

Book Review

Vitality of Intelligence in New Book on Active Transhumanism by London Futurists Chair David Wood Confirmed in the Era of the COVID-19 Pandemic/Omicron Variant and Alpha Fold

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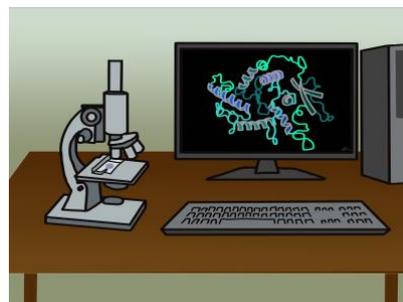
Keywords: futurism, transhumanism, COVID-19 pandemic, Omicron variant, Alpha Fold, Basic Goodness of Human Beings, Casey Stengel, Mark Twain, Rudyard Kipling, David Pearce, Stuart Russell

1. Introduction – Different Vantage Points on the Future

It is not hard to see why I like David Wood's new book *Vital Foresight* (Amazon, 2021). I am by temperament someone with high openness to experience who enjoys new and unfamiliar things (Showalter, 2021). Although both David and I are futurists, his interests are very much in politics and action at the governmental and military level, whereas my interests lie more in activities at the non-governmental and civilian levels, particularly in medicine and technology. The governmental and wartime scenarios peppered throughout his book are fascinating to me, as are his remarks about the COVID-19 pandemic, which also apply to the Omicron variant (Brilliant, 2021). There are other big differences between us. His book has no illustrations inside. I am all about moving people with visual images. He relies on words and political action to move people. I believe that there are some ideas embodied in images that cannot be put into words, ineffable content (Watson, 2020), but are important in motivating people. Images and video (Brilliant, 2021) have an immediacy that cannot be achieved with text alone.

The conclusion is inescapable that much benefit would come to the reader if I put together his ideas about the future and my own, so that is what I have done in this review. The book is impressive in scope and scale, with 17 chapters and 642 pages. The entrancing diverse subjects can be easily seen from the 942 end notes (Wood, 2021) the last of which is the link to the excellent cover illustration (Pixabay, 2021). The book is a pleasure to read from beginning to end!

2. It all began with the success of DeepMind's Alpha Fold in solving protein folding



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Figure 1. Depiction of protein folding which was solved in fall 2020 by DeepMind’s Alpha Fold. Forbes Magazine called this artificial intelligence’s greatest accomplishment ever (Toes, 2021). Graphic by Ishita Moghe has previously appeared at <https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page> .

As is show in Fig. 1 above the pivotal moment suggesting that artificial intelligence (AI) could help solve the thirteen big challenges of humanity came when DeepMind’s Alpha Fold solved protein folding in fall of 2020 (Toes, 2021). Since protein folding is conceptually more complicated than any of the 13 big challenges of humanity described below, Alpha Fold’s achievement suggested that AI could also assist with the other great challenges of our species.

