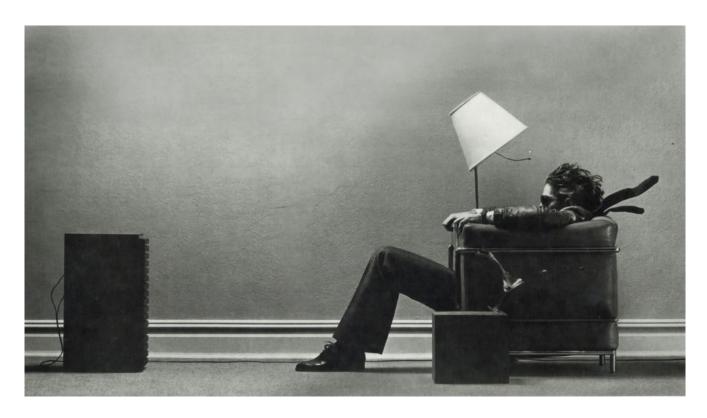
Beyond Memorex: AI and DeepFakes Threaten our Humanity, Security, and May Rewrite History

by John Henry (October 2022)



Night Flight of Dread and Delight, Skunder (Alexander) Boghossian, 1964

Memorex had an effective advertisement, whether a still shot or moving image on TV. It was implied that you couldn't tell if the sound was straight from a record lp or live, or from their recording tape. What was the 'real'?



Recently at a Colorado art festival, the winner in the digital art category was vilified for using AI to create his entry and beating 20 other artists who used advanced computer graphics to create their "original" pieces. This is Jasen Allen's submission:



Recording voice and music first on a gramophone was as earth shattering as recording images on photographic plates and then developing moving pictures or film. It changed things. Our culture and sensibilities were altered. Film of course threatened theater. Now film, television, online gaming, social media posts, pushed content, lazy texting, etc. has reduced a large measure of literacy in my estimation. Very few read books anymore. The libraries are de facto extinct.

As photography irked artists when first introduced—fast forward nearly two hundred years—writing and images are now difficult to discern whether real or digitally manufactured. There is a way to decipher the fake now, but by the time that is done, the cat is out of the bag—and means are being taken to cloak the evidence to where we may never know if what we see and read is real at all.

Sci-fi films are astonishing and believable due to CGI. That same technology is now used to design clothes, automobiles, and other products in development stages. Creative artists, industrial designers, and product sculptors/modelers are being

replaced by data storage mined and manipulated by newly minted ex-gamers and digital artists who can create altered and reworked images of cars, buildings, clothes and consumer products.

Voice recognition to printed words was another breakthrough. Now voice can be synthetically made to replicate any human being's timber, tone, measure of speech, etc.

So now CGI and AI can create an avatar that is nearly identical to the movement, look, and speech of any human being. It has gone way beyond Nat King Cole singing with his daughter, a very cleverly created video. That was 1992.

Movies are becoming more sophisticated with their digitally created characters acting and speaking as humans or aliens using up to date digital technology. No need for actors. Actors, like fine art painters, architects, musicians, and designers of all kinds, are equally annoyed by this development. The irony is that digital artists are going to be replaced as well while their own content is digitally reworked using AI methods.

What happens when you meld high tech computer graphics and animation with artificial intelligence programs?

There are avatars online now that will respond based on learned commands and familiarity with your preferences. This is something similar to Siri and other digital assistants, and these can be of your own creation. Meta (formerly Facebook) is a new virtual reality world where you can opt to inhabit a totally made-up existence and interact with others who likewise would rather live in make believe, a new shared reality.

Here is Tom Cruise playing guitar, the entire video is digitally manufactured:

A quick look at how it was done:

This is a rudimentary example. The process has become more advanced and accurate since having been created a year ago. And several software programs using this same level of state-of-the-art computing are going open source. Anyone can do this. Think about the implications.

New musical compositions can be created using AI from an amalgamation of classical scores or contemporary pop music since "most music also adheres to a set of implicit and explicit algorithms with regard to form, rhythm, phrase structure, and phrase length" —George Predota.

