Can We Become Immortal and Superintelligent By Uploading Our Brains to Supercomputers?

By Jeffrey M. Bradshaw · June 27, 2016

An alternative to omniscient supercomputers that leverage traditional computational approaches to achieve superintelligence was introduced in a series of books by Ray Kurzweil, the most well known of modern-day transhumanists. There is a wide variety of opinion on the definition and goals of Transhumanism, but most would probably agree with the relevant Wikipedia article that it has as a major focus “the potential benefits and dangers of emerging technologies that could overcome fundamental human limitations.”

Ray Kurzweil has achieved notoriety for his technology predictions, which he claims have been accurate 86-95% of the time. However, the discrepancies between his self-assessments and the assessment of others of his accuracy resemble the differences between Donald Trump’s claims about Trump University and the claims of everyone else. As one critic concludes: “On close examination, [Kurzweil’s] clearest and most successful predictions often lack originality or profundity. And most of his predictions come with so many loopholes that they border on the unfalsifiable.”
In Kurzweil’s defense, other experts fare equally poorly in their predictions about the future of AI, differing little from the opinions of non-experts in what they say or how accurate they are. For example, this graph shows experts’ and non-experts’ median-estimates for when ‘human-level’ AI will appear, graphed against the date of prediction. The predictions of both experts and non-experts are all over the map.
In Kurzweil’s 2005 book, The Singularity is Near: When Humans Transcend Biology, he predicts a future where, in “[f]using themselves with machines, humans can leave the flesh behind.” In the meantime, “set[ting] out a plan of diet, exercise, vitamin supplementation, and preventive technology” will, he believes, “enhance longevity to the point where technological intervention can overcome mortality.” In other words, Kurzweil is doing everything he can to live long enough in mortality so that he can make himself immortal through technology.

Overall, John Gray sees Kurzweil’s program being “best understood as a version of process theology.” It is not essentially different from Gorky’s fantasy of humans evolving to become pure thought. … The virtual afterlife is a high-tech variant of the Spiritualist Summerland, while accelerated evolution in cyber-space is an updated version of Myers’ Victorian dream of progress in the after-world. [xxvii]

LDS scholar and academic physician Samuel M. Brown has raised concerns about programs that seek to increase longevity and promote athletic, cognitive, and psychiatric enhancements to the body through science and technology. While acknowledging that there is a place for biomedical interventions to relieve suffering and to enable individuals to perform normal human functions, and also realizing that Mormonism is at heart a program for human betterment in both the spiritual and physical dimensions, Brown expresses a few of his many concerns as follows:[xvi]

For some, framing enhancement as the medical approximation of resurrection will make biomedical enhancements seem like nothing quite so much as the Tower of Babel narrative, when, according to early Latter-day Saints, people sought to build their own ladder to heaven on the plain of Shinar. From this Babel perspective, believers could argue that it is the one who makes us immortal rather than the mere fact of immortality that matters most. The perfect immortality of the afterlife comes through Christ and a moral transformation, while the perfect immortality of biomedical enhancement comes merely at the price of purchased technology. Mormons could argue that God has already “enhanced” Enoch’s city, the Apostle John, and the Three Nephites. To turn that holy process into the equivalent of a steroid-augmented athletic context seems a sacrilege. Many Latter-day Saints believe that we should focus on changing our hearts; in his due time, God will change our bodies. In the other envisioned enhancement of the body, there is no attendant change of heart, …

How, in the calculus of proponents of science-based programs for human enhancement, does one distinguish an enlightened society of mortals from a benighted society of immortals? What does it mean to live smart, healthy, and long without a soul (either in the metaphysical or metaphorical sense)? For believers in the Christian scriptures, this would seem to be a textbook case of what Jesus described as losing life in the attempt to save it.[xviii] In the absence of an overarching system of meaning, what makes [their] goals any less arbitrary than the goals espoused by others — such as Michael Sandel or Leon Kass — to experience the emotion of humility or to appreciate the poignancy of our temporary existence?

