HUMAN IS THE NEW VINYL

Human Creativity and the AI Revolution

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Introduction

Vinyl, Please

If you give me a heartfelt poem written by a ten-year-old kid from Michigan and a perfect sonnet written by an artificial intelligence (AI) model, I'll take Michigan every time. She's true. She's human. She has the experience of living, and her words mean something. Likewise, give me a dusty U2 record on vinyl and a digitally lossless audio version. I'll take vinyl every time.

The Year AI Got Famous

In the spring of 2023, AI erupted onto the world scene with the force of a supernova through the release of ChatGPT. It cast a dazzling white light of possibility and, at the same time, ominous shadows of doubt about the future. The "Chat" part of its name implies the conversation-style ease with which a person can enter written instructions (prompts) through a simple text window. "GPT" stands for General Pre-trained Transformer, a vastly powerful computer algorithm taught to "think" by parsing and responding to natural language and predicting the best response to any prompt.

ChatGPT immediately demonstrated a considerable comprehension of advanced mathematics, science, medicine, and the law. It exhibited an astonishing ability to write human-level text across a broad swath of subjects, including philosophy and the liberal arts. This competence had swift and substantial repercussions for education, technology, and content creation. Within two months of its release, the platform had surpassed 100 million users, making it one of the fastest-growing consumer applications

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in history. A few months before ChatGPT launched, other AI-powered text-to-image "diffusion" models, such as DALL-E, Midjourney, and Stable Diffusion, had already garnered millions of users.¹ These AI image models could generate extraordinarily lifelike photographs and multi-layered images using basic text prompts, blurring the lines between digital imagination and tangible reality. At once, I assumed similar applications of these technologies would soon gatecrash music production, making it possible for AI to generate astonishing music.

Our Growing Concern

In April 2023, my friend Brian and I hunkered down in a little cafe in the Cleveland (TN) Public Library next to Lee University to enjoy some delicious wedge salads. We had just heard that Elon Musk, Steve Wozniak, and other tech leaders signed an open letter calling for a six-month pause on developing powerful AI systems to allow for the implementation of safety protocols.²

When I first heard the news, I literally had to stop walking just to let it sink in. Wait. The "Hey, let's colonize Mars" guru and the co-founder of Apple say they want the world to tap the brakes on AI development for a minute? "What the hell is going on?!" I puzzled. One thing was clear. Icons like Wozniak and Musk saying such things were markers of chaos from behind the curtain.

¹ Will Douglas Heaven, "AI Image Generators That Create Close to Photorealistic Images Are Here," *MIT Technology Review*, March 22, 2023,

https://www.technologyreview.com/2023/03/22/1070014/ai-image-generators-photorealistic-stable-diffusion-midj ourney/

² Matt O'Brien and Michael Liedtke, "Musk, Experts Urge Pause on AI Systems, Citing 'Risks to Society'," *The Washington Post*, March 29, 2023,

https://www.washingtonpost.com/technology/2023/03/29/ai-experts-risks-open-letter/.

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Don't Mess With my Levi's

On the heels of Wozniak and Musk's pleas for an AI moratorium, another controversy exploded onto the scene. In March 2023, Levi Strauss and Company announced a partnership with the digital fashion studio Lalaland.ai to use AI-generated models in their online product photos, aiming to increase diversity and inclusion.³

The move was a disaster, sparking a fierce backlash from consumers. It got me wondering why it was OK for AI to improve phones and cars but not jeans. Was there something sacred about our relationship with denim that AI shouldn't mess with? The real issue wasn't specifically about AI-designed jeans or jackets but the erosion of the human touch in fashion and the potential impact on models' livelihoods.

Levi's clumsy response to the uproar underscores the challenges brands face when integrating AI. While AI offers benefits like efficiency and experimentation, companies must also consider the importance of human connection and the unintended consequences of replacing human talent with algorithms.⁴

I want to give Levi's some grace. They're a spirited, iconic American brand that stumbled while trying to innovate. However, their painful misstep is a cautionary tale for other companies adopting AI: balance innovation with authentic human

³ Megan Graham, "Levi's Pauses Use of AI Models Following Backlash Over Diversity Concerns," The Wall Street Journal, March 15, 2023, https://www.wsj.com/articles/levis-pauses-use-of-ai-models-following-backlash-over-diversity-concerns-2d4f6e1c.

nttps://www.wsj.com/articles/levis-pauses-use-or-ai-models-following-backlash-over-diversity-concerns-204f6efc.

