

What Does It Mean To Be Creative?
Unitarian Universalist Church of Vancouver
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What Does It Mean To Be Creative? © by Seth Moran

About this time last year I gave a sermon here at UUCV with the title “What Does It Mean To Be Human?” In that sermon I explored some of the implications for us humans about the rapid development of Artificial Intelligence – or “AI.” Much has happened on the AI front since I gave that sermon. Of particular relevance to our church, entire services were written and/or given using AI technologies in churches in Germany, Russia, and Austin (Texas). They weren’t all that good, fortunately – but, now would probably be a good time for me to reassure all of you that all of what I’ll be saying in today’s service has been generated by the fallible, balding, and decidedly hu-man SethM chatbot. Which, by the way, is me. My pledge to you all today is to let you know when I’m using somebody, or something, else’s words.

Other recent AI-related developments include the months-long Hollywood writer’s strike that was resolved last fall which was based in part on concerns about the future role of AI in the writing of movies & TV series. Also, an active lawsuit filed by writers including John Grisham and Jodi Picoult accuses OpenAI – the company that has developed ChatGPT, perhaps the most well-known AI technology -- of infringing on their copyrights by using their books to train ChatGPT. That training, in turn, allows ChatGPT to generate text that sounds very much like it was written by those authors. And indeed, a NY Times article from last fall reported that there are an increasing number of AI-generated books for sale on Amazon, giving credence to the concerns of these authors. By the way, to date Amazon has not given us consumers any way to know whether a book for sale on Amazon has been written by a human or by AI.

On the music side of things, in an open letter first published this week in Variety, the Artists Rights Alliance called on the developers of AI technologies to “stop training copycat programs and to stop using AI-produced sounds to ‘dilute the royalty pools’ paid to artists for their work.” This letter was signed by Stevie Wonder, Nicki Minaj, Elvis Costello, Billie Eilish, Camila Cabel-lo, Zayn Malik, Pearl Jam, Katy Perry, Miranda Lambert, Noah Kahan, Imagine Dragons, Rosanne Cash, and hundreds of other artists. The letter contains this fascinating sentence: “Un-fortunately, some platforms and developers are employing AI to sabotage creativity and undermine artists, songwriters, musicians, and rightsholders.”

“Sabotage creativity.” Well, there’s some fine fodder for a sermon. Let’s dive in, shall we?

As was probably apparent from the quotes in today’s readings, there’s a pretty broad range of ideas and thoughts about what constitutes creativity. To help me out in writing today’s sermon, I consulted a few oracles in my quest for a good creativity definition. The online Merri-am-Webster dictionary unhelpfully defines creativity as “the ability to create.” ChatGPT was much more helpful – it defined creativity as “...the ability to generate novel and valuable ideas, solutions, or expressions, often by combining or reimagining existing elements in unique ways.” And, when prompted to give a definition in the style of a bluegrass song, it came up with “In the strum of a banjo, where the heart's tales unwind, creativity's the river flowin' through the mind.” Which is pretty bad. But you can see where this is headed – Merriam-

Webster is sounding very old-school relative to ChatGPT. If ChatGPT can ingest all of the dictionaries in world and then spit out much more... um... relatable, and dare I say, creative, definitions, it seems like it won't be long before ChatGPT and its equivalents will take the place of online dictionaries in our collective searches for the meaning of words.

And that last sentence is the crux of the matter. ChatGPT and other AI-based technologies are already replacing older technologies and taking over jobs and things that have always been done by humans, and it seems inevitable that this will happen at an accelerating pace as AI gets better and better. If I were in the online dictionary business, I'd be worried for sure.

There is a long history of technology taking jobs away from humans – and also, technology creating new ones. The fear of job loss is one of the reasons behind the growing number of law-suits filed by artists, writers, and news organizations against AI-development companies like OpenAI. And that is an absolutely legitimate fear. But what about this notion that AI is “sabotaging creativity?” What are the implications for us humans if we completely, or even partially, cede the creative realm to AI?

Creativity is core to being human. As stated in this morning's first reading from Wisdom Tree Books, “If creativity is the act of solving problems, then yes, every human is creative.” And as Twyla Tharp said, “Creativity is not just for artists.” If you've ever helped a child manage a stressful situation, you've been creative. If you've ever made up a joke, you've been creative. If you've ever “thought outside the box,” you've been creative. And, the human need to address questions like “what's the meaning of life?” or “how does the universe work?” has required and will always require creativity in thought, science, art, philosophy, music, poetry, dance, theater, cooking, sermon writing, and a myriad other medium. We need creativity in our lives.