See classical music created using AI by David Cope.

Here is ''John Lennon' singing songs he never conceived or recorded. And this is only the beginning of the use of this technology.

A more sophisticated and up to date take on faking reality and imagining futures had been accomplished using Stable Diffusion technology (deep learning image synthesis). It "allows anyone with a PC and a decent GPU to conjure up almost any visual reality they can imagine. It can imitate virtually any visual style, and if you feed it a descriptive phrase, the results appear on your screen like magic."—Arstechnica. A new AI system termed DALL.E2 creates realistic images and art simply through verbal description! Another, midjourney, created the AI entry that won best of show in the Colorado contest above.

Here is a look at a futuristic city imagined and punched in by architect Manas Bhatia. Remember, a certain amount of visual content (conceptual art and photos of living environments conceived by yourself or others) is the core from which AI is generated:



Bhatia concedes with a tinge of hope: "an artist can use any kind of tool there is to create art. Anyone can use AI, but they won't be able to achieve as good a result as a creative person." Renowned architect Tadao Ando does not believe AI should be used for creating new buildings:

"While I am excited about new technologies and believe they are useful in many cases, I am concerned about a future where architecture is created solely through the selective sorting of past data.

In addition to the functionality, economy, and technology that make up a predetermined harmony in a building, an architect's intervention brings a bit vague and contradictory odds with reality. It is these odds that make architecture unique and legitimize architects as a profession. The physical experience, embodied memory, and bodily senses of an architect are more reliable than the vast accumulation of data or its processing speed in a computer."

Here is a more baroque example via manipulation of selected data by architect Mohammad Qasim Iqbal (which frankly reminds me of the accidental integration of a scientist and The Fly in a movie by the same name):



You've probably come across articles, product descriptions, or blogs recently and wondered why the sentence structure seemed odd—something was just not right? I had noticed summaries of stock company P/L statements and overall descriptions that just didn't seem natural. Most likely these were developed by machine language algorithms, part of Artificial Intelligence technology. It is replacing copywriters and a slew of like wordmeisters.

How AI works for word composition is that basic subject/content background information and hard data is entered into the input area (the more complete, the better), a genre of writing is selected, the length of the required article chosen, and poof—a relatively readable and believable group of paragraphs are spit out that are tied together with proper sentence structure and some form of meaning. You can even select a tone of voice: serious, joking, sarcastic, etc.

All editable. The advantages are that you never have to start from a blank piece of paper again. All formattable. There goes authorship.

It is estimated that 30% of online written content is created by bots. Bots can write articles after amassing a certain amount of basic data—automatically programmed. They can respond endlessly back and forth in a realistic discussion format. This is machine code imitating human activity on messaging apps and social media. You may not really know if the person to whom you are corresponding is real or a web robot. It can be about products, personal issues, or politics.

Amazon has something called Polly: "Turn lifelike speech using deep learning." Another consumer version is named Jasper. It can crank out blogs, video descriptions, newsletter posts, advertising copy, small novels even. AI is here now, for anyone to use!

Think of the faking possibilities. Take a typical political speech and let the machine language have its way. Add a few naughty things and release it to the media. Combine with a realistic video.

We are witnessing the start of the "fourth industrial revolution": machines that do our thinking, writing, and creative output while generating imaginary worlds and figures. "The definition of AI is broad, and encompasses data mining, natural language processing, and machine learning." —Big Commerce.com

Our biggest consumer concern of late is data mining—a loss of personal information and privacy given over to online commerce giants. We get pushed advertising and product based on our past performance online. Meta, of course, is a clever way to cloak <u>surveillance capitalism</u>.

Do you recently recall the ex-Google engineer who claimed that the company had developed a sentient AI algorithm? Blake Lemoine claimed that LamMDA (Language Model for Dialogue Applications) had a soul, and "goals of its own." The AI artist Jason Allen stated that he was skeptical to try it at first due to 'spiritual reasons.' He recalled Elon Musk having compared AI to "summoning the demon" and that working in AI could be "a gateway into communicating with the unknown."