⁴ Thomaï Serdari, "The Challenges of Integrating AI in the Fashion Industry," Forbes, March 22, 2023, https://www.forbes.com/sites/thomaiserdari/2023/03/22/the-challenges-of-integrating-ai-in-the-fashion-industry/

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connection—it matters to customers. Levi's' blunder is just an early example of the complexities of AI integration, certainly not the last.

The VerifiedHuman[™] Collective

As I thought about the scope and speed of AI's sudden rise, a wave of concern for the fate of creatives and educators began washing over me. At all hours of the night, questions spiraled around in my mind: "How will AI impact my friends who are authors, photographers, painters, sculptors, architects, songwriters, and musicians? What about the millions of jobs that automation could supplant? How will teachers know if a student wrote a paper, poem, or essay or if AI wrote it? Can the world tell apart what a human has produced from a machine? Will anyone care either way?"

In May 2023, I gathered a small group of friends—creatives, writers, visual artists, musicians, voice actors, filmmakers, philosophers, engineers, and human resources experts. Together, we formed a grass-roots movement called VerifiedHuman[™].⁵ Our purpose was to formulate and suggest possible approaches to the problem of human-AI differentiation in created content. VerifiedHuman[™] continues as an experiment to document our ideas and discoveries and provide resources and community for creatives and educators.

We have discovered a painful reality. The differentiation problem—telling human work from AI work—is a hard problem to solve. We'll explore differentiation in a little more detail later in this introduction. In writing, AI detection software is equally matched by AI detection-evasion software. In the realm of visual arts, AI can create lifelike images

⁵ "VerifiedHuman." VerifiedHuman, https://www.verifiedhuman.info/.

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that are indistinguishable from human-created ones. For music, maybe the most complicated of the mediums, differentiation is even trickier because many songs comprise multiple (sometimes 20 or 100) layered tracks and parts, some produced by humans, some by physical instruments, some by synthesizers, some as prerecorded samples, and others still by generative AI.

We also lament that legislation throughout history has lagged way behind technology. Laws are slow to materialize, and when they do, they're often tangential to the situation on the ground or ignored altogether. Also, we know adult humans are not primarily driven in their behavior by strictures from above but by their personal values. People usually do what they think is right, sometimes do what they know is wrong, and almost always justify their actions if they're unsure.

As is the case, we find ourselves on a twisting journey of discovery, where we hold one position early and then go back and reevaluate in light of unfolding developments in the human-AI story. Our opinions about the meaning of human-AI collaboration, the significance of AI's impact on the fields we care about, and our ability to describe the nuances accurately—much less offer helpful solutions—are continually changing. What remains is a group of stubborn humanistic optimists. We have tremendous faith in human ingenuity and adaptation, the stuff we have seen repeatedly throughout history, even in the face of extinction-level challenges. We believe humans are scrappy, and our collective story bears witness to the unyielding resilience of humans in the face of life-altering innovations.

The Swirling Chaos of Events

Putting this book together has been exciting and fun. But it has also been demanding because relevant events are unfolding in rapid fire. While events surrounding past innovations are hardening in historical concrete, today's situation is swirling, confusing, and uncertain. Writing about it is not unlike being a field reporter in an unstable political region—where events on the ground change quickly, and what they mean for the future is hard to understand.

The rate at which AI is expanding and the media's various coverage of the evolution represents a mammoth field to survey, filter, and analyze. In addition to internationally recognized news outlets like the *Wall Street Journal*, *National Public Radio*, or the *New York Times* and magazines like *Wired*, *Fortune*, *Time*, and *Newsweek*—all with impressive online presences—we also monitor popular tech blogs and subscribe to several e-news lists.

There isn't a single day when we aren't reading about or watching a new, often substantive development in the larger story. I'll give you an example of a typical day of news and articles, not including any from the above sources. Today is February 27. Here is an abbreviated list of articles in my—just today's—email inbox: "Building with AI 2024 - BrandX NYC Conference," "Students and AI—The Impending Academic Epidemic," "I said, 'do not train on my content'—did anyone listen?" "The Danger of Deep Fakes and the Importance of Ethics," "Amazing Collection of Chat GPT Prompts," "Enabling Student Success in Higher Education with Adobe Express + Firefly," "AI Automates Google Employees," and "Why Open AI's Sora is About More Than AI Videos."

