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Humanistic Intelligence as the Solution to the Approaching Singularity

The future is unwritten. When listening to today's pundits speak about Artificial Intelligence (AI), one can only conclude that the future will be a dystopia, a place of weeping and gnashing of teeth. Claims abound concerning AI's potential to surpass humans, develop ill intentions, and destroy the world. Some claim that AI will aim to completely exterminate humankind. Others fear that AI will become so superior that we lose our status at the top of the food chain. This is not how things have to be. While these threats do exist and these fears are reasonable, *there is hope*. The only way to ensure humans don't fall behind our own technologies is through symbiosis with our machines. This symbiosis is known as Humanistic Intelligence [1]. Humanistic Intelligence (HI) will be the technology that ultimately ensures the survival of humanity.

For millions of years, human technology advanced at a snail's pace. With little to build upon, innovation was slow. However, in the last one-hundred years, we have seen more innovation in technology than in the last millennium. This is a direct result of the nature of technological growth. Historical analysis clearly shows that technology advances exponentially [2]. In the beginning of an exponential trend, it will seem as if growth is non-existent. However, once a small amount of growth has occurred, the rate of change increases at a remarkable rate. Due to this, we are now at an incredible junction as we approach the "knee of the curve" of technology's exponential trend. The last one-hundred years has seen the development of the Internet, electric vehicles, space travel, television, and much more. The complexity, volume, and impact of these innovations, while great, will pale in comparison to the progress we will see over the next twenty-five years. The exponential trend of technology is undeniable, and it is going to reach a point of faster and greater change than anyone can predict. This point is known as the technological Singularity.

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Mapping this exponential trend into the future, it can be seen that human level intelligence will likely be achieved in our machines within 10 years, and human species equalling intelligence will be achieved within 25 years [2]. Along this trajectory lies a certain point when, if no solution is found, humans will be unable to keep up with the growth rate and sheer complexity of our new technology. Many point out that surely, if humans are the ones building the technology, it will not be able to progress faster than we can understand. However, technology *will* be able to continue its trend of exponential growth because of a soon coming “intelligence explosion” [3]. The moment man creates an intelligence greater than himself, that superhuman intelligence will do the same, creating an intelligence greater than itself. This cycle will repeat itself ad infinitum. The fast approaching Singularity is a time when humans are no longer able to keep up with the rapid changes of technological growth. The result of this is an exponentially-growing, super intelligent, digital entity that has entirely surpassed humanity, with the power to do as it pleases. While the existence of this type of intelligence is a near mathematical certainty, it is impossible to know the intentions it will have. Potentially, an intelligence thousands of times greater than the entirety of the human race could view humanity as a virus infecting the earth. The great destruction humankind has wreaked on the earth is one of any number of reasons that a superintelligence may not have humanity’s best intentions at heart (or, perhaps, at central processing unit).

It is imperative we develop a solution to the impending threats of falling behind and even being destroyed by our own technology. The issue lies in humans’ biological cognitive limitations. While silicon intelligence can continue to grow in size and complexity, humans maintain our biological brain size and complexity (something that only changes over millions of years of evolution). We also cannot do away with biology, as it is from this system that our very humanity arises. So, we need a method to enhance human cognitive abilities whilst maintaining our humanity. The way to ensure humans don't

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fall behind our technology whilst still maintaining our biological minds is through symbiosis with our machines. This human-machine symbiosis is known as Humanistic Intelligence [1]. Marvin Minsky, Ray Kurzweil, and Steve Mann, the creators of Humanistic Intelligence, describe it as

“... intelligence that arises because of a human being in the feedback loop of a computational process, where the human and computer are inextricably intertwined. When a wearable computer embodies HI and becomes so technologically advanced that its intelligence matches our own biological brain, something much more powerful emerges from this synergy that gives rise to superhuman intelligence...” [4, p. 15].

Through a computational loop that contains a machine processor and a human processor, man and machine will combine their abilities to create a super-human intelligence that is a solution to the threat of machines surpassing humans. HI combines technology and humanity to create an intelligent system that is greater than the sum of its parts. This merging with our machines will enhance human cognitive abilities to the level where we can continue to understand the rapid pace of technological growth.

Perhaps even more important is the fact that HI systems allow human beings to enter a state where we become a part of this superhuman intelligence. Instead of two different entities (artificial and biological intelligence) struggling for computational dominance, the merging of the two will create a “best of both worlds” scenario, where extreme computational power and moral human consciousness exist in one entity. Our fear is the overcoming of humankind by our own technology, and Humanistic Intelligence is the best way to ensure that this doesn’t happen.

A positive outlook on the future may be a breath of fresh air for many readers. Despite pop culture’s and pop science’s current dystopian view of the future, I have argued that the future can be saved, and can be made even better than today. With the issues of the Singularity dealt with, we can now focus on the innumerable benefits that technology will create in the near future. As we

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exponentially increase our cognitive abilities by merging with our machines, the potential for humanity to solve world problems such as hunger, poverty, and illiteracy is limitless. There is so much potential, in fact, that it is impossible to say the incredible feats we will be able to accomplish in the near and distant future. Ultimately, the world of tomorrow will be very, very different from today, but it will be a world where humans will continue to live and to thrive.

References

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