

Australian General Semantics Society

Webinar

Exploring the intersection of generative AI and human communication: Insights from Jung, Korzybski and McLuhan

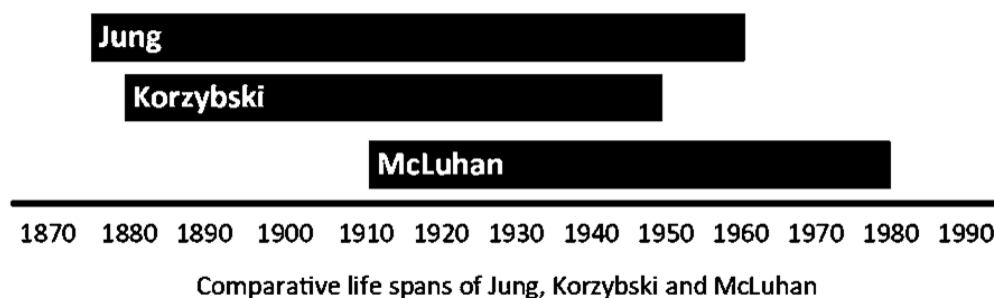
John Gillam

With the assistance of ChatGPT for idea generation, editing and proofreading.
22 July 2023

Introduction

“Generative AI” refers to a subset of artificial intelligence (AI) techniques and algorithms that are designed to create new content, such as text, images, music, or videos, that resembles human-created content.

Carl Jung (1875-1961), Alfred Korzybski (1879-1950), and Marshall McLuhan (1911-1980) were influential thinkers whose ideas have greatly contributed to our understanding of human communication which has significant relevance to the development of generative AI. Each of them provides a unique perspective and a set of concepts that shed light on the intricate nature of communication and its implications in the digital age. Moreover, they were all contemporaries during their careers.

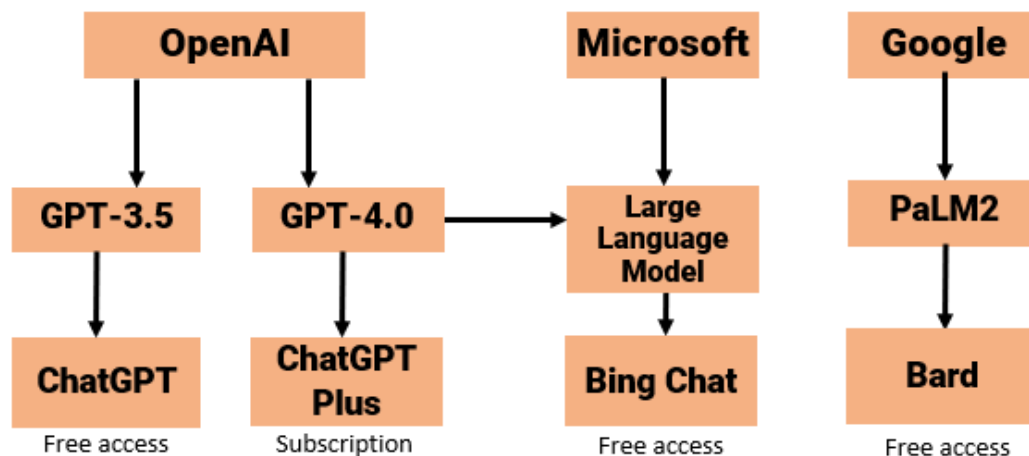


While there is no evidence of direct interactions between these three thinkers, their ideas and theories share common themes and influenced subsequent scholars and researchers. It is possible that they might have been aware of each other's work through academic networks or publications.

However, there are some shared common themes in their work. Jung believed that perception is shaped by unconscious patterns and archetypes. Korzybski believed that language can distort our understanding of reality. McLuhan believed that media and technology can shape our perceptions and cognitions.

Training the generative AI large language models

The best-known large language models are currently operated by Open AI with their GPT-3 and GPT-4 models which both have ChatGPT as their user interface to create human-like responses to queries commonly known as “prompts”. The other available large language model is run by Google and is known as PaLM2



These large language models are a form of artificial intelligence trained by absorbing the contents of books, journal articles, and web pages. This process enables them to grasp the patterns and relationships among words, allowing for customised generation, summarization, or translation of information. Some important questions arise: Who is responsible for curating the training data? How is the material filtered to address concerns such as misinformation and biases? And, what happens with data that is inaccessible due to paywalls or passwords?

The intersection of Jung's work with generative AI

Language is our indispensable tool for communicating with others, but at the same time, it is also the instrument that isolates us from one another.
Jung (1963), *Memories, Dreams, Reflections*.

