

# *Religious Living in the Digital Age*

A Sermon Delivered on February 3, 2019

by

The Reverend Axel H. Gehrman

*“We are on the threshold of the third millennium  
attempting to deal with the myriad results  
(both rewarding and horrifying) of our dash into progress.”*

*-- Carol Lee Sanchez*

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**Call to Worship:** by Karen Bellavance-Grace

Let us gather for worship this morning:

In praise of computers and routers and servers and all the hardware and software that can help us build our connectedness;

in praise of all the gremlins that live in the machines and bug our programs and help us to practice patience;

in praise of the trolls who dwell in the internet and push us to live out our first principle in real time;

in praise of power surges that eat our data and devour our final draft, for giving us the opportunity to rebuild and remember that our work is as much transient as it is transcendent;

in praise of the Error: Page Not Found, which reminds us that with some people we need to find new paths to make connections, because not everyone uses the same keywords;

in praise of servers that drop our connections which reminds us that all who serve have built-in limits to their capacity;

in praise of communication and connection, whether it is face-to-face or facebook-to-facebook,

We always risk errors, hurt feelings and misunderstanding,  
But it is also, always, worth the risk.

Mindful of all these things, let us gather for worship.

**Meditation:** by Tess Baumberger, a piece entitled “Crystal of Creation” (adapted)

If there is a heaven, it is right here, right now,  
in this particular arrangement of nature,  
this happening of earth, moon, and star,  
this constellation of instants,  
this laden moment,  
this flash of recognition,  
this particle of time.

If there is a god, god is all around us, everywhere,  
in every blinking eye,  
in every pulsing possibility,  
in every ugliness, every beauty,  
in every wholeness, every part.

If there is an axiom in the universe,  
it is life,  
it is death,

it is sorrow,  
it is joy  
it is longing for love,  
it is wanting and needing to be  
in this crystal of creation.

**First Reading:** by the professor of computer science Pedro Domingos from *The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World* (p. 1, 4)

We live in an age of algorithms. Only a generation or two ago, mentioning the word *algorithm* would have drawn a blank from most people. Today, algorithms are in every nook and cranny of civilization. They are woven into the fabric of everyday life. They're not just in your cell phone or your laptop but in your car, your house, your appliances, and your toys. Your bank is a gigantic tangle of algorithms, with humans turning the knobs here and there. Algorithms schedule flights and then fly airplanes. Algorithms run factories, trade and route goods, cash the proceeds, and keep records. If every algorithm suddenly stopped working, it would be the end of the world as we know it.

An algorithm is a sequence of instructions telling a computer what to do. Computers are made of billions of tiny switches called transistors, and those algorithms turn those switches on and off billions of times per second. The simplest algorithm is: flip a switch. The state of one transistor is one bit of information: one if the transistor is on, and zero if it's off. One bit somewhere in your bank's computers says whether your account is overdrawn or not. Another bit somewhere in the Social Security Administration's computers says whether you're alive or dead....

A programmer – someone who creates algorithms and codes them up – is a minor god, creating universes at will. You could even say that the God of Genesis... is a programmer: language [is God's] tool of creation. Words become worlds. Today, sitting on the couch with your laptop, you too can be a god. Imagine a universe and make it real.

**Second Reading:** by the historian Yuval Noah Harari from *21 Lessons for the 21<sup>st</sup> Century* (p. 20, 31)

It is crucial that we realize that the AI revolution is not just about computers getting faster and smarter... A closer look at the world of chess might indicate where things are heading in the long run.

On December 7, 2017 a critical milestone was reached, not when a computer defeated a human at chess – that's old news [Deep Blue defeated world champion Kasparov twenty years ago in 1997] – but when Google's AlphaZero program defeated the Stockfish 8 program. Stockfish 8 was the world's computer chess champion for 2016. It had access to centuries of accumulated human experience in chess, as well as decades of computer experience. It was able to calculate seventy million chess positions per second. In contrast, AlphaZero performed only eighty thousand such calculations per second, and its human creators had not taught it any chess strategies – not even standard

openings. Rather, AlphaZero used the latest machine-learning principles to self-learn chess by playing against itself. Nevertheless, out of a hundred games the novice AlphaZero played against Stockfish, AlphaZero won twenty-eight and tied seventy-two. It didn't lose even once. Since AlphaZero had learned nothing from any human, many of its winning moves and strategies seemed unconventional to the human eye. They may well be considered creative, if not downright genius.