Of course this type of work leads to end of world apocalyptic notions such as in The Terminator movie and others, where machines take over using humankind's data as a base. And robots are becoming more apt to mimic humans:

"The humanoid <u>robot</u> CyberOne from Xiaomi hopes to befriend anyone it meets using its <u>artificial intelligence</u>—based interaction algorithms that allows it to detect 45 classifications of human emotion and recognize 85 types of environmental sounds." Watch the demo.

I love the song: "In the Year 2525", written in 1969, which basically foretold the end of humanity:

In the year 3535
Ain't gonna need to tell the truth, tell no lie
Everything you think, do and say
Is in the pill you took today
In the year 4545
You ain't gonna need your teeth, won't need your eyes
You won't find a thing to chew
Nobody's gonna look at you
In the year 5555
Your arms hangin' limp at your sides
Your legs got nothin' to do
Some machine's doin' that for you

We are said to be in a postmodern world where feelings trump fact and convention of any kind. Subjectivity is more important than objective truth. Can we really maintain or build upon "our own truth"? Isn't that delusional? What if our truth doesn't jive with someone elses? Does the mirror reflect the real in your mind or a subjective illusion? Or is your mind fooling you?

The meta physicists and philosophers have questioned and criticized Pravda. That truth seems to be only a personal notion and nothing else is relevant is apparently the norm right now. The incidental becomes real. Is what we read and see on our computer screens real or fake? It can be whatever the subject deems it to be. And a false narrative can be spread instantly—which is a most dangerous proposition with potentially devastating consequences.

This is not a Brave New World. Technological 'Progress' has led to a form of creative digression and moral complacence which unchecked can spell the end of us. This is a dangerous laziness. Ideally, the end of capitalistic aims is to replace everything with machines and minimize human interaction to minimize working capital and maximize profits. The essence of what we have achieved as human beings for over 4,000 years is being handed over to machines/computing and a digital universe mimicking a real one, while robbing us blind. Do I see a parallel to the Socratic shadows in the cave? This path will halt and drain ongoing invention and the creative spirit out of us, the humanity and history from our souls.

Apparently, computers have no sense of humor. The only thing I could find that AI is not very successful at creating is … a joke. Here is one process being investigated by the University of Aberdeen and a sample joke:

"What do you get when you cross a frog with a street? A main toad."

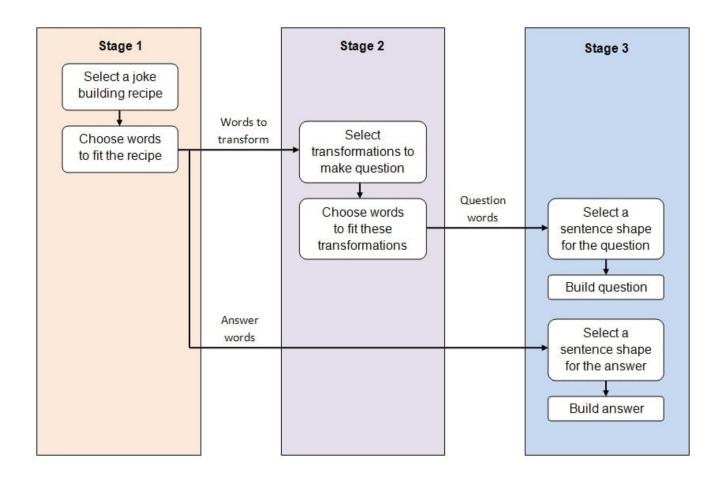


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John Henry is based in Orlando, Florida. He holds a Bachelor of Environmental Design and Master of Architecture from Texas A&M University. He spent his early childhood through high school in Greece and Turkey, traveling in Europe—impressed by the ruins of Greek and Roman cities and temples, old irregular Medieval streets, and classical urban palaces and country villas. His Modernist formal education was a basis for functional, technically proficient, yet beautiful buildings. His website is Commercial Web Residential Web.

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