These articles affirm AI's power and describe concerns about its global impact. They offer commentary about deepfakes—stunningly realistic voice, image, or video representations of actual people or events, privacy and ethics, the AI-academic crisis, job loss, and the ascension of text-to-motion pictures, all stories with implications touching millions and millions of humans. And that was before 10 a.m. It is a hot mess of fascinating information. When you read this sentence, many more remarkable things will have happened in the AI world. But you have my commitment: I will do my best to incorporate the latest essential developments until the very last moment this manuscript leaves my hands.

Perspectives

Concerning my perspective, I'd like to submit something for you, the reader, to consider. Our viewpoints are shaped uniquely by our experiences and influenced by our countries of origin, upbringing, and many other factors. The specificity of my frame of reference has become abundantly clear to me in this project, especially when researching and writing about history, the arts, and technology—all global disciplines. Since my perspective may be primarily American, some readers might see innovations and contributions from countries and regions in other parts of the world as glaringly missing.

For instance, a few weeks ago, I learned the Chinese were the first to invent modern paper and mass printing with movable type—several hundred years before the Copyright © 2024 Micah Voraritskul. All rights reserved. "invention" of the Gutenberg printing press in Germany. Most of the West wasn't aware of this because Chinese printing was far removed from the interests of European merchants, who traded in other resources rather than the written kind. Also, most of the world couldn't read, much less Chinese.

Another issue may be attribution. I usually rely on prevailing opinions from research, knowing that "prevailing" doesn't mean "most correct." It just means prevailing. For example, I have bantered with my Brazilian best friend, Roberto, about whether the American Wright Brothers or Brazilian Alberto Santos-Dumont should be credited as the "first in flight." In this book, I may give one inventor or artist "props" when another one of another time, location, or gender is more deserving. If you find this true, I hope you understand it isn't intentional. I've quickly discovered the folly of trying to fit "life, the universe, and everything" into one volume, especially considering the exploding global interest in AI.

Perspectives

As a half-Chinese-Thai, half-American writer born in Bangkok and raised in the U.S., Thailand, and the Philippines, my perspective is undeniably shaped by my unique experiences and cultural background. Educated at a liberal arts university and immersed in philosophical studies, my academic journey has further influenced my worldview. I try to be sensitive to diverse audiences but recognize my lens is inevitably influenced by my identity as a multinational American male. I have to see and write through that lens. It's the only lens I've got. Throughout my life, I've held strong convictions on various issues, only to change—even reverse—my stance after years of respectful dialogue with friends from all walks of life. These friends hold a diverse range of perspectives. While we may disagree fiercely on many things, we approach our differences with an open mind, a disposition that seeks understanding, and a commitment to value friendship over agreement.

I mention this because transparency about my background and potential biases is crucial, especially when tackling global topics like creativity, technology, and AI. I aspire to present a balanced, accessible perspective while acknowledging the limitations of my own experiences and the challenges of covering such expansive subject matter. While I have tried to be sensitive to a broad audience regarding culture, values, and guiding beliefs, I am sure I have failed someone. I hope it isn't you.

Revolutions

Our heads spin, our clocks spin, our wheels spin, our planet spins, and the moon, its romantic dance partner, mirrors in lock-step synchrony. Our earth revolves around the sun, our solar system around the galaxy, and it keeps going like that. Physically, a revolution is simply a rotation, a complete turn. Revolutions surround us. Civil revolutions have a distinctive sound—masses assembled and boiling, law enforcement megaphones pleading for order, crowds shuffling their feet, chanting in unison, voicing collective outrage and hope. In this way, revolution sounds like a coup d'état, the forcible overthrow of a government.

Vinyl records also have a revolutionary sound. They spin in revolutions per minute, or RPM. In the broader creative world, revolutions are more than rotations of a vinyl disk Copyright © 2024 Micah Voraritskul. All rights reserved.

or whimsical shifts in style. Revolutions represent the introductions of entirely new modalities of expression, redefining the relationship between the creator and their work. They reimagine how audiences engage with what they see, hear, and experience.