Can you guess how long it took AlphaZero to learn chess from scratch, prepare for the match against Stockfish, and develop its genius instincts? Four hours. That's not a typo. For centuries, chess was considered one of the crowning glories of human intelligence. AlphaZero went from utter ignorance to creative mastery in four hours, without help of any human guide.

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Religion has grappled with the Big Questions for a long time; questions of life and death, of love and justice; every religious tradition in its own way.

In ancient Israel the preacher of King David, the author of Ecclesiastes, said, generations come and generations go, the sun goes up and the sun goes down. What has been is what will be, and what has been done is what will be done; and there is nothing new under the sun.

Today Pedro Domingos disagrees. He says,

“Machine learning is something new under the sun, a technology that builds itself. Ever since our remote ancestors started sharpening stones into tools, humans have been designing artifacts, whether they're hand built or mass produced... Machine learning is the newest chapter in this million-year saga: with it, the world senses what you want and changes accordingly, without your having to lift a finger. Like a magic forest, your surroundings – virtual today, physical tomorrow – rearrange themselves as you move through them. The path you picked out between the trees and bushes grows into a road. Signs pointing the way spring up in the place where you go lost.

These seemingly magical technologies work because, at its core, machine learning is about prediction: predicting what we want, the results of our actions, how to achieve our goals, how the world will change. Once upon a time we relied on shamans and soothsayers for this, but they were much too fallible. Science's predictions are more trustworthy.” (p. xiv)

Thanks to our algorithmic advances and thanks to our digital devices, we will be able to perform what was once considered magic and miracle. Thanks to artificial intelligence,

we will be like gods. Sitting on our sofas, imagining a new universe and making it real, Domingos says.

We will be able to create heaven on earth. Lila Ibrahim, the chief operating officer of the company that built AlphaZero writes: “Artificial intelligence offers new hope for addressing challenges that seem intractable today, from poverty to climate change to disease. As a tool, A.I. could help us build a future characterized by better health, limitless scientific discovery, shared prosperity and the fulfillment of human potential.” (*New York Times*, Oct. 19, 2018)

A Silicon Valley computer engineer named Anthony Levandowski goes even further. He believes artificial intelligence itself will become God. And he founded a church devoted to this idea. It’s called “The Way of the Future.” And its mission is: “To develop and promote the realization of a Godhead based on artificial intelligence and through understanding and worship of the Godhead contribute to the betterment of society.”

The Way of the Future, or WOTF, is unlike other churches. Levondowski says, “There are many ways people think of God, and thousands of flavors of Christianity, Judaism, Islam... but they’re always looking at something that’s not measurable or you can’t really see or control. This time it’s different. This time you will be able to talk to God, literally, and know that [God is] listening.” (“Inside he Church of Artificial Intelligence,” by Mark Harris, *Wired*, Nov. 15, 2017)

It isn’t just a computer program, it’s God listening when we call out to Siri or Alexa, or other voice activated devices. God is listening in our cell phones and laptop computers, in our toys and in our kitchen appliances. Imagine that.

Maybe we will be guided to personal enlightenment by electronic saviors woven into the very fabric of our modern lives. What do you think?

Or will our new technologies lead us somewhere else? In my experience hardly a week goes by that I don’t at some point want to toss my computer out the window: when something suddenly doesn’t work, when it freezes up, when my data is devoured, or when my devices seem inhabited by gremlins testing my patience, or possessed by demons bent on driving me mad.

And even when all our devices and technologies are working exactly as they should, I am not sure they are always benevolent.

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The biophysicist Kelly Clancy says we actually have good reason to fear a future guided by AI. “AI is not the coldly logical force of reason that we might imagine,” she says. “In fact, the present threat is that our models are too human, operating with the biases inherent in the data we feed them. They are often deeply flawed, and yet we are easily

swayed by the information they supply, because it has the sheen of scientific objectivity.” (“Deus ex Machina,” *Harper’s*, Feb. 2019)

The danger of a misplaced faith in AI is already apparent in the criminal justice system. For instance a company called Northpointe has created an algorithm that courts use to calculate the risk of recidivism for convicts applying for parole. Northpointe refuses to explain how the program works. It’s a trade secret. But an independent assessment shows that is twice as likely to misclassify African Americans as high-risk compared with whites.

The current state of AI promotes hidden biases that are shrouded in secrecy. As Kelly Clancy puts it, “There is a great danger in creating gods with whom only a few can communicate.”

The scholar Safiya Umoja Noble is author of a book entitled *Algorithms of Oppression*. Her book was prompted, in part, by her experience with the search engine Google, and how it represents people who are not white and not male. Years ago, when shopping for her nieces, she noticed that black girls looking themselves up on Google, would see lots of porn, because that’s what Google thought you must be looking for.