Creativity happens through establishing new connections amongst our vast collections of lived experiences, which are stored in an infinitely complex network of neurons in our brains. Developing new connections occurs courtesy of a lot of things – sometimes out of necessity, sometimes out of going down paths we've not gone before. I can't tell you the number of times I've been inspired by sermons I've heard in this church – sometimes I've been able to viscerally feel the new connections being made as I've listened to our Reverend Kathryn Burt's sermons. That connection-forming feeling is one of the main reasons I've been a member of this church for 20 years.

One cool thing about AI is that it mimics this connection-forming process that happens in our brains. “Neural networks” are a computer programming concept that uses sets of rules to promote or inhibit connections between different bits of data. Programmers often talk about this connection-forming process as the “training” of a neural network. And in that training process, neural networks are doing exactly what our brains are doing – making connections. But they are doing so in a very, very limited way – and that is one of the problems with ceding parts of the creative realm to AI.

Some of you may know that I'm a musician – not professional, mind you; more like semi-pro. I started playing the violin when I was 8, exclusively classical through college and then branching out to bluegrass, folk (I've had a lot of memorable moments playing fiddle with Carl & Sara), and recently I've gotten into live looping with an electric violin and guitar pedals. I've also sung in choirs and glee clubs, played in a marimba band, learned to play the Zimbabwean mbira, and I listen to all kinds of music, with a general preference for Pink Floyd and New Age especially when I'm working.

I mention all of that to you because I've also written my own music. Although each piece I've written has definitely been something "original" and creative in the sense that it's come from me and hasn't existed before, each piece has also been HIGHLY dependent upon my brain making connections amongst the vast collection of musical and other experiences I've got stored away in my personal neural network. It's quite likely that some, or most, of the melodies and rhythms I've used in my songs have come from something I heard or played waaaay back when. If I'd had completely different musical experiences, I'd be writing completely different music. Sometimes I can point to the source exactly – one tune I recently wrote is based on a chord progression from a song called "Keep it up" by Rex Orange County that I heard on a radio station while driving home one night. Sometimes I can point to the influence generally – some of the rhythmic patterns I use are reminiscent of the Zimbabwean music I played decades ago. And sometimes, I have absolutely no idea where it came from. But this I know – although it sometimes feels like it, it didn't come out of nowhere.

I struggle a bit with the Jim Jarmusch quote that "originality is non-existent," but perhaps what he was getting at is that a lot of what we create, what we think of as original, comes from somewhere – some past experience stored away in our brains. Since our experience base is vast, good luck being able to trace exactly where every element of a creation comes from. Jarmusch uses the word "authenticity" for what I might call creativity – it's not the elements themselves that make something creative, like the chord progression I heard on the radio. Rather, it's the end product that comes out of a process of connecting and weaving of various elements from our experiences together into a creation.

There are some striking similarities between the process I just described for creating music and how AI works when it "creates" something. AI programs are trained by feeding them lots of "things" – books, dictionaries, art, photographs, recipes, poetry, lyrics. As emphasized by the quote from the GSA "AI Guide for Government", one hugely intimidating thing about AI is that computers are capable of ingesting far more data than any single human or group of humans can do in a lifetime. There is way too much data out there – we do indeed need technologies like AI to help us make sense of it all.

When ingesting data, AI programs store these "experiences" in a vast neural network, with connections initially formed via different types of algorithms. Humans then train these pro-grams to make connections by asking the programs to produce something – like, for example, a definition of creativity in the style of a bluegrass song. At first the AI program will utterly fail – but over time, if it is asked a bunch of times to define creativity in the style of a bluegrass song AND it is given feedback that what it just produced wasn't very good, eventually it will get good at it. And, there absolutely is creativity involved in us humans getting an AI program to produce something that we like. There's actually a new job title out there for people who do exactly that – they're called "Prompt engineers." Which sounds eerily similar to the "prompts" that are used in creative writing workshops, art classes, and songwriting circles to promote creative activity.

So, here's the question: Is the process of a human coming up with the perfect prompt to cause an AI program to make a product -- a piece of writing, or art, or music -- that us humans like and even find meaning in – is that process creative? Creative in the same sense as me writing a song in response to a prompt given to me in a songwriting class?

Oy. That's a big question – my head hurts just thinking about it. Wait; I've got an idea – let's ask ChatGPT, shall we?

Me: “Hey, ChatGPT: Should we regard AI products as creative in the same sense as writing, art, or music generated by humans?”