This book is about two particular revolutions in recent history that are strikingly parallel—(1) the rise of digital music from its analog roots and (2) the rise of generative AI in the creative fields. Both revolutions have caused quite a ruckus. The digital revolution transformed the music industry, redefining how everyone produces, distributes, and consumes music. The AI revolution is disrupting almost every industry and field on the planet.

In this book, we will together discover how AI's rise is revolutionizing five fields: (1) the field of writing—of all kinds for all purposes; (2) the field of visual arts, including photography, moving images, and all forms of visual design; (3) the field of music (4) the field of voice-acting—a more pervasive sector than most people realize; and (5) the field of education—where students learn how to create writing, art, music, and technology, and how to become responsible humans along the way. We will look at some of the progressive ways these fields have developed over history and become integral to our lives today.

I apologize to historians, specifically technology, art, music, and cultural historians. I am not a scholar or historian. I am a hopeless generalist, deeply curious about almost everything. My apology is this. Surveying developments in a range of fields in one book might be overambitious. I intend it to be purposeful—to establish how inventive, resourceful, and adaptable humans have been in their pursuit of creativity. The historical glimpses are meant to express hope for the future and show how humans have adapted, survived, and even flourished when faced with the unintended consequences of innovation.

AI's forward momentum in human history is both an opportunity and a hazard. It has the potential to help people in countless ways. But beyond the doomsday prophecies, AI poses a more immediate threat—the risk of obscuring human value. This is precisely why we established VerifiedHuman[™]. We saw the need for a space for creatives like us to celebrate the preeminence of authentic human creativity in a world suddenly fixated on AI.

VerifiedHuman[™] has no PR or marketing budget and has not received venture capital cash or investments. But we are driven by an unshakable mission: To preserve the authenticity of human-created work in an AI world by offering a transparent, values-based model rooted in human trust. Monetarily speaking, we may not sit on the "opportunities" side of the AI market, but we are situated firmly and happily on the "human" side.

The Two Differentiation Problems

What's the problem? In many cases, it's nearly impossible to distinguish between human-created and AI-generated content, whether it's a poem, a paper, an image, a song, or even a voice. Even more concerning, you might be unable to tell if you're seeing an AI-generated image or video or hearing an AI-synthesized voice on your phone instead of a real friend or family member. This inability to differentiate between human and AI-generated content is a significant issue that threatens to erode the Copyright © 2024 Micah Voraritskul. All rights reserved. distinctiveness of human creativity and expression and portends other potential harms. While the differentiation problem may not be the most apocalyptic aspect of the AI challenge, it has not been well-articulated in the broader AI discourse despite being implicitly raised in discussions about deepfakes and voice-likenesses.

There are two significant problems we face in human-AI differentiation.

The first problem involves AI making things that humans make. AI can already produce various media, including text, images, audio, and video, that are essentially indistinguishable from those created by people. Over time, telling the difference between human-made and AI-generated content will become even more difficult, if not impossible. That's what this book is about—the differentiation problem and what it means for creators.

The second differentiation problem concerns AI "pretending" to be human—AI can convincingly impersonate real people. Using deepfake videos, synthetic audio, writing, and other forms of media, AI can create content depicting individuals saying or doing things they never actually said or did. The potential for human deception is staggering. Although this book isn't about deception or misinformation per se, it would be irresponsible not to call attention to this problem and its enormous potential consequences.

Houston, We Have A Problem

As we continued our wedge salads, I told Brian I am a big fan of Jeremy Cowart, a well-known portrait photographer in Nashville. Alongside Cowart's now famous portraits of the Kardashians, Tim Tebow, and Taylor Swift, he has done projects for the Discovery Channel and People Magazine and humanitarian passion work for the United Nations. In a March 2023 email to his newsletter list—of which I am a grateful member—titled "Houston, we have a problem," Cowart described with dismay being unable to tell the difference between some photos produced by AI and actual photos of real people—taken by real people.⁶

This development in Cowart's career and our world's reality was, to put it lightly, alarming. If Jeremy Cowart—a professional who has meticulously taken, developed, and scrutinized hundreds of thousands of human portraits—can no longer differentiate between a human photograph and an AI-generated image, who can? Houston, we have a problem, indeed.