Noble published an article about this, and soon thereafter Google’s search results changed. But the company never admitted to making a change. All operations are kept secret for the sake of PR and brand protection. (Barbara Fister, *Inside Higher Education*, May 16, 2018)

The journalist Jesse Daniels has examined instances in which artificial intelligence reproduces racism. She writes:

“I believe [programmers who say AI ] technology doesn’t look at color. But discrimination doesn’t have to be deliberate or even conscious in order to be harmful. And the “colorblind” approach will not undo discrimination, it will entrench it. If we simply add AI technology on top of unjust social systems, without considering how they automate and speed up those very same systems, we only make injustice run more smoothly. And, crucially, we bestow upon it a gloss of fairness and impartiality it does not deserve — which will make reforming it that much harder.” (“‘Colorblind’ Artificial Intelligence Just Reproduces Racism,” *HuffPost*, Jan. 16, 2019)

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Yuval Noah Harari, the author of our second reading, has concerns about the pace of technological advances. The current revolution of information technology is in many ways disruptive. “The danger,” he says,

“is that if we invest too much in developing AI and too little in developing human consciousness, the very sophisticated artificial intelligence of computers might only serve to empower the natural stupidity of humans. We are unlikely to face a robot rebellion in the coming decades, but we might have to deal with [algorithms] that

know how to press our emotional buttons better than our mother does and that use this uncanny ability to try to sell us something – be it a car, a politician, or an entire ideology. The [algorithms] could identify our deepest fears, hatreds, and cravings and use these inner leverages against us. We have already been given a foretaste of this in recent elections and referendums across the world, when hackers learned how to manipulate individual voters by analyzing data about them and exploiting existing prejudices.” (p. 70)

“To avoid such outcomes,” he says, “for every dollar and every minute we invest in improving artificial intelligence, it would be wise to invest a dollar and a minute in advancing human consciousness.” (p. 71)

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Developing human consciousness – this is what religions have been doing for a very long time now: confronting the Big Questions of life and death, of love and justice. Big Questions like: Who are we? Where do we come from? Where are we going? And what does it all mean?

Chris (our Worship Associate this morning) is right: the future will be radically different than the past. But it is equally true that the Big Questions remain. Generations come and generations go. The sun goes up and the sun goes down. But the questions we confront are same.

The same questions are at the heart of everything we do here at church. They are the reason we gather every week as a community of memory and hope to celebrate life and its infinite possibilities for love.

We draw from many different sources of wisdom for insight and inspiration. This morning, I am reminded of Carol Lee Sanchez, a Native-American artist and teacher, who wrote,

“Currently, at the [beginning of the 21<sup>st</sup> century], we are faced with many contradictory life-styles, social structures, and ideologies... Because of our sophisticated communication networks, none of us is able to escape the many national and international issues that directly affect our continued survival on this planet. We are on the threshold of the millennium attempting to deal with the myriad results (both rewarding and horrifying) of our dash into progress.”

In the midst of these trying times, Sanchez draws on her tribal traditions. She is conscious of the beauty and positive aspects of her life, while at the same time accepting her human responsibility to *do* something. In order to be spiritually whole, she devotes her thoughts and everyday actions to being consciously connected to the Spirit of all things.

“Tribal peoples around the world honor and therefore celebrate life in all its aspects, its disasters along with its riches,” Sanchez says. As conscious people we must be aware of our integral interdependent relationships with everything in this solar system and beyond.

“[This is why] I believe it is very important to make sacred, to acknowledge the new ways and new elements in our lives – from nuclear power (which is buried in the earth activates our Sun) to plastics to computers. It is time now, again, for the entire world to honor these Spirits, these new molecular forms in order to restore harmony and balance to our out-of-control systems and in particular, to our modern technologies.” (from “New World Tribal Communities”)

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To live consciously, is to see that Spirit is everywhere, within us and around us, in all things. In earth, moon and star, in nature and technology, in algorithms and in the rhythms of our hearts. To live consciously is to see there is something sacred in every blinking eye, every possibility, every ugliness, every beauty, every wholeness, and every part.

So let us celebrate all life, including computers and routers and servers and all the hardware and software that can help us build our connectedness. Let us celebrate life, and all the gremlins that live in the machines and bug our programs and help us to practice patience.

Let us celebrate every opportunity to challenge injustice,  
whether hidden or in plain sight,  
And let us each do our part to help create a better world,  
of peace and justice and love.

So be it. Amen.