Exploring Artificial Intelligence and Its Inexorable Infiltration of our Future

Observations from my Strategic AI program at USF

Thom Smith MAY 30, 2025





Two classic cinematic films, 2001: A Space Odyssey (1968) and War Games (1983), offered the public early glimpses into the concept of artificial intelligence. In the former, the rogue AI computer 'HAL 9000' is ultimately neutralized by disconnection – an act that underscores the machine's lack of humanity. In War Games, the supercomputer 'WOPR,' whose primary purpose was to learn, is defeated through logic – learning, through a game of tic-tac-toe, that some battles are unwinnable. Both movies highlight our hopes and fears of AI: its potential power, its limitations, and the crucial role of human reasoning in keeping it aligned with our values. Today, the AI concepts featured in these films are playing out in real life.

Watching AI develop over the past few years, I found myself navigating an overwhelming flood of information about AI – some insightful, some speculative, and much of it difficult to evaluate among competing opinions. Not only is the vocabulary of AI like a foreign language, but the underlying science is equally complex and intimidating. It was clear, however, that I needed to learn more about it because AI is a major driving force of change, shaping our personal experiences, professional environments, and our connected world.

As I shared last year, I had the privilege to serve as an Advisor to the Strategic Artificial Intelligence program at the University of San Francisco School of Management. To meaningfully

contribute as an advisor, I enrolled in the same course of study as the students. My expectation was not to become an expert in AI, but simply to become better informed. The experience of completing the program not only met my goal but proved especially valuable.

The USF course helped me build a solid foundation in AI and I gained valuable insight as to how a wide range of industries are integrating AI into their operations. Importantly, the working knowledge I gained will enhance my ability to more effectively evaluate the increasing volume of publications, expert commentary, and AI applications being introduced each day.

Understanding AI Beyond the Buzzwords

In our studies, we investigated the core components of modern AI, from data & algorithms to machine learning, neural networks, and deep learning. Through expert-led videos, in-depth technical articles, and hands-on practical exercises, we explored tangible AI applications across various industries. This helped me separate truth from fiction and better evaluate the functional potential of AI in numerous business applications and contexts. I also learned that AI delivers the most value where it can harness pattern recognition, process complex data at scale, and enable faster, more informed decision-making – unlocking transformative efficiencies and insights. It is remarkable to see the progress AI has already made in medicine, manufacturing, transportation, and cybersecurity.

Notably, the seemingly unlimited potential of AI – often magnified by investor sentiment – was balanced by the broad range of perspectives that we explored. While AI's ambitions seem infinite, realizing those ambitions will ultimately depend on time, societal acceptance, and thoughtful & responsible implementation. Overall, I find AI fascinating and I look forward to the positive impact it can have on humanity.

Among the many dimensions of AI we explored, I've chosen to highlight just two key themes that most challenged me to think deeply about how AI will affect our world.

What is AI?

The term 'artificial intelligence' was first coined in 1956, and it has shaped our understanding and expectations of intelligent systems ever since. In simplest terms, AI is designed to perform repetitive tasks, freeing human resources to work on higher impact problems. We see this in AI powered chatbots to manage routine customer inquiries, AI-controlled robots that perform tasks like assembly, welding & quality control, and self-driving cars. Those of us in the insurance industry are familiar with algorithms that analyze large datasets quickly and efficiently while identifying insightful patterns and correlations. Many insurance entities have already realized the benefits of AI in claims and underwriting, both specialties producing sufficient and relevant data from which AI can be trained to perform higher level tasks.

In the minds of scientists immersed in Al's development, however, lies the pursuit of Artificial General Intelligence (AGI) – systems capable of performing any intellectual task that a human can and potentially accomplishing it better. This ambition points toward the concept of a hypothetical moment when Al surpasses human intelligence and begins to evolve at an exponential, uncontrollable pace. Does that sound like Hal 9000 or WOPR?!



This vision of the future brings with it not only the promise of rapid innovation, but also the reality of uncertainty and risk. While the idea is both fascinating and provocative, it's also hotly debated

The bold new world of Artificial Intelligence evokes equal measures of boundless excitement and nervous apprehension. – many experts question whether true AGI is even possible, let alone inevitable. Several well-known AI experts have called for a pause in AI development, citing the need for caution and ethical oversight, while many governments around the world are actively working to establish regulations to set boundaries on its use. Obviously, it is imperative to balance the pursuit of scientific advancement with the ethical principles and values that underpin a healthy society.

Responsible Al

The unprecedented acceleration of AI development has introduced several challenges that will significantly influence the extent to which it will be embraced by society.

Inaccuracy – even the most sophisticated algorithms can produce unreliable or biased outputs without high-quality, well-structured, and diverse training data. In fact, when models are trained on unfiltered internet data, the results can be not only misleading but dangerously inaccurate. Scientists have also discovered that AI models 'hallucinate' or fabricate their output, with answers that are factually incorrect, nonsensical, or entirely made up, while sounding confident and plausible. And AI models can experience degradation in performance or accuracy over time, known as 'AI drift,' due to changes in the environment, data, or business context in which it operates.

Transparency v. Opacity – as AI systems become more deeply integrated into critical sectors like healthcare, finance, defense, and public infrastructure, two pressing questions remain; Can we confidently understand and explain how these models make decisions? And can we trust them to reliably perform as intended? If the architecture, training data, and/or weights¹ are made publicly available for use, inspection, or modification, the level of confidence and trust in that model will increase. Conversely, the level of trust falls when these features are kept private.

¹ "Weights" are fundamental parameters that determine how input data is transformed into output predictions.

Ethical use – in the absence of appropriate ethical guidelines and oversight, AI systems can be misused and may carry substantial bias stemming from how its data is curated and fine-tuned. Relevant examples include surveillance and facial recognition without consent, deepfakes and disinformation, plagiarism, phishing, or at the extreme, autonomous weapons and warfare.



Privacy – existing laws restrict the use or exposure of personally identifiable information (PII), yet large volumes of PII have nonetheless found their way into AI models. Cyberattacks on healthcare providers and financial institutions have, unfortunately, led to the widespread exposure of millions of PII records, many reproduced as training data for AI. Although responsible AI companies use synthetic or anonymized data that preserve statistical properties without revealing individual identity, the practice is not universal.

Intellectual Property Infringement – many AI models are trained on large datasets scraped from the internet, which can include copyrighted material – books, articles, music, art, and code. Those holding 'rights' argue that this unauthorized use constitutes piracy or infringement of intellectual property. Privacy and copyright raise significant legal, ethical, and trust-related challenges – many of which are already the subject of active litigation.

Unchecked, AI may dramatically increase the volume of content that feels functionally free to use, whether legally sanctioned or not. Historical precedents, including the advancement of nuclear technology, genetic engineering & cloning, and algorithmic social media systems, reveal a consistent pattern: scientific innovation accelerating faster than societal understanding and regulatory preparedness. This tension has given rise to complex challenges that persist today with AI. However, AI demands thoughtful abstract reasoning due to its application across many different professions, scientific fields, and industries – each with its own standards, practices, and ethical standards.

In Summary

Al is making inroads into every industry, offering significant potential to enhance efficiency, reduce costs, and advance analytics. While some early adopters have embraced Al enthusiastically, others remain cautious – mindful that over 80% of organizations have not yet observed a tangible impact on enterprise-level earnings (EBIT) from their use of generative Al². Either approach to Al adoption has merit, depending on an organization's readiness, risk appetite, and strategic priorities.

² McKinsey & Company, The State of AI: How Organizations Are Rewiring to Capture Value, March 12, 2025.

By approaching AI adoption with clear intent and disciplined execution, organizations can cut through the hype and harness its true potential as a driver of innovation, operational efficiency, and sustainable growth.

Artificial intelligence appears at once imperceptible and pervasive, embedded within our everyday devices – smartphones, televisions, automobiles, wearables, and computers – often functioning silently in the background. In many cases, we don't even realize we're interacting with AI because it's seamlessly integrated into the services we use and the products we buy. While few

The potential of AI won't pause while you evaluate it.

would dispute the remarkable benefits AI can deliver, these advantages must be weighed carefully against concerns around accuracy, transparency, security privacy, and infringement. The true challenge lies in striking a thoughtful balance – one that enables innovation without compromising the core values we hold as a society. Only then will AI earn the trust it needs to be fully embraced.

At G. J. Sullivan, we are following the lessons learned through the Strategic AI program at USF as we work to adopt AI. Thanks to the foundation built through this program, our AI journey is more focused and deliberate – enhancing confidence in both the partnerships we are forming and the benefits we envision for our company and our clients.

