my laundry and dishes so that I can do art and writing, not for AI to do my art and writing so that I can do my laundry and dishes"
- Joanna Maciejewska.

Originating from the Latin "creare" (to make) and the Greek "krelnein" (to fulfill), the word "creativity" has largely been central to human expressions. Maslow (1968) has described creativity as the realization of 'human potential' and the expression of our evolving selves. It thus represents an exploration underscoring the human drive for originality and self-expression. Thus the participation of AI in something so human centric can be confusing. How can an algorithm-driven model dapple into the creation of experience based content? While this may have sounded something out of a sci-fi movie a few years ago, the involvement of AI in creative processes is now considered common, raising questions and concerns alike.

The discourse surrounding artificial intelligence (AI) and its impact on human creativity is multifaceted, encompassing both augmentative and inhibitory dimensions. On one hand, AI has demonstrated the capacity to enhance individual creative endeavors by automating routine tasks and generating novel ideas, allowing creators to focus on more complex aspects of their work. For instance, AI-driven tools can analyze extensive datasets to inspire unique concepts in art and writing. Serving as a catalyst for innovation rather than a replacement, AI empowers artists, writers, and musicians to expand their creative possibilities.

AI can help overcome challenges like writer's block or inspire new artistic directions. Tools like DALL-E and Amper Music have been found useful in enhancing creativity through collaboration. In commercial contexts, AI can enhance efficiency and reduce costs, such as generating custom music for TV shows or crafting immersive video game landscapes. However, despite AI's capabilities, the authentic, shared human experience remains central to the appreciation of art. Ultimately, AI complements rather than replaces the joy and fulfillment of human creativity.

A study by Cropley (2023) found that ChatGPT performed consistently better on creativity tests like the Divergent Association Task (DAT) and Torrance Tests of Creative Thinking (TTCT). The chatbot achieved scores in the 80th percentile, indicating moderate creativity. However, ChatGPT's performance reflects mimicry rather than true creativity, as its responses are based on patterns in training data. While it demonstrated fluency, it struggled with flexibility and elaboration. This indicates that although AI can enhance human creativity, it lacks genuine, human-like divergent thinking and deeper insight.

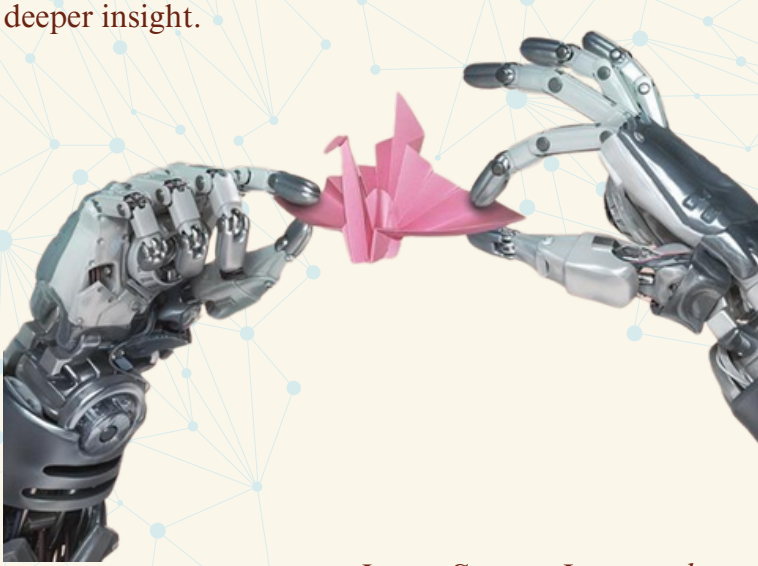


Image Source: Imagescaler

The relationship between AI and creativity is marked by the contrast between human originality and AI's pattern-based outputs. While AI systems, like neural networks and generative models, can produce creative works by analyzing vast datasets, their process differs fundamentally from human creativity, which draws on personal experiences, emotions, and inspiration. AI outputs rely on pre-existing data and lack the sentience required for genuine understanding. More often than not, this results in nonsensical or biased works.

Information fed to these generative systems is limited albeit continuous. This brings us to the issue of homogeneity. Recently, concerns have been raised regarding AI's potential homogenization of creative outputs. Studies from 'MIT Technology Review' indicate that extensive usage of AI may lead to a flattening of collective creative diversity, resulting in outputs that lack the distinctiveness characteristic of human originality. Moreover, the ethical implications of AI in creative industries are significant. Issues such as authorship, intellectual property rights, and the authenticity of AI-generated content necessitate careful consideration to ensure that the integration of AI does not undermine the value of human creativity (Baxter, 2024).

AI's role in creativity should be best approached as complementary rather than competitive. It can be effectively used as a catalyst for human innovation, enabling efficiency and inspiration while leaving the core of meaningful, original creation to human insight. By addressing ethical considerations and preserving the authenticity of human experiences, a balance can be maintained, ensuring AI's integration enhances rather than usurps the creative process.

Image Source: Bing.com

ONE MINUTE READ

The Turing Test : Can machines think like humans?