Apart from the philosophical, ethical, and theological overtones of attempts to achieve superintelligence and immortality through technology (including, for LDS believers, the question about how the spirit, mind and body relate), what can be said about the scientific feasibility of uploading our physical brains to a computer? There has been some credible thinking on this topic, as well as some very unsound proposals that Brown describes as evincing “an almost Pollyannish certainty that biomedical science will succeed”[xx] that [gives] [such] [arguments] an air of science fiction.[xxi] Regardless of one’s opinion on the ultimate prospects of success of programs that seek to enhance or ultimately re-embodi the brain in silicon, nearly every expert on the topic agrees at least that the many remaining challenges would not be overcome ‘im the near future.[xxii] Before you can upload a brain, you need to be able to model it adequately — that challenge is the subject of the next article in this series. Before we leave the current topic, however, there are a few additional things that must be said.

What Would We Do With A Thousand Uninterrupted Years of Life?

As I have reflected on the possible complications of what might happen if our lives on earth could be extended indefinitely through technology, I have sometimes mused about the reasons that humans were made in such a way that we must spend a significant fraction of time each day in sleep. Could it be, I wonder, that if our bodies could do without sleep and we could be up and about nonstop, 24 by 7, we’d use the extra time to create more mischief and get ourselves into even deeper trouble than we already do? This was exactly the situation of the legendary Watchers we read about in Jewish pseudepigrapha. Hugh Nibley summarized accounts that describe their era as being:[xxii]

... the time of great intellectual as well as material sophistication. … The leaders of the people devoted most of their wealth to all kinds of engineering projects for controlling and tempering nature. But the Lord altered the order of creation, making the sun rise in the west and set in the east, so that all their plans came to naught.[xxv] The idea of controlling the environment independently of God was not so foolish as it sounds, says the Zohar, ‘for they knew all the arts … and all the ruling chieftains [archons] in charge of the world, and on this knowledge they relied, until at length God disabused them by restoring the earth to its primitive state and covering it with water.”[xxvi] Rabbi Isaac reports: “In the days of Enoch even children were acquainted with these mysterious arts [the advanced sciences]. Said R. Yesa: If so, how could they be so blind as not to know that God intended to bring the Flood upon them and destroy them? R. Isaac replied: They did know” but they thought they were smart enough to prevent it. “What they did not know was that God rules the world. … God gave them a respite all the time that the righteous men Jered, Methuselah, and Enoch were alive; but when they departed from the world, God let punishment descend …’and they were blotted out from the earth.”[xxvii]

While it may be true that some of us, if we were granted immortality in our current, imperfect state, might use our time like the legendary Watchers — to push science and technology aggressively in foolish and shortsighted directions — I think that most of us would instead simply languish in more mundane fashion, wasting our time in the same kinds of selfish and worthless pursuits we are drawn about in Jewish pseudepigrapha. Hugh Nibley summarized accounts that describe their era as being:[xxii]

Playing off the overoptimistic title of William Blake’s Marriage of Heaven and Hell, C. S. Lewis entertainingly depicts the wide gap that actually exists between them in The Great Divorce. Lewis describes a telestial world with “mean streets” that is “always in the rain and always in evening twilight”[xxx] — in other words, a world not too much unlike our own. “However far I went I found only druggy lodging houses, small tobacconists, boardings from which posters hung in rags, windowless warehouses, goods stations without trains, and bookshops of the sort that sell The Works of Aristotle.”[xxxii]

The town was devoid of people, except for a contentious queue of people waiting for a bus. Where was everyone else? Someone explains:[xxxiv]
Some years ago, Hugh Nibley gave the students in his BYU honors class an unusual midterm assignment. He described that experience as follows:

I asked them ... to assume that they had been guaranteed a thousand uninterrupted years of life here on earth, with all their wants and needs adequately funded: How would you plan to spend the rest of your lives here? I explained that this is not a hypothetical proposition, since this is the very situation the Gospel puts us in. Whether we want to or not, we are doomed to live forever — even the wicked — for 'they cannot die.' In accepting the Gospel, we are already launched into our eternal program. ... We are taught to think of ourselves here and now as living in eternity, and how can it be otherwise, since the contracts we make and the rules we live by are expressly 'for time and eternity'?

So I asked them, 'How are you going to get started on that thousand-year introduction to a timeless existence?' ... Here are some typical answers:

Overwhelmed by the proposition ... [I] would have to refuse it. ... 

First I would go crazy. ... then I would be bored after 100 years. ... 

I would not want to live here that long. I would make long-term investments in the money markets, ... would complete my education in business, get an MBA, would find a part-time job and teach my children the value of work. ... 