ChatGPT: “The concept of creativity when it comes to products generated by AI compared to those by humans is a complex and nuanced topic. AI can produce works that may appear creative by combining patterns and elements from its training data in new ways. However, many argue that true creativity involves intentionality, consciousness, and a personal touch, which AI lacks. Human creativity is deeply intertwined with experiences, emotions, and a conscious thought process. AI-generated content, on the other hand, reflects the ingenuity of the programmers and designers who created the algorithms, rather than an innate creativity of the AI itself.”

Ohmigosh! Sermon done! Thanks for listening everyone!

Seriously, though – it’s scary, isn’t it? AI is getting quite good. Although, did you catch that self-congratulatory reference to the “ingenuity of the programmers and designers who created the algorithms”?

Well, sorry, the sermon isn’t quite done – because there is more to it than the question of whether AI output should be considered to be creative. There are also ethical, spiritual, and existential questions to consider.

On the ethics side, in order for ChatGPT to give me a definition of creativity written in the style of, say, a Beyonce’ song, its programmers would need to feed ChatGPT a lot of Beyonce’s lyrics. All the lawsuits I mentioned at the start of this sermon are saying that it’s not okay to do this if Beyonce’ didn’t give ChatGPT’s creators permission to ingest her copywritten songs. The ethics question becomes even thornier if people start using ChatGPT to create Beyonce’-like lyrics and then put them out there either as fake Beyonce’ songs or, even worse, as their own “original” songs.

Some of that will be worked out in the courts via the growing number of lawsuits being filed against companies that operate AI technologies. For music, copyright laws have given musicians some good protections in the event that someone uses their copyrighted music and/or lyrics for profit and without their permission. I play in a bluegrass band called Fadin’ by 9 that plays mostly covers. When we’ve recorded our covers, we’ve had to pay \$0.099 per recording unit (a single CD), which adds up if you print 1000 CDs. When we perform, we can only play in venues that have paid the licensing fee to the American Society of Composers, Authors, and Publishers (or ASCAP) that’s required of all venues that feature musicians playing covers. A significant percentage of those fees go to the people who own the copyright for the song we’ve covered.

Before AI entered the scene, this system, although not perfect, was deemed fair by most musicians as a means for ensuring that those who have created music good enough that others want to play it can get compensated. Music streaming services like Spotify have somewhat eroded that model. AI has the potential to completely eliminate it – for the simple reason that there is no way for Beyonce’ to get paid, or even to get credit, if somebody uses an AI program to produce song lyrics that are based on the Beyonce’ lyrics that the AI program was fed by its programmers. There is no way to know what bits and pieces of content stored in its vast neural network have been used when an AI program “creates” something. AI is much, much worse than we are at being able to say where different elements of a

creation come from. Connections between elements have been made, yes – but the metadata has been entirely erased in the process.

Also, here's a real way for AI to "sabotage creativity" – if artists writ large can't make a living doing their art, then some, or even many, will have to stop creating as much. That doesn't mean that creativity will stop all together – there are plenty of people out there like me who do creative things but have other ways to make a living. But it does mean there's a risk that there will be fewer people exploring the edges and the unknown full-time – something that I believe we all will suffer from if it happens.

On the spiritual side of things, I believe that the accurate crediting of sources is intrinsic to our UU faith. In part, it is a very tangible way to acknowledge the inherent worth and dignity of every person – it is unquestionably the right thing to do to give credit to those who have created a piece of content that we use in our services and in our personal quests for spiritual growth. In addition, the act of crediting sources allows us to lay out a trail of breadcrumbs for others who may be interested in seeking out the same sources of wisdom we've found to be meaningful in our searches for truth and meaning. With AI, you can't do that – it gives you precisely zero bread crumbs.

Lastly, on the existential side of things, let's return to that phrase "sabotage creativity." When humans create, we pull from an extraordinary range of experiences. In addition to their trove of musical experiences, musicians also create from emotions, senses, and memories. When AI creates, it does so from a tremendous trove of information – but, a trove that is only from a narrow range of experiences. Its ability to forge connections is therefore limited to that narrow range of experiences. AI only knows what it has been fed, which makes it the ultimate echo chamber – its products will always and forever reflect only the content that it has been given. If we were to cede all of music creation to AI, then 20 years from now it's easy to imagine that we'd basically be listening to the same types of music we're listening to today – there'd be nothing new. And that would be the ultimate in sabotaging of creativity.

Realistically, there's no danger of us completely ceding music creation to AI – but what if we were to cede parts of it? And how would we feel if someone sang a song here at UUCV with lyrics generated by AI? Or if AI-generated images were used during one of our services? Or if someone gave a sermon that was in part generated by AI? That's the land we're going to, my friends – let's go there with our eyes wide open.

And as we're going to that land, will you please join me in shaking off some of this AI angst and singing Hymn #1018, "Come and Go with Me"