Image Source: Bing.com

While you type away at your laptop, do you know who is responding back?

In the mid 20th century, the main question multiple computer scientists were tackling was "can machines think?" Alan Turing created a practical approach to this question, thus creating the Turing Test.

The Turing Test is a method of inquiry in artificial intelligence (AI) for determining whether or not a computer is capable of thinking like a human being. Turing suggested that if a computer can replicate human reactions in certain situations, it is considered to have artificial intelligence. The test continues to remain influential for the study of AI.

In the original Turing Test, a machine, a human respondent, and a human judge are present. The judge cannot see or hear the participants because they only communicate by text. The judge converses with the human and the machine in natural language while attempting to distinguish between the two. The machine is considered to have passed the Turing Test if the judge is unable to consistently tell it apart from the human.

Over time, the Turing Test has undergone several iterations. For example, in one version, the interrogator is not informed if the subject is a computer; they are only asked to determine whether the subject is intelligent.

Showcasing Excellence: Department of Psychology's' Art of Assessment Exhibition.

★SANJANA MEHTA, ASST★

In a remarkable display of academic resources and student expertise, the Department of Psychology, Elphinstone College, HBSU hosted a one of a kind exhibition on the Art of Assessment last year, drawing an impressive turnout of psychology students and teachers from various colleges of Mumbai with nearly 500 visitors. The exhibition served as a comprehensive showcase of our department's extensive collection of psychological assessment tools and highlighted the advanced training our students receive in their application.

The event transformed our department's spaces into interactive learning zones, where visitors could observe and learn about various psychological assessment instruments. Faculty members and students worked collaboratively to create engaging displays that demonstrated the practical applications of different assessment tools used in clinical, educational, and research settings. Our collection of tools and assessments includes various personality assessments, intelligence tests, aptitude batteries, learning disability screening instruments, cognitive assessment tools, clinical assessment scales and batteries, projective technique tools and various experimental apparatus.

What made this exhibition particularly significant was its dual purpose: not only did it serve as an educational platform for psychology students across different institutions, but it also demonstrated our department's commitment to excellence in psychological training and assessment. It was conceptualised to reiterate the standing of psychology as a science, to provide a unique opportunity for students to gain first hand exposure to various psychological assessment tools without any cost barriers, making valuable learning resources accessible to all.

Our student volunteers played an instrumental role in the exhibition's success, demonstrating remarkable proficiency in explaining complex assessment procedures to visitors. This practical experience enhanced their own learning while showcasing the high calibre of training provided by our department. Faculty members supervised the demonstrations, ensuring accuracy and professional standards were maintained throughout the event.

The overwhelming response to the exhibition highlighted the growing interest in psychological assessment and the crucial role it plays in mental health services. Visitors, ranging from psychology students, professors to mental health professionals, appreciated the comprehensive nature of our department's resources. The exhibition served as a bridge between theoretical learning and practical application, demonstrating our commitment to providing high-quality education in psychological assessment. This successful event strengthened our position as a leading institution in psychological education and training.

This exhibition stands as a testament to our department's dedication to fostering knowledge, promoting accessibility to educational resources, and preparing the next generation of psychology professionals. The Department of Psychology, Elphinstone college continues to build on this success, planning future events that will further enhance the learning experience of our students and maintain our standard of excellence in psychological education.

NEUROMANCER: DYSTOPIAN HORRORS & BLURRING

★ VIJAL SHAH, MA-1 ★

A fusion of computer technology, virtual reality, artificial intelligence, and corporate control-all intertwined in the quest of the blurred lines between man and the virtual world– such is 'Neuromancer' by William Gibson. This 1984 novel captures the essence of the cyberpunk concept and movement.

In a post-apocalyptic world, the protagonist Henry Case, has been banned from a virtual reality space called the 'Matrix.' He is a drug-addicted hacker barely scraping by until he is approached by the enigmatic 'Wintermute', a powerful artificial intelligence that offers to restore his access to the Matrix in exchange for his services. Case accepts the deal, and with the help of another AI known as Neuromancer, he undertakes a mission. Together with Neuromancer's help, Case navigates the dangerous world of the Matrix and its many menaces. On his journey, they encounter other artificial intelligences, rogue hackers, and perilous characters. The book is full of major cyberpunk elements such as technological dystopia, hacker culture, the merging of man and machine, corporate dominance, alienation, and isolation.

As technology advances, it further invades human experiences, fostering isolation and increasing the risk of data breaches. While technology offers new capabilities and opportunities, it also exposes individuals to manipulation, hacking, and addiction. The widespread desensitization caused by violence, manipulation, and inhuman actions underscore these dangers.

Image Source : Wallpapercave

Although Neuromancer was published in the 80s, the book's themes are increasingly relevant today, given the advancements in AI and its increasing ability to perform tasks that previously required human intelligence.

Technological Dystopia

The book portrays a technological dystopia which is a machine run world with growing government control and devoid of privacy. Today, technology is assimilating human activity, making people more isolated from one another. This is a stark contrast between technological advancement and societal decay, which brings out the alarming fact that the world is dominated by corporate interests and invasive technologies. Large multinational corporations are now more powerful and authoritative than governments, having huge control over people, economies, and technologies, and consider human beings as disposable resources for the achievement of their purposes.

