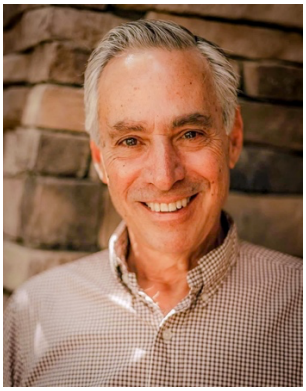

DAVID PORUSH, Ph.D.

ENTREPRENEUR, PROFESSOR, FUTURIST, ARTIFICIAL INTELLIGENCE RESEARCHER

David Porush is a teacher, author, and entrepreneur. He wrote *The Soft Machine: Cybernetic Fiction* (Routledge, 1985; republished 2018), a revolutionary study of science and literature, as well as numerous books of cultural criticism and fiction, essays about the intersections of science, religion, and literature, a book of short stories (*Rope Dances*), plays, articles, reviews, and blogs. His works have been translated into Hebrew, Japanese, French, and German. Many universities use his textbook, *A Short Guide to Writing About Science* (HarperCollins). He is currently writing a book, *Telepathy*, about the origin of the alphabet as a model for all new media revolutions.

He was CEO of MentorNet (2008-2013), which matched students in science and engineering with mentors in those professions, and was chairman and co-founder of Spongefish (2005-2008), a San Francisco-based social platform for sharing knowledge. Earlier, David was the Executive Director for Learning Environments and the SUNY Learning Network, where he spearheaded new media innovation and e-learning for the sixty-four campuses of the State University of New York. David was a professor of literature and media at William and Mary and Rensselaer (1977-1998), and he won awards for excellence in teaching and grants for research in interdisciplinary studies, AI, and electronic media.

As a Fulbright scholar at the Technion, Israel, he researched and wrote about the origin of the alphabet among the Hebrew slaves, and about cognitive differences in reading Hebrew vs. English. Later, he co- founded the Society for Literature and Science. He created the world's first degree program in web design at Rensselaer, and the first online engineering bachelor's degree at SUNY. In 1995, the AI that his lab developed directed live performers in front of an audience in NYC, the first known instance of an AI-directed play. Porush has lectured and consulted worldwide, including most recently for the NEOM project in Saudi Arabia. Porush earned degrees in Biology and Literature from MIT, and a Ph.D. from the University at Buffalo. He now lives in California with his wife, three children, and five granddaughters. You can find his recent blogs at davidporush.com and write to him at dporush@yahoo.com.

We Will Find God in What We Know[1]

DAVID PORUSH, Ph.D.

Believers in science and believers in God have been trying to debunk each other for centuries, yet they are co-conspirators who share similar motives and goals: to seek the veiled unity of the world. Although most scientists resist it, they might soon come to the ineluctable[2] conclusion that an omniscient, purposeful, active universal intelligence *must* exist.

Indeed, many scientific hypotheses either directly suggest that a Godlike entity exists or they propose concepts so far-fetched or improbable that they require just as much faith:[3]

- Space, time, matter, and energy are fundamentally the same thing. We perceive them as distinct because of the illusions of our limited senses. Many physicists believe that all remaining problems will also prove to be projections of a grand unifying *something*.[4]
- What binds the universe across its vast span – over 95 billion light years – is the quantum entanglement of subatomic particles. Every bit of the cosmos is integrated with every other every instant. This also means, as mystics have said about God's perspective, that there is no such thing as the "present," "past," and "future."
- The universe is fine-tuned to produce life beyond all reasonable odds (think Planck's constant, e.g.). This means either that:
  - natural mechanisms with a combined improbability of one in a trillion trillion were miraculously lucky ***or***
  - *something intervened to create life.*
- The universe had a single, undefined point of origin just before the Big Bang. Instead of saying *something transcendent,* science posits a one-off event, such as a "quantum fluctuation." Alternatively, cosmology proposes that it is locked in a cycle of expansion and contraction without beginning or end, for which there is no evidence.
- Life began through improbable processes that still required a *push by something*: from complexity; or from molecules that replicate themselves arising spontaneously (the "RNA- world" hypothesis); or from metabolism somehow existing on its own to kickstart chemicals into life.
- Human consciousness arises *somehow* from the quantum entanglement of neurons or emergence from complexity. These are as abstract as the belief that God breathed souls into us.
- Every quantum (subatomic) event in the universe exists in a "superposition" of multiple probabilities before they collapse into one reality. There are trillions of quantum events happening every second in every cubic centimeter of space. This leads to two equally magical conclusions:
  - either all the other probabilities become alternate universes so that there are that many trillions of new universes spawned every instant ***or***
  - *something with inconceivably infinite awareness – Godlike – observes every one of these events to create what we call reality.*

Put it all together and what emerges from science is the portrait of *something* that very much resembles the incomprehensibly omniscient, unitary, and creative God that lies beneath the different doctrines of the Abrahamic faiths.

Science's job is not to ask the meaning and purpose of it all. But as science finishes its work, religion has been waiting patiently with its answer. We are here to acknowledge and contribute to a holy, God-given world. In its way, science is doing that.

Footnotes:

1. This is a paraphrase of a line by Dietrich Bonhoeffer, who wrote, "We should find God in what we know, not in what we don't know." He was a Lutheran pastor who wrote about the role of religion in the secular world and whom the Gestapo executed in 1945 because of his sympathy for the Jews and his outspoken resistance to the Nazis. *Dietrich Bonhoeffer Letters and Papers from Prison,* ed. Eberhard Bethge, transl. Reginald H. Fuller, Touchstone, 1997; (orig. title Widerstand und Ergebung Munich: Christian Kaiser Verlag, 1970).
2. By "ineluctable" I mean "by application of Occam's Razor, the simplest possible explanation."
3. Each of these is a vast simplification of concepts that scientists and philosophers have debated extensively. For a detailed treatment, see the following articles in *The Stanford Encyclopedia of Philosophy*:

   - Smeenk,Christopher and George Ellis,"Philosophy of Cosmology,"(Winter 2017 Edition),Edward N.Zalta (ed.),

     https://plato.stanford.edu/archives/win2017/entries/cosmology/

   - Weinstein, Steven and Rickles, Dean, "Quantum Gravity" (Summer 2023 Edition), Edward N. Zalta & Uri Nodelman (eds.), forthcoming, https://plato.stanford.edu/archives/sum2023/entries/quantum-gravity/

     Friederich, Simon, "Fine-Tuning," (Summer 2022 Edition), Edward N. Zalta (ed.), https://plato.stanford.edu/ archives/sum2022/entries/fine-tuning/

4. A short list of mysteries that cosmologists are confident that one can explain as manifestations of one fundamental something includes black energy, black matter, quantum gravity, and inconsistencies between the cosmological constant and observation. See also Sabine Hossenfelder, *Existential Physics*, (NY: Viking Press, 2022), and her blog at http:// backreaction.blogspot.com/. See Clara Moskowitz, "The Cosmological Constant Is Physics' Most Embarrassing Problem," *Scientific American* (Feb 1, 202), https://www.scientificamerican.com/article/the-cosmological-constant-is- physics-most-embarrassing-problem/