3. The basic goodness of human beings.

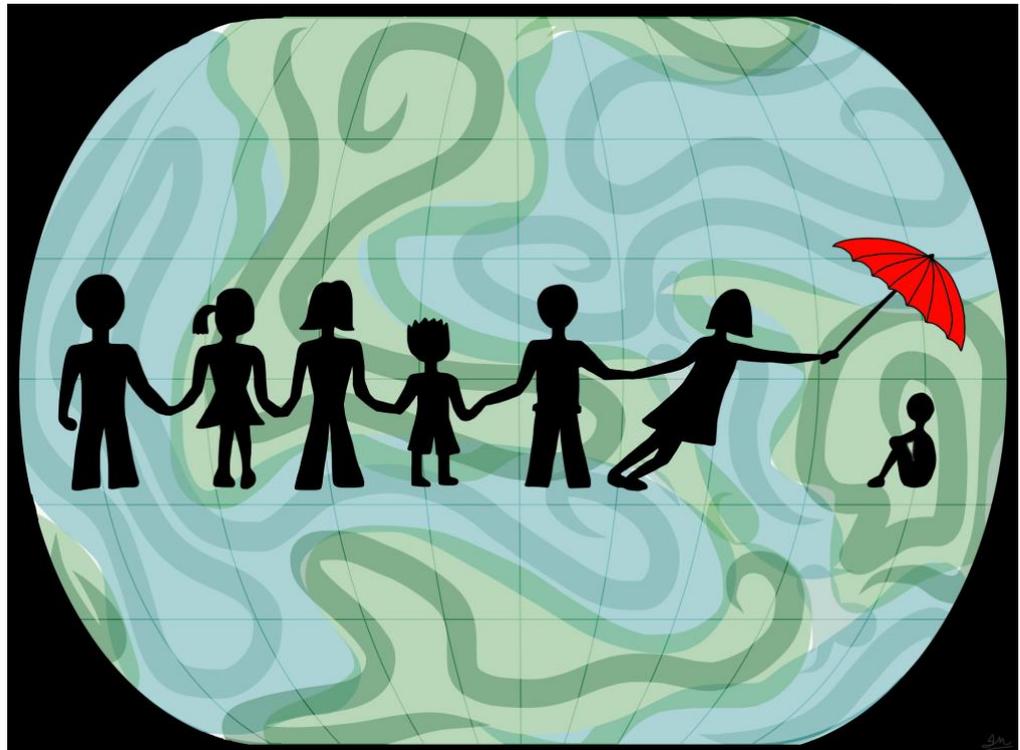


Figure 2 Depiction of the basic goodness of human beings. Illustration by Ishita Moghe has previously appeared at <https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page> .

In the future, when machines are smarter than humans and in charge of the future agenda of the world, they will at some point have a decision to make, whether to accommodate humans on the earth or just ignore them. It will be a point very much in our favor if there is tangible evidence of this basic goodness of human beings. There are elements of the feelings and ideas you get from this graphic that cannot be put into words. Such “ineffable” content will be an increasingly important part of the future and is also something that AI can assist with identifying and detecting (Watson, 2020).

4. The big 13 challenges of humanity

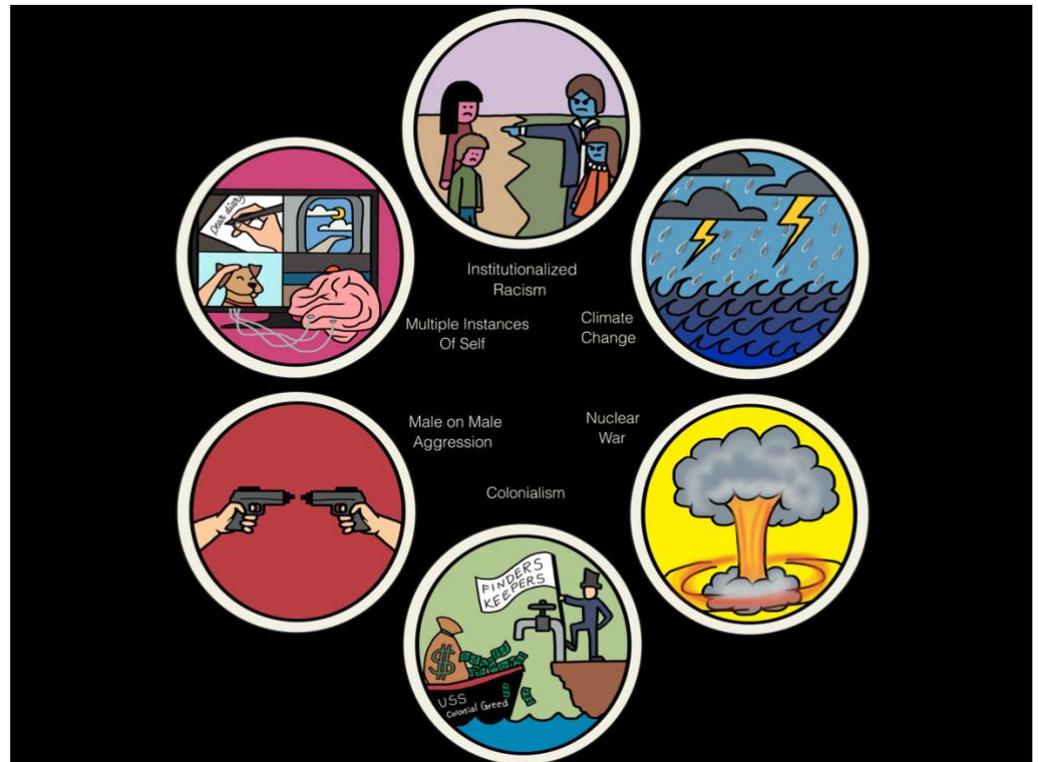


Figure 3. Six of the big 13 challenges of humanity. Illustration by Ishita Moghe has previously appeared at <https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page> .