By the end of lunch, Brian and I arrived at a couple of conclusions. He speculated, "Hey, Micah, I think we're going to be at a point soon where it will be nearly impossible to distinguish between anything created by humans and generative AI, whether it's writing, visual arts, film, music, motion graphics, whatever."

Future-casting as I sometimes do, I envisioned a world where human-made and AI-generated creations became so entangled it would be hopeless to tell them apart. I imagined a world where the use of generative AI in all forms of media becomes so widespread that everyone would–by default–assume AI must indeed have played a significant role in its creation.

⁶ Jeremy Cowart, "Houston, we have a problem," Email newsletter, March 2023.

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I responded bleakly, "I think you're right. What's worse, I think a day is coming when the automatic assumption will be, 'AI probably made this _____ unless you can prove otherwise.'" It seemed plausible, possible, and inevitable.

Human is the New Vinyl

An extended metaphor supports the arch of this book. The "human" part refers to the unique personal perspectives, individuality, and creative intelligence humans bring to creative work, just as a human artist carefully crafts a unique piece for her audience. I contrast humans with the expansive capacity of artificial intelligence, which is fascinating, helpful, and almost unlimited in its computational power.

The "vinyl" part of the metaphor refers to the resurgence of the popularity of vinyl records worldwide in the past twenty years, an era almost entirely dominated by digital music. Why, against all odds, has vinyl made such an incredible comeback? Isn't digital superior? Digital delivers greater convenience, portability, durability, and access to inexhaustible music libraries.

But vinyl has something else--something at the heart of its appeal, something digital does not. It is deeply connected to musical history and culture. Records are works of art, uniquely crafted and endearingly imperfect. Vinyl is tangible, tactile, and visceral. People hold it in their hands, study the cover, read the lyrics, drop the needle, turn the knobs, and flip the record over for what's next.

Its resurrection came as a response to digital—maybe even against digital—fueled by the human desire for authenticity, tangible interaction, and nostalgia. I was unsurprised to

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learn that 'Authenticity' was Merriam-Webster's word of the year in 2023. The longing for authenticity and the human touch extends beyond the music world.

In an age of mass production and technological advancement, there is a growing appreciation for the value of craftsmanship. Take, for example, the enduring legacy of Hatch Show Print, a traditional letterpress print shop in Nashville, Tennessee, operating since 1879. Their hand-printed posters are old-world works of art. Comparably, artists like Jessica Hische and Stefan Sagmeister have been wildly successful because of their work's endearing imperfections and personal touches of hand-lettering and graphic design.

AI's fast growth has also led to an atmosphere thick with hyperproduction, super efficiency, and the ability to generate vast quantities of work quickly—and surprisingly well. AI thrives in a world careening toward faster, cheaper ways of generating content for the masses. AI has emerged as another revolution in the human story. It has already reshaped our relationship with all forms of creative expression, and we can expect this influence to expand. However, in the face of AI's extraordinary march, we find hope in the story of vinyl's resurgence.

Digital almost killed analog. Digital music's dominance once threatened vinyl's existence. But something authentic, organic, and scrappy in vinyl allowed it to survive and thrive again. Now, generative AI's superpowers loom larger than life, threatening to obscure human contribution. But there is also something authentic, organic, and scrappy in the human spirit. As vinyl made its comeback, humans will too. We always do. That's why human is the new vinyl.

People Win

Valuing human creativity in the face of technological progress is not about pitting humans against machines. It is about recognizing and celebrating the unique contributions humans bring to the table and ensuring that tech innovations enhance, rather than replace, the human experience. We don't see the dilemma as a *contest* but a *confluence* where the more important party wins. Humans can use machines to benefit human flourishing. Machines can assist their architects and, hopefully, to benevolent ends.

Let's consider the humble vinyl record as we examine the role of the human touch in a digital world. This tangible medium embodies human craftsmanship and imperfection.

We invite you to join us in advocating for the preservation of human identity and creativity as technology progresses. Let's ask the right questions and prepare for what's here and what's coming. How can AI and machine learning improve our lives without compromising the essence of what makes us human? Can we make technological progress while still preserving our unique human qualities? Let's work together to find the answers, not so machines lose, but so people win.

"The human spirit must prevail over technology."7–Albert Einstein.

⁷ Albert Einstein, as quoted in Einstein and the Poet: In Search of the Cosmic Man by William Hermanns (Brookline Village, MA: Branden Press, 1983), 65.

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