

## **The Unstoppable Rise of AI: An Interview with Dr. John Sanford, Spencer Burrows, Anna Birchler**

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### **Abstract**

The rise of artificial intelligence (AI) technology is transforming various aspects of society, impacting fields such as education, art, and communication. This article explores the current and potential applications of AI and the implications they have for individuals and society. Examples of AI utilization range from assisting students in completing assignments to generating art that raises copyright concerns. While AI can enhance productivity and facilitate communication, it also poses risks such as academic dishonesty and psychological manipulation. The workforce may experience shifts, but AI is predicted to bring more positives than negatives, especially in terms of productivity and cross-cultural communication. However, the most worrisome consequence of AI could be its potential for psychological manipulation, leading to misinformation and propaganda. Additionally, AI-powered entertainment, such as video games, may pose challenges to human self-control and motivation. As AI continues to evolve, it is crucial to consider ethical and moral implications, ensuring that its development aligns with principles of kindness and integrity.

**Keywords:** *artificial intelligence (AI), education, ethics, psychological manipulation, workforce.*

An undergraduate student, unable to complete his English essay, types his instructor's prompt into a chat application, automatically generating a fully completed draft. An aspiring chess player hones his ability to play against an autonomous chess system. A judge, trying to render a just verdict for her court case, consults an AI program to determine potential sentencing. A police officer, seeking to prevent crime before it happens, consults an artificially intelligent ' profiler, ' whose biased algorithm directs him to patrol the wrong neighborhood. A realtor crunched for time uses a chatbot to generate descriptions of her property listings. A tech company releases an online video demonstration, showing their capability to create a fully functioning robot that can walk, run, and do backflips off terrain. All of these examples are not potential inventions of the far-flung future, but real applications of artificial intelligence technology that exist in the present day. Despite Hollywood's depiction of artificial intelligence solely in the form of killer death robots decades into the future, AI is much more versatile - and far more dangerous - than any killer robot could be. As artificial intelligence develops at a breakneck pace, its effect on our society will increase exponentially.

The term artificial intelligence was coined in the mid-1950s by John McCarthy, the 'father' of artificial intelligence. He defined artificial intelligence to be "the science and engineering of making intelligent machines" (Teneo AI, 2023). Intelligent machines are anything that perceives, analyzes, and explains information. Artificial intelligence can take the form of dystopian, seemingly omnipotent supercomputers, but can also be Netflix recommendations, Siri, and searching on Google. Because of its ability to learn by itself, breakthroughs in artificial intelligence are made progressively every year. According to Dr. John Sanford, a professor at UCSD specializing in AI, "In 2012 I was an AI expert...now I'm constantly reading to keep up because [the field] moves so fast" (J. Sanford, personal communication, 11 February 2023).

Understanding artificial intelligence requires constant curiosity and work to research and learn about the next big application.

Enter ChatGPT. Launched in late 2022, ChatGPT has already been used by over 100 million people worldwide (Indah, 2023). Its public success is largely based on its ability to provide personal, custom responses to all manner of questions. ChatGPT's effectiveness surprised Dr. Sanford, as he notes: "It's astounding. This is only version [4.0]. What's version 10 going to be like?" (J. Sanford, personal communication, 11 February 2023). ChatGPT has been especially useful to students in academia, for better or for worse. ChatGPT can help students review essays, distill down research, and help solve complex mathematical problems. Dr. Sanford, a college professor, even asked ChatGPT to translate some mathematical code in MATLAB to Python, which he had less experience in.

Though ChatGPT can help on all levels of academia, it can also hurt. ChatGPT has already been banned from New York City Public Schools, as it can enable academic dishonesty by allowing students to create essays and answer homework questions (Rosenblatt, 2023). Spencer Burrows, 11th-grade dean and high school economics teacher at Pacific Ridge School, opposes the ChatGPT ban. He has successfully integrated ChatGPT into his classroom, stating that, "If you're going to make good lessons, you have to...try a number of different things and you see what works and what doesn't" (S. Burrows, personal communication, 24 February 2023). So far, ChatGPT has worked wonders in the classroom, keeping his students more engaged and opening them up to analyzing claims and fact-checking sources. As for misuse, he notes that: "Everyone was on the computer during the pandemic—preventing academic dishonesty was difficult," states Mr. Burrows (S. Burrows, personal communication, 11 February 2023). Thus, he adds that to discourage cheating, schools must not only instill students with the values of academic integrity, but teachers and professors need to rethink how to deliver assessments, and suggests that "If students are misusing ChatGPT to write papers...maybe you shouldn't be assigning that" (S. Burrows, personal communication, 24 February 2023). Dr. Sanford, too, also actively encourages the use of ChatGPT in education, stating that "...kids should use it because it's a tool you would use in the workplace. The goal of education is to make you a productive person" (J. Sanford, personal communication, 11 February 2023). Instead of shunning new technology, the education system should learn to embrace it.

On the other hand, there have been concerns about other AI applications. Just as AI can generate text responses to prompts, it can also create images. As the technology develops, AI art becomes increasingly indistinguishable from human art. Dr. Sanford used to believe that "Humans will carry forward with creativity...I don't believe that anymore" (J. Sanford, personal communication, 11 February 2023). Furthermore, AI art can also negatively impact already created works by artists. Anna Birchler, an aspiring animation student at Chapman University, has voiced her concern over copyright infringement and stealing art, stating that "[AI Art] learns by...stealing the works of artists without crediting them...this can get really really messy when AI artists sell...art they made...they're essentially stealing other people's work" (A. Birchler, personal communication, 12 February 2023). This stealing of work has caused uproar in many artists, and even led to a lawsuit, spearheaded by GettyImages, for stealing content (Vincent, 2023). "I think there should be something done...to limit the pictures the software is able to learn from" says Anna Birchler (A. Birchler, personal communication, 12 February 2023). There have

also been concerns in other chatbots like ChatGPT. Recently, a program like ChatGPT was set to be integrated into the web search engine Bing. According to Mr. Burrows, “[A reporter] started playing around with it and it went...horribly wrong...[it] went to some places that got dark” (S. Burrows, personal communication, 24 February 2023). The AI would say inappropriate things and could easily be manipulated to serve malicious purposes. Mr. Burrows was less concerned about the AI’s potential utility and more about the AI’s lack of safeguards – “Where would this thing *not* go?” (S. Burrows, personal communication, 24 February 2023). AI is irrefutably powerful in its current form, but it still is far from flawless. “[These bots] aren’t perfect,” says Mr. Burrows, “and as amazing as they make things look and sound, there are definitely holes” (S. Burrows, personal communication, 24 February 2023).

In its current state, AI is far from being a perfect solution or large problem. But what about the future? Artificial intelligence could pose a large threat to society in the coming years, but not in the way some may think. One of the most asked questions regards its effect on the workforce; will it create massive unemployment and take jobs from humans (Gavrilova, 2021)? Specifically, careers like being a lawyer have been put in the metaphorical ‘crosshairs’ of AI. However, Dr. Sanford thinks there will be little disruption in the job’s market. “I think they’ll still be lawyers, but it’ll be a different profession” (J. Sanford, personal communication, 11 February 2023). In fact, he thinks there will be more positives in the workforce than negatives: “It will boost everyone’s productivity...but it can also...navigate communication better...Language differences, cultural differences? You have something now that can kind of get past that” (J. Sanford, personal communication, 11 February 2023). By being able to translate large parts of invoices, finances, and other types of documents, work communication could be more streamlined and easier for everyone. Instead of unemployment, Dr. Sanford sees another subject as the most worrisome result of AI: “I do think that there is one near term risk – psychological manipulation” (J. Sanford, personal communication, 11 February 2023). He sees its effects being present across all parts of society. “[Humans] are very vulnerable to manipulation,” states Dr. Sanford (J. Sanford, personal communication, 11 February 2023). Manipulation can range from influencing consumers to buy a company’s product, but also be used in propaganda. “If you took a...Vladimir Putin that wants to change the way Americans think...whoever, you can disseminate that over lots of types of social media...If we see it in [multiple] places we trust, well, then it becomes fact to us” (J. Sanford, personal communication, 11 February 2023). More effective forms of propaganda or misinformation can now be spread under the tactful, watchful eye of an intelligent AI algorithm. AI could also damage a human's desire to learn and succeed entirely. It is no secret that the brain loves dopamine – video games are something that capitalizes on this need. With the power of AI and progress in visual graphics, games could not only become indistinguishable from real life, but keep you there as long as possible. “What if the game is just so compelling that I don't care if I flunk out?” asks Dr. Sanford (J. Sanford, personal communication, 11 February 2023). This technology could completely rewire a human’s brain into one solely craving playing games. “...I’m worried,” says Dr. Sanford, “I don’t know what [we] can do about that. These things are here to stay” (J. Sanford, personal communication, 11 February 2023).

As discoveries are made in the field of artificial intelligence, its influence is becoming continually prevalent in an ever-progressing society. From a fledgling idea in just the 1950s, AI has come a long way in such a short time. With each potential good use of artificial intelligence

comes a potential unintended consequence, some that can far outweigh any benefits reaped from AI research. Regardless of intention, malicious inventions are always created and can't be unmade. Instead of focusing on profits and neglecting thorough testing, it is up to our generation and future generations to guide the development of AI with a priority on morality, kindness, and ethics.

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