It's not a nice question, the pressure would be too great from people who would like money from me. How should I pay tithing on it? How would I use all that money? [For this person], notes Nibley, the whole question is an economic one.

I would spend my time in recreation with some serious moments. For a sense of success, I might build or write something. 

I don't know if I would want a thousand years. ... Travel, study, and teach. 

Could be a blessing or a cursing; I would excel in athletics and general education, would procrastinate a good deal, live in the style of the well-to-do, ... shopping, camping, dancing. ... 

I could do nearly everything there was to do several times over. Perform service and drive a Porsche 911. ... 

I would turn it down. This life is okay, but I am anxious to get on with my progression in the hereafter. [Doing what? asks Nibley.] This is your progression into the hereafter! 

And so it goes, continues Nibley. No wonder Shakespeare's Hamlet finds a world of such people "weary, stale, flat, and unprofitable." [What is a man] he asks, "if his chief good and market of his time be but to sleep and feed? A beast, no more." ... 

What do people do in an eternal society? A recent news item ... tells us of a once flourishing but now decaying mill town in which the population find themselves with all the time in the world on their hands. And what do they do? They spend their days watching [videos]...
Instead of exploiting an opportunity for … “plain living and high thinking,” … they fall back on the paralyzing theatromania, which was the final comfort of the last days of Rome.

**Figure 13**[xiv]

President Harold B. Lee[ continues Brother Nibley,] once told us how at a meeting of [a stake] high council the question of the hereafter came up. One of the group, an undertaker, humorously noted that he would have to change his profession. Upon this, a dentist chimed in and confessed that he was in the same case; next an insurance man … admitted that there would not be much call for his talents, and then a used car salesman saw only limited prospects for his own business, as did the … real estate [agent] in the group, and so it went. If these men were not to dedicate themselves to making money, what would they do? A thousand years of guaranteed livelihood rule out the necessity of almost all the professions, businesses, and industries that thrive on the defects of our bodies and the insecurity of our minds.[xv]

For these and other reasons, I don’t think there are very many of us who are now ready for immortality — let alone eternal life.

(To be continued in Part 5)

References


Endnotes


[ii] Transhumanism.

[iii] Ibid.

[iv] Ibid.

[v] Ibid., p. 55. For more detail, see S. Armstrong, Assessing Kurzweil.

[vi] John Rennie, quoted in Ray Kurzweil. See also S. Armstrong, Assessing Kurzweil.

[vii] S. Armstrong et al., Errors, Figure 1. Cl. S. Armstrong et al., Who Knows?, p. 51 Figure 3.1.


[ix] Ibid., p. 51 Figure 3.1.
about the resurrection which one day will empty all those graves. A marriage counselor can become encrusted with a protective layer of clinical indifference brought on by the routine and incessant

But it is also true that routine may cause a gravedigger to become indifferent to the sorrows of the bereaved gathered about those fresh mounds of earth. The gravedigger may even become cynical

may augment his awe and meekness before his Creator because of the breathtaking order in the universe even if his new discoveries erelong are swallowed up in even more immense discoveries.

railroad company, learn something of patience while struggling to keep the train schedule meticulously up to date. But the patience will long outlast the printed train schedule. A discovering scientist


[xxviii] See G. W. E. Nickelsburg et al., 1 Enoch, 8:1-3, p. 188.
[xxix] See D. C. Matt, Zohar 1, Be-reshit 1:56a, pp. 315-316 and n. 1545.
[xxx] Ibid., Be-reshit 1:56b, pp. 318-319.
[xxxi] Ibid., Be-reshit 1:56b, p. 319; Genesis 7:23.
[xxiii] Alma 34:34.
[xxvi] Ibid., p. 13.
[xxx] “Milton was right,” says Lewis through one of his characters:

The choice of every lost soul can be expressed in the words ‘Better to reign in Hell than serve in Heaven.’ There is always something they prefer to keep, except at the price of misery. There is always something they prefer to do — that is, to really … Those who wish to come to Heaven does. Never fear. There are only two kinds of people in the end: those who say to God, “Thy will be done,” and those to whom God says, in the end, “Thy will will be done.” All that are in Hell, choose it. Without that self-choice there could be no Hell. No soul that seriously and constantly desires joy will ever miss it. Those who seek find. To those who knock it is opened” (C. S. Lewis, Divorce, pp. 71, 72).
[xxvi] Licensed from Shutterstock, still image from v7983493.mov.
[xxvii] Regarding theatromania, see H. W. Nibley, Victoriosa Loquacitas; H. W. Nibley, Sparsiones; H. W. Nibley, Roman Games.
[xxix] Elder Neal A. Maxwell perceptively commented on this topic (N. A. Maxwell, Grounded, pp. 111-112, 118-119): It is especially helpful to remember also that the temptations and challenges we face are common to man (see 1 Corinthians 10:13), yet we must respond uncommonly. It is also useful to ponder the fact that, along with even the Savior himself, we are to experience certain things “according to the flesh” (Alma 7:12) and to learn “in process of time” (Moses 7:21). Built, therefore, into the seemingly

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How often have you and I really pondered just what it is, therefore, that will rise with us in the resurrection? Our intelligence will rise with us, meaning not simply our I.Q., but our capacity to receive and to apply truth. Our talents, attributes, and skills will rise with us, certainly also our capacity to learn, our degree of self-discipline, and our capacity to work. Note that I said “our capacity to work” because the precise form of our work here may have no counterpart there, but the capacity to work will never be obsolete. To be sure, we cannot, while here, entirely avoid contact with the obsolescent and the irrelevant. It is all around us. But one can be around irrelevancy without becoming attached to it, and certainly we should not become preoccupied with obsolete things.

Regarding the seemingly ordinary experiences of our life and how well we keep the commandments are true tests of our performance in this second estate. One can, while in the employ of a railroad company, learn something of patience while struggling to keep the train schedule meticulously up to date. But the patience will long outlast the printed train schedule. A discovering scientist may augment his awe and meekness before his Creator because of the breathtaking order in the universe even if his new discoveries erelong are swallowed up in even more immense discoveries. But it is also true that routine may cause a gravedigger to become indifferent to the sorrows of the bereaved gathered about those fresh mounds of earth. The gravedigger may even become cynical about the resurrection which one day will empty all those graves. A marriage counselor can become encrusted with a protective layer of clinical indifference brought on by the routine and inessential
nature of his chores. If so, his techniques will never compensate for his lack of caring. A civil servant who has forgotten how to be civil may have some sway now in the procurement division of a vast governmental direction, but he is headed in just the opposite developmental direction needed for sway in the next world.

On the other hand, one who listens more and more effectively to others with a genuine desire to understand and to help, if not always to agree, will have no regrets later on. Such an individual may occasionally run out of time here, but he is fitting himself for eternity. Love and patience are never wasted; they only appear to be. The devoted wife and mother who is a quiet but effective neighbor but whose obituary is noticed by a comparative few may well have laid up precious little here in the current coin-of-the-realm, recognition, yet rising with her in the resurrection will be relevant attributes and skills honed and refined in family and neighborhood life. Contrariwise, the civic leader whose thirst for recognition causes him to do things to be seen of men has his reward. He too will receive the gift of immortality during which expanse he can work on meekness and humility.
Both science and religion represent distinct ways of approaching experience and these differences are sources of debate.[27] Science is closely tied to mathematics—a very abstract experience, while religion is more closely tied to the ordinary experience of life.[27] As interpretations of experience, science is descriptive and religion is prescriptive.[27] For science and mathematics to concentrate on what the world. A degree of concord between science and religion can be seen in religious belief and Science deals with the quest for the knowledge of the world gained through experiments and thorough observations. On the other hand, religion stems from faith, beliefs and revelations that generally don't have any scientific basis or proof. Science and religion represent two views of the world. While some say these views can be complementary others regard them as mutually exclusive. Science appeals to the human intellectual desire to learn more about the world we find ourselves in, whereas religion appeals to the emotional desire to mitigate uncertainty, misfortune and fear. In principle both can be used to advance humanity, in practice the vast majority of established religions have very strong dogmatic standpoints, which work to The main aim of this paper is to undertake a comparative scientific analysis of religions on the basis of the well-known theoretical foundation developed by Jean Piaget. The special feature of his approach is its logical and mathematical underpinnings. We use them to resolve disputes among religious systems. In this case we are obliged to refer to that level of reality which can be disclosed to us only by means of corresponding logical and mathematical tools.