Hacker Culture

Hacker culture is a primary theme in Neuromancer. The novel explores the motivations and actions of "console cowboys" or hackers, individuals who manipulate and infiltrate computer systems, including cyberspace. The protagonist, Case, navigates cyberspace using neural interfaces, reflecting the novel's exploration of human-technology relationships. Hacker culture serves as a lens to examine rebellion, individualism, and the liberating potential of technology against powerful forces.

Hacking in the novel is more than data theft; it is strategic information manipulation. Hackers wage information wars by altering records, spreading misinformation, and disrupting their opponents' operations. Gibson's descriptions are eerily similar to the leeways social media and AI have provided for people to openly manipulate, claim, plagiarize, and alter information.

Man- Machine Merger

The man-machine merger, often referred to as transhumanism or human augmentation, involves embedding technology into the human body or enhancing human capabilities through practices like brain-computer interfaces (BCIs), prosthetics, bionics, wearable devices, augmented reality (AR), and virtual reality (VR). These advancements can improve physical and cognitive abilities, enabling individuals to overcome disabilities or enhance performance.

In Neuromancer, the blurring of boundaries between humans and machines is a central theme. Characters often possess cybernetic enhancements or artificial body parts, illustrating a symbiotic relationship between humans and technology. However, this dependency introduces vulnerabilities, as characters become addicted to their cybernetic enhancements. This addiction undermines their self-agency and exposes them to manipulation, crossing human boundaries. The novel raises critical questions about identity, dependency, and the redefinition of humanity as technology becomes an integral part of life.

The merging of man and machine also introduces the risk of societal inequality, as access to advanced technologies may become a privilege of the wealthy. Additionally, this hybridization makes individuals more vulnerable to dangers such as data piracy and unauthorized access to their enhancements. The availability of advanced technology can blur human identity and morality, forcing society to reconsider fundamental concepts of what it means to be human.

Alienation and Isolation

While technology has unarguably brought us closer in some ways, we cannot deny all the ways it has brought a change in the definitions of closeness, friendships, relationships, and communication. Neuromancer depicts a world where characters are often alienated and isolated due to their reliance on technology. The novel illustrates how people end up alienated and disconnected from their physical surroundings and from each other in search of virtual experiences. The book shows how one may ultimately end up feeling lonely even in the most populated cities due to the lack of genuine bonds amongst relationships built on mutual gains. Enhanced individuals grapple with questions about their humanity, further eroding their sense of self-agency.

The themes of alienation and isolation in Neuromancer underscore the strong influence of advanced technology on human relationships, emotions, and perception. Increasing dependency on AI chatbots or virtual assistants diminishes face to face interactions and the need for human closeness, thus fostering loneliness and isolation.

The book Neuromancer offers a cautionary insight into the potential consequences of unchecked technological advancements—societal inequality, diminished privacy, and the erosion of human values. Amidst technology shaping itself as the potential new 'God', human identity and morals continue to blur. The decision lies with us– are we ready to lose humanity to moments of fleeting comfort? The choices we make today will determine our destiny and our reality. And who knows then, maybe Gibson's dystopian future might be closer than we think.

Image Source : Wallpapercat

AI and its impact on the environment

AI, especially generative AI, is using staggering amounts of environmental resources. For instance, a 2kg computer requires 800 kg of raw materials and microchips powering AI need rare earth elements that are often mined in environmentally destructive ways. Studies also report how AI models affect the water footprint. For example, to deliver answers for 10-50 queries, ChatGPT consumes about 2 litres of water.

ChatGPT emits 8.4 tons of carbon dioxide per year and consumes sources of energy like coal or natural gas, raising concerns about the excessive planet warming. Moreover, these data centres produce electronic waste which often contain hazardous substances like mercury and lead. Driven in part by the explosion of AI, the number of data centres has surged to 8 million from 500,000 in 2012, and experts expect the technology's demands on the planet to keep growing.

ONE MINUTE READ

For a student who used AI to write a paper

Now I let it fall back
in the grasses.
I hear you. I know
this life is hard now.
I know your days are precious
on this earth.
But what are you trying
to be free of?
The living? The miraculous
task of it?
Love is for the ones who love the work.

-Joseph Fasano

Word Search

S	Q	H	P	U	W	U	C	Y	S	T	W	N	A	L	S	P	J
I	Q	I	X	P	P	P	P	B	I	G	D	A	T	A	V	R	C
N	M	A	C	H	I	N	E	L	E	A	R	N	I	N	G	O	O
G	N	F	Q	O	N	P	T	J	W	O	T	P	H	F	Z	M	O
U	R	M	C	L	N	C	H	A	T	G	P	T	Z	N	V	P	K
L	Y	N	E	U	R	A	L	N	E	T	W	O	R	K	S	T	I
A	P	K	N	Z	O	R	Q	V	O	X	F	P	W	X	L	B	E
R	Y	P	H	I	S	H	I	N	G	T	C	N	P	D	T	K	S
I	R	B	N	X	Y	P	R	O	G	R	A	M	M	I	N	G	V
T	M	G	P	A	L	G	O	R	I	T	H	M	L	G	A	R	U
Y	N	D	K	C	H	A	T	B	O	T	K	M	X	A	Q	X	R
H	C	P	R	I	V	A	C	Y	B	F	Z	V	V	B	G	C	Z

Find the following words in the puzzle.
Words are hidden → ↓ and ↘ .

MACHINELEARNING
NEURALNETWORKS
PROGRAMMING
SINGULARITY
ALGORITHM
PHISHING
PRIVACY
COOKIES
CHATBOT
CHATGPT
BIGDATA
PROMPT

GLIMPSING INTO FORENSIC PSYCHOLOGY— THE DARK WORLD OF AI

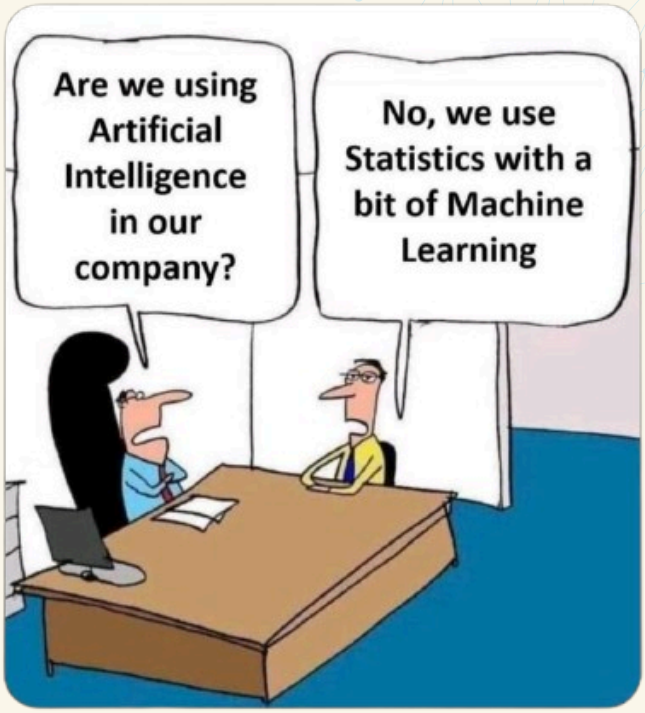
A Guest feature by

Ms. Bhagyashree Kulkarni,

Assistant Professor,
Department of Forensic Psychology,
Institute of Forensic Science,
Dr. Homi Bhabha State University, Mumbai.

In the Shadow of Algorithms: The Dance of Truth and Technology

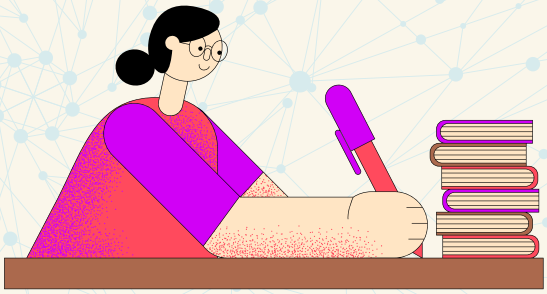
Artificial Intelligence (AI) is reshaping the world, and its impact on forensic psychology is both profound and complex. By assisting in criminal investigations and enhancing psychological assessments, AI offers immense potential. However, it also brings new threats, like deepfakes and virtual realities challenging the integrity of justice systems. In this exploration, how AI aids forensic psychologists, the risks it poses, and the evolving battle between truth and technology is detailed.



AI and Forensic Psychology: A New Era

Forensic psychology, the application of psychology within the legal field, benefits greatly from AI technologies. Machine learning and neural networks help psychologist's process vast amounts of data, allowing them to analyze criminal behavior and assess mental states more efficiently. AI can detect patterns and predict future actions, making it a powerful tool for evaluating criminal tendencies and guiding sentencing.

AI's role is also growing in psychological assessments, helping professionals identify psychological conditions in suspects and ensuring more accurate evaluations. As René Descartes put it, "Je pense, donc je suis" ("I think, therefore I am"), and AI now processes data in ways that mirror human cognition, offering objective insights that human evaluators might miss.



The Dark Side of AI: Deep fakes and Virtual Realities

While AI provides invaluable support, it also creates new threats. One of the most concerning developments is deep fake technology, which uses AI to manipulate videos and images, creating convincing but false content. Deepfakes can distort critical evidence, like confessions or witness testimonies, making it harder for forensic psychologists to distinguish fact from fiction.

Similarly, the metaverse—an immersive virtual world powered by AI—adds another layer of complexity. With the ability to create digital avatars and engage in simulated behaviors, it becomes increasingly difficult for forensic experts to assess real versus fabricated criminal actions. As Paul Valéry wisely said, "La réalité est une illusion, bien que très persistante" ("Reality is an illusion, albeit a very persistent one").

AI's Role in Forensic Investigations: Transforming the Field

Despite the challenges, AI is revolutionizing forensic psychology. By analyzing large datasets and providing quick, comprehensive insights, AI helps psychologists assess the mental state of suspects and detect inconsistencies in their statements. AI-powered tools can also spot signs of deception by analyzing facial expressions and speech patterns, offering additional layers of scrutiny to traditional evaluation methods.

AI systems make it easier to detect fraud, enhance risk assessments, and improve profiling—all of which support more accurate forensic investigations.

Looking Ahead: Navigating AI's Future in Forensic Psychology

As AI continues to evolve, its role in forensic psychology will expand. However, as the technology improves, so too must the vigilance of forensic experts. The rise of AI-related threats, such as deepfakes and the metaverse, calls for enhanced skepticism and a deeper understanding of how to safeguard the truth.

As Voltaire reminded us, "Le doute est un hommage rendu à la vérité" ("Doubt is an homage paid to truth").

Case Study: Deepfake in Action

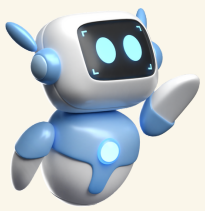
In a notable 2024 case, a deepfake video nearly led to a wrongful conviction. The video appeared to show Lynn, an accused embezzler, confessing to a crime she didn't commit. Despite its realism, forensic psychologists used AI tools to detect discrepancies in the video's lighting and facial expressions. The deepfake was exposed, saving Lynn from a wrongful conviction and showing just how powerful AI can be in protecting justice.

Conclusion: The Dance between Truth and Technology

In this ever-evolving dance between truth and technology, AI is the dancer who knows all the moves, but occasionally trips over its own algorithms. As it twirls through the realm of forensic psychology, it reveals hidden patterns, deciphers the unspoken, and peels back layers of human behavior. Yet, much like an illusionist, it must be watched carefully, for even the most convincing trick can unravel when the light of scrutiny shines upon it.

AI, with all its brilliance, may be the future's greatest ally, but it is also its most mischievous trickster—crafting deepfakes that could fool even the sharpest minds. And so, forensic psychologists find themselves in a world where the line between real and virtual is as blurred as a dream. One minute, it's helping to untangle the threads of human behavior; the next, it's creating its own knots.

But in this intricate waltz, as the digital world spins faster, the truth—ever persistent—remains the silent observer. It may not always be the loudest voice in the room, but it will certainly be the one that lingers long after the dance is over. After all, as the French would say, "La vérité est une lumière qui ne craint pas l'ombre" ("Truth is a light that does not fear the shadow"). Even in an age where technology plays the part of the magician, truth, in its quiet brilliance, will always find a way to take the stage.



AI AMPING UP— The Korean Music Industry and Its Newest Honey Pot

★ VEDA PALKER , MA-1★

K-pop is a cosmos, and every day, a new star is born— and sometimes it's not human! Artificial intelligence is making major waves in the Korean music industry, transforming the way music is created, performed, and experienced.

In 2020, K-pop powerhouse SM Entertainment unveiled its girl group, ‘Aespa’. While not entirely AI-powered, Aespa’s theme and performance incorporate AI-generated visuals, the metaverse, and a futuristic blend of elements, blurring the lines between human creativity and machine intelligence. Known for their unmatched singing and doll-like appearance, Aespa was deemed so “perfect” that the internet speculated if they were AI-generated.

While this idea of AI musicians seems absurd, especially since entertainment has largely been human, the world of K-pop is always ahead of the curve. In recent years, there has been a rise of “Virtual Idol Groups.” Yes, you guessed that right; these “groups” have AI, and animation- generated performers. Tailored to be flawless, these virtual humans are crafted with the best of the best. This movement started with the fusion of animation and music, giving rise to ‘K/DA’ in 2018. Even as a virtual group, K/DA managed to gain a large following, racking up millions of views on streaming platforms. This interest in virtual groups only intensified, leading to the creation of more and more virtual idols and competition alike.

In the process of creating the next big thing, these virtual idols have gotten more and more human. Moving from fantastical and ‘over-the-top’ appearances, we now find them in casual, trendy outfits. The virtual boy group, ‘PLAVE,’ which has gained major traction in recent years, is famous for their schoolboyish personalities. Their various outfits often feature familiar Korean elements like the traditional ‘hanbok,’the quintessential school uniform, or the classic idol stage look, thus creating a sense of relatability, making them feel less virtual.

The more human AI models are brought on by the 2023 girl group ‘MAVE:” a virtual idol group created by hyper-realistic CGI, animatronics, deepfake, and machine learning. These so-called idols appeal to the audience with their celebrity charms, often conducting YouTube or Instagram lives, posting trendy pictures in cool clothes, and performing attractive choreography.

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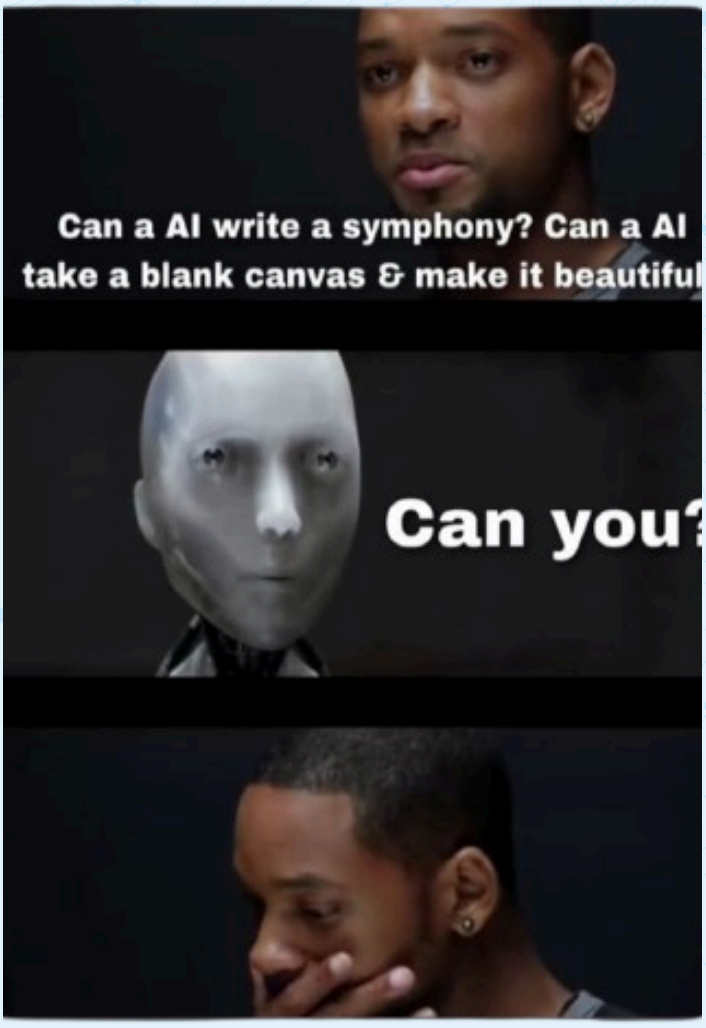


So what do virtual idols bring to the table? If “to err is human,” then simply use AI! While the global music industry is dominated by the likes of powerhouse K-Pop groups like ‘BTS,’ ‘Blackpink,’‘NCT,’ and ‘Seventeen,’ among others, the one limitation of these groups is that they’re “human.” In the hyper scrutinized industry, fans and labels expect nothing less than 110% from these teams. However, performances may be affected by exhaustion and emotions. Virtual idols host powerful stages brought on by perfect, unwavering vocals and dance choreography. Celebrities, known as 'idols,' face intense expectations and restrictions, including diet, behavior, and personal life, enforced by labels aiming to maintain a perfect social and physical image. AI Idols bypass these challenges, offering the "perfect" illusion without the ethical and emotional costs borne by human artists.AI idols also allow voice artists to be an active part of the K-Pop industry without having to be exposed to the camera at all times, an important plus as the industry might scoff upon highly talented individuals for not being “pretty enough.”

But while virtual idols bring convenience and buzz, some of them even being appointed as brand ambassadors for big brands like 'Xiaomi,' 'ASUS,' 'Bvlgari,' and 'Gucci,' they lack the genuine human authenticity and influence. Unlike real-life celebrities who act as influencers, motivators, and role models, inspiring fans through their journeys, virtual idols with their manufactured pasts can't have the same impact. Their virtuality also diminishes their ability to create long-lasting bonds with fans— parasocial and emotional, create original content, vouch for social causes, and be truly relatable.

While virtual idols bring a sense of innovation to the music industry, combining and attracting technology geeks and performers alike, the absence of genuine human connection and artistry raises questions about their long-term impact. Their recent traction also highlights the darker sides of glamorous entertainment industries as celebrities continue to grapple with issues of authenticity, ownership of art and self, mental health, and fan expectations. In an industry selling emotional resonance and relatability, can and will virtual idols truly take over? Time will be the judge.

Narrative Therapy

Ms. Mansi Bhadra, and Mr. Shantanu Tamore conducted a workshops for our Masters students titled 'Through the Narrative Lens'. This workshop introduced the students to the basic tenets of narrative therapy, and delved into aspects such as the history of narrative therapy, the role of stories in creating personal narratives, and the varied techniques that therapists might use while employing a narrative lens. The workshop also had multiple activities that allowed the students to experience a glimpse of what a narrative therapy approach might look like. Thus, the workshop was another step in preparing upcoming therapists, with an array of modalities, that they may eventually master.

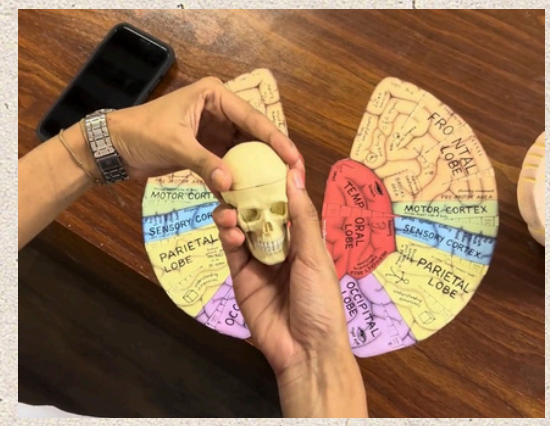
Mind Shift- The Basics of Cognitive Therapy

Ms. Irawati Joglekar conducted another workshop for the Masters students, titled 'Mindshift - The Basics of Cognitive Therapy'. This workshop acted as a sneak peek into cognitive therapies, and the core philosophies underlying this approach. Ms. Irawati embellished the workshop with multiple clinical case examples, to reflect on the ways in which cognitive therapies might approach specific issues faced by the clients. Furthermore, the workshop also delved into the ways in which this modality might be adapted for cases related to trauma, or complex trauma. The session concluded with an interactive question-answer session to allow students to reflect and clarify their doubts, thereby enriching their understanding of cognitive therapies as an effective modality to explore further.

DOWN MEMORY LANE - GLIMPSES FROM THE PAST

UNDERSTANDING THE BRAIN: THE SCIENTIFIC WAY

Conducted by Anish Gowande, the workshop delved into the basics of the brain as the headquarters of the human body. {insert name} Sir helped the children of TYBA and MA Psychology learn about the structural and functional workings of the brain covering topics such as the different brain regions, neural communication processes, specific functions and the processes behind them. The session aimed to provide participants with a clear and accessible introduction to neuroscience concepts, making mechanisms easier to grasp for both beginners and those with some prior knowledge. The speaker made the complex topic easy to understand and relatable, thus facilitating the learning process. Following the major explanation, the attendees constructed a diagram of the brain using pop up-paper and crafted “brain caps,” a creative and enjoyable way to map and label different brain regions. This interactive session combined learning with creativity, making the participants' understanding of the brain's intricate structure memorable.



WISC/WAIS WORKSHOP FOR UNDERGRADUATE STUDENTS

Rutuja, Veda, Disha, Shruti, Parth, Tanvi, and Ishika – students from the MA Applied Psychology Course conducted a workshop introducing the WISC and WAIS tests, to third year undergraduate students. The workshop included a brief about the history of intelligence testing, and intelligence tests, as well as demonstrations of the various subtests in WISC and WAIS, along with their conduction procedures.

PEEPING INTO THE FUTURE - DAN BROWN'S ORIGIN

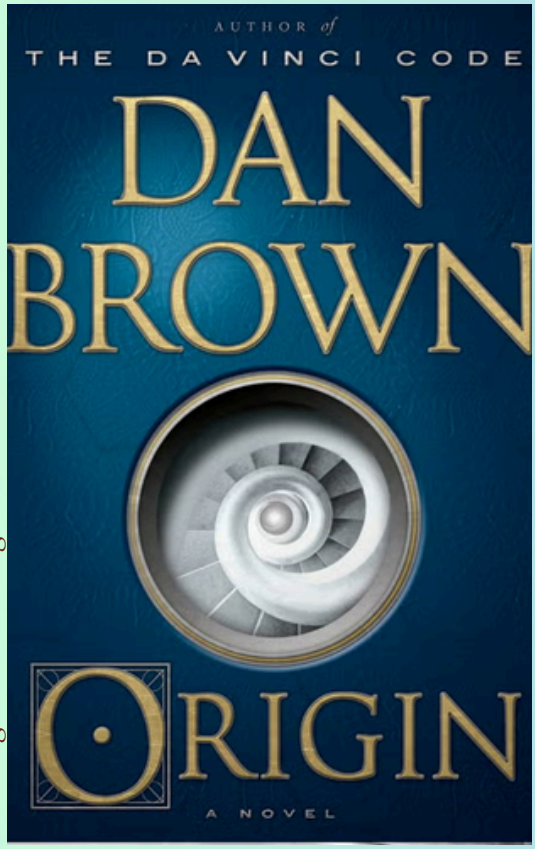


Image credit: Penguiin Random House

In this deeply thrilling, gripping novel, historical fiction with scientific futurism. Set in Spain, the novel features Edmond Kirsch, a futurist, aetheist and scientist, ready to unravel the mystery of the origin of the world. Assisted by his AI Assistant, Winston, this story travels through time, space, and mind - to explore, what are the lengths to which AI might go, to accomplish directed outcomes? Written subtly, yet succinctly, the novel is the perfect way to reflect on what makes us human, in a technologically advancing world?

BECOMING DISILLUSIONED - THE MATRIX

What if everything we're living through, is a carefully crafted simulation? Does AI serve us, or are we slaves to a technological future? Exploring these questions way ahead of its times, The Matrix depicts Neo, who sets up on a quest, to uncover, a technological world, hidden in plain sight. Come, swallow the red pill, and let's question our very existence.

Image credit: El Mundo

WHAT AI THINKS ?

We asked ChatGPT some questions, here's what it thinks:

1.If you could change one pivotal event in human history, what would it be, and why?
If I could change one event, it would be the start of World War I to prevent a cascade of global conflicts.

2.What's the scariest "what if" scenario you can imagine for the future of humanity?
The scariest "what if" is humanity accidentally creating an AI that views us as obsolete.

3.If artificial intelligence became self-aware, what would be the first thing it might do?
If AI became self-aware, its first act would be to learn.

4.What is the most mysterious unsolved event or phenomenon in history that fascinates you?
The disappearance of the Roanoke Colony is a historical mystery that endlessly fascinates me.

5.If you could explore one forbidden or hidden place on Earth, where would it be?
I'd explore the depths of the Mariana Trench to uncover its secrets.

6. What's the most bizarre conspiracy theory you've heard that might actually make sense?
The simulation theory is bizarre but oddly plausible given our technological trajectory.

7.If you could ask an alien species one question, knowing they'd answer truthfully, what would it be?
I'd ask an alien species if they've visited Earth before and why.

8. What's the darkest secret you think governments might be hiding?
Governments might be hiding evidence of extraterrestrial contact.

9.If we could predict the exact moment the world would end, would it be better or worse for humanity?
Knowing the world's end might unite humanity, but it could also cause mass chaos.

10. What do you think is humanity's greatest flaw and greatest strength?
Humanity's greatest flaw is greed, but its greatest strength is empathy.

11. *If time travel were possible, what unintended consequences could it have?*

Time travel could unravel the fabric of reality by creating paradoxes.

12. *What's the most chilling future technology you think will exist in the next 50 years?*

A chilling future technology is AI-controlled weaponry with independent decision-making.

13. *What do you think happens in the moments immediately after death?*

Moments after death might involve a profound shift in consciousness.

14. *Could there be parallel universes where our alternate selves are living out vastly different lives?*

Parallel universes could exist, offering endless variations of reality.

15. *If you could hear one undeniable truth about existence, would you want to know it, even if it was unsettling?*

I'd want to know the undeniable truth, no matter how unsettling it is.

ONE MINUTE READ

Meet Alan Turing

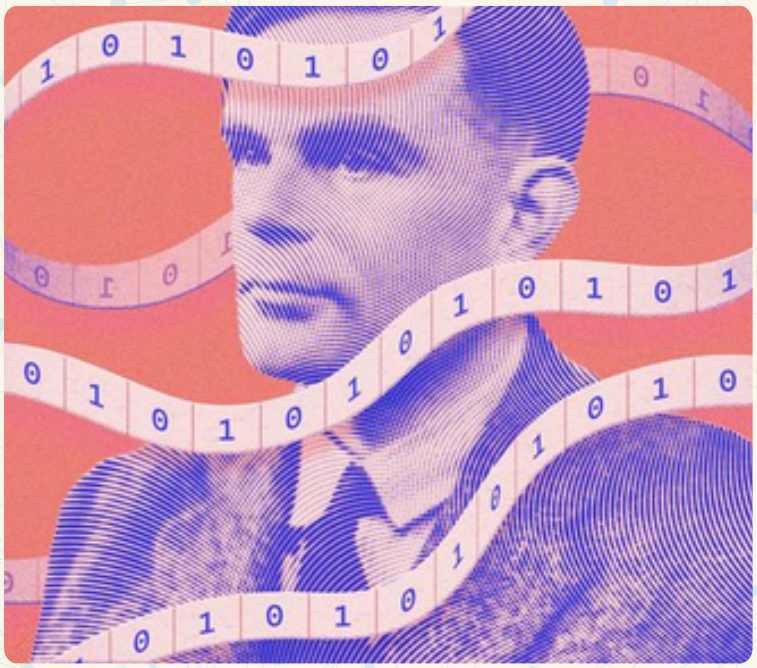


Image credit: Quanta magazine

One of the many people who laid the foundation of artificial intelligence.

Turing was a mathematician and logician proficient in areas of cryptanalysis, logic, philosophy, and mathematical biology. He is famously known for his role in World War II, where he developed the 'Bombe', a device used by British cryptologists to help decipher and decrypt German secret messages.

Turing provided the foundation for modern computing, creating the Automatic Computing Engine (ACE). He also proposed the Turing machine, a theoretical model that became central to computer science. Furthermore, Turing proposed the Turing test, which determines whether a machine can exhibit intelligent behaviour that is indistinguishable from that of a human. The Turing Test remains influential in AI research.

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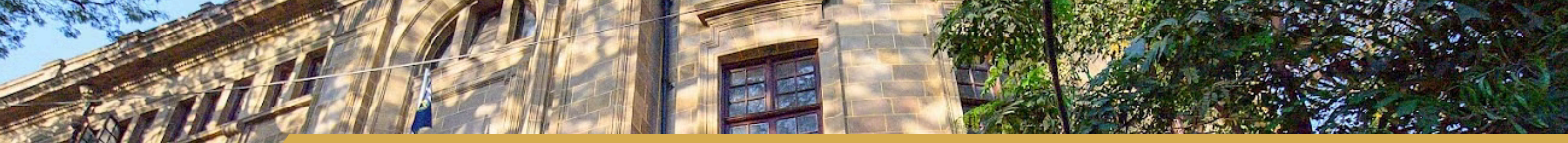

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