Carl Jung was a renowned Swiss psychiatrist whose theories on the collective unconscious and archetypes provide valuable insights into understanding human cognition and the symbolic language that underlies communication. His emphasis on the importance of symbols, myths and dreams in shaping human behaviour offers a foundation for exploring how generative AI can tap into the collective knowledge and experiences of humanity to create meaningful and contextually relevant content. By recognising the power of archetypes and the deeper layers of meaning, generative AI can be trained on a dataset of human-created content that includes symbols, myths, and dreams. This would allow the AI to learn the meaning of these symbols and how they are used in human communication.

Although Carl Jung's writings do not explicitly discuss generative AI, some of his ideas offer insights into human communication in the context of that technology. Particularly, Jung's concepts surrounding the "collective unconscious", the persona and individuation shed some light on the psychological aspects of generative AI communication.

The collective unconscious

Jung proposed the concept of the collective unconscious as a reservoir of shared symbols, archetypes and experiences that exist beyond individual consciousness. In summary, Jung's writings suggest that language and semantics are not purely rational processes but are deeply influenced by unconscious factors. Thus, it is important to explore the psychological dimensions of language and understand how communication can be shaped by unconscious influences; by attributing one's unconscious desires, fears and qualities to others; and, by the search for self-expression and meaning.

The persona

Jung described the persona as the social mask or façade that individuals present to the world. It represents the way we want others to perceive us and the roles we play in different social contexts. In the context of generative AI, individuals may interact with AI-generated personas, chatbots, or virtual assistants that are designed to simulate human-like interactions. This raises questions about the authenticity and genuineness of these interactions and how they impact our understanding of self and others.

Individuation

Jung emphasised the process of individuation involving the integration of conscious and unconscious aspects of the self to achieve psychological wholeness. Generative AI can impact this process, influencing self-perception and identity development. For someone using ChatGPT, the exposure to diverse perspectives and the influx of information can both broaden and challenge an individual's beliefs and self-perception. This interaction with various viewpoints can contribute to the process of individuation, allowing individuals to integrate new experiences and ideas into their evolving sense of self.

The intersection of Korzybski's work with generative AI

Alfred Korzybski was a Polish-American philosopher and semanticist who focused on the role of language in shaping our perception of reality. His work highlights how our choice of words and the structure of language influences our thoughts, beliefs and interactions. He emphasised that language and communication are inherently limited and imperfect representations of reality, often distorted by our own subjective experiences and biases. In the context of generative AI, Korzybski's ideas prompt us to critically examine the limitations and biases embedded in the training data and algorithms used to generate AI-driven content. This is what Korzybski called the "map-territory" relationship. By recognising the inherent gaps between the map (data) and the territory (reality), we can strive for more accurate and unbiased

generative AI systems that better reflect the diversity of human experiences.

Korzybski's work in general semantics reminds us of the importance of language and communication in shaping our perceptions and behaviour. Overall, his insights recognise the inherent limitations and potential pitfalls in using language. He emphasised the importance of context and perception in communication and encouraged conscious evaluation and reflection about how we use language.

Language as a symbolic abstraction

Korzybski regarded language as a symbolic abstraction rather than a direct representation of reality. Words and symbols are not the things themselves but representations of our subjective understanding of them. This insight highlights the importance of recognising the limitations and potential distortions of language when we communicate and interpret information.

The importance of context

Korzybski emphasised the significance of context in determining the meaning of words and symbols. The same word can have different meanings depending on the context in which it is used. Understanding this helps to avoid misunderstandings and promotes clearer communication.

The role of perception

Additionally, our individual perceptions are subjective and can be influenced by various factors such as personal experiences, cultural backgrounds and biases.

Time binding

Korzybski also extended Jung's "collective unconscious" concept into the realm of accumulated human knowledge. He called this "time binding" highlighting humanity's ability to accumulate knowledge and

transmit it across generations. This insight emphasises the importance of building upon the knowledge and experience of previous generations to continually refine our understanding of the world. It encourages us to be open to new ideas and perspectives and to value the collective wisdom of other humans.

Overall, Korzybski's work on general semantics has had a profound effect on linguistics, psychology and communication. His ideas on language, abstraction and the role of perception provide valuable insights into the challenges and considerations surrounding the development and use of generative AI.

The intersection of McLuhan's work with generative AI

Marshall McLuhan was a Canadian philosopher, academic and media theorist who gained fame in the 1960s for explaining the impact of television, radio and cinema on our lives. He became a leading figure in media studies. His work focused on how communication technologies shape human perception, cognition and social interactions. In the context of generative AI, McLuhan's insights remind us to consider not only the content generated by AI but also the medium through which it is delivered. The medium influences the way information is received and interpreted, and, thus, understanding the medium's effects is crucial for optimising generative AI systems.

McLuhan recognised that technology shapes human consciousness and society. His exploration of various media, such as the printing press and television, sheds light on the profound transformations brought about by these inventions. While McLuhan did not specifically address generative AI in his writings, his ideas provide a framework to examine the implications of this technology.

Technology as an extension of human capabilities

McLuhan also explored the idea of technology being an extension of human capabilities. He argued that tools and technologies act as

extensions of our physical and mental faculties and, thus, alter our perception and experience of the world. Generative AI, as an extension of human cognition, has the potential to shape communication practices by augmenting our abilities to generate and process information.

Personalisation

Social media were regarded as a breakthrough in the creation of personalised content, but these platforms rely on algorithms to curate and deliver content based on user preferences and behaviours. Now, generative AI can take this personalisation to a new level by tailoring content directly to individual users' needs and preferences. This level of personalisation can lead to a highly customised and immersive communication experience.

Deepfakes

Another aspect of generative AI is the creation of deepfakes which produce highly realistic synthetic media that can mimic real individuals and events. McLuhan often quipped that "The medium massages the message", misquoting himself, but nevertheless very relevant as deepfakes blur the line between truth and falsehood, challenging the authenticity and reliability of the information we encounter. This has profound implications for communication dynamics, as the manipulation and dissemination of synthetic content can significantly impact trust and undermine the integrity of online interactions.

Conclusion

The convergence of Jung's psychological perspectives, Korzybski's work on general semantics and McLuhan's media theories combined with the emergence of generative AI reflect the dynamic nature of communication in Western civilization. The advent of generative AI introduces new possibilities and complexities to the communication landscape, and it becomes imperative to critically analyse the implications and ethical considerations associated with the evolving understanding of communication.

We need to understand the impact that generative AI is having on our cultural norms, social interactions, and identity formation because they redefine how individuals express themselves, connect with others, and navigate the digital landscape.

To cope with the positives and negatives of communicating using generative AI, several areas for consideration include:

- Media literacy and critical thinking to develop skills to evaluate and critically analyse AI-generated content and information.
- Mindful engagement with generative AI to be aware of your own habits, emotions and reactions when using generative AI and engaging with AI-generated content.
- Privacy and data protection settings to understand and manage privacy settings and data protection measures when using generative AI systems.
- Critical evaluation of AI-generated content to exercise caution and scepticism when consuming AI-generated content and verifying information from reliable sources.
- Ethical considerations for AI development to promote ethical practices in the development and deployment of generative AI systems, including transparency, fairness and accountability.
- Digital detox and self-reflection to establish a healthy relationship with generative AI.
- Continuous learning and adaptation to keep up with advancement in generative AI; to stay informed about its impact; and to adapt your communication practices accordingly.

It is important to be aware of these limitations when using ChatGPT or any other generative AI system. Always be sure to verify information from multiple sources before taking any action based on it. And, if you are ever unsure about the accuracy or reliability of a piece of content, it is always best to err on the side of caution and avoid sharing it.

With a little bit of caution and awareness, you can use generative AI to your advantage and enjoy the many benefits it has to offer.



Bibliography

The foundational books by Jung, Korzybski and McLuhan that relate to this topic are:

Carl Jung: The Archetypes and the collective unconscious. Originally published in 1959.

In this seminal work, Jung explores the concept of the collective unconscious, which is relevant to understanding the psychological aspects of generative AI communication. It delves into the collective symbols and archetypes that shape human behaviour and communication.

Alfred Korzybski: Science and sanity: An introduction to non-Aristotelian systems and general semantics. Originally published in 1933.

This book is considered to be Korzybski's magnum opus and provides a comprehensive introduction to general semantics. It explores the role of language, abstraction, and perception in shaping our understanding of the world and offers insights into the challenges and considerations surrounding the development and use of generative AI.

Marshall McLuhan: Understanding media: The extensions of man. Originally published in 1964.

This influential book by McLuhan examines the impact of media and technology on human consciousness and society. It explores how different media forms shape our perception, communication, and culture. While McLuhan did not specifically address generative AI, his ideas provide a framework to analyse the implications of this technology and its transformative power in communication. The quote, "The medium is the message" comes from chapter 1.

Marshall McLuhan: The invisible environment: The future of an erosion. Article published 1967 in the journal *Perspecta*, volume 11, pages 161-167.

This article appears in the peer-reviewed journal *Perspecta* from Yale University. It explores how technology is changing our perception of the world. McLuhan emphasises the role of media in shaping our perceptions and warns of the potential dangers of technology. The article includes the quote, "The next medium, whatever it is ... will include television as its content, not as its environment ..." on page 164.



John Gillam

John is a retired librarian and technology innovations officer with the National Library of Australia. He participated in the preservation of decaying celluloid movies in the national collection by working on the introduction of videodisc recording. Additionally, he contributed to cost reduction efforts through the introduction of an online national shared bibliographic database of publications. Later, he devoted a decade to working on the team that developed the Australian national satellite system, which ultimately led to his appointment as the European manager for a leading Australian telecommunications company. During that time, he forged international partnerships and fostered cooperation. Even in retirement, John's unwavering passion for innovation persists. He remains actively engaged in the dynamic landscape of computerised translation services and has immersed himself in the captivating realm of generative artificial intelligence.

Author email: john-gillam@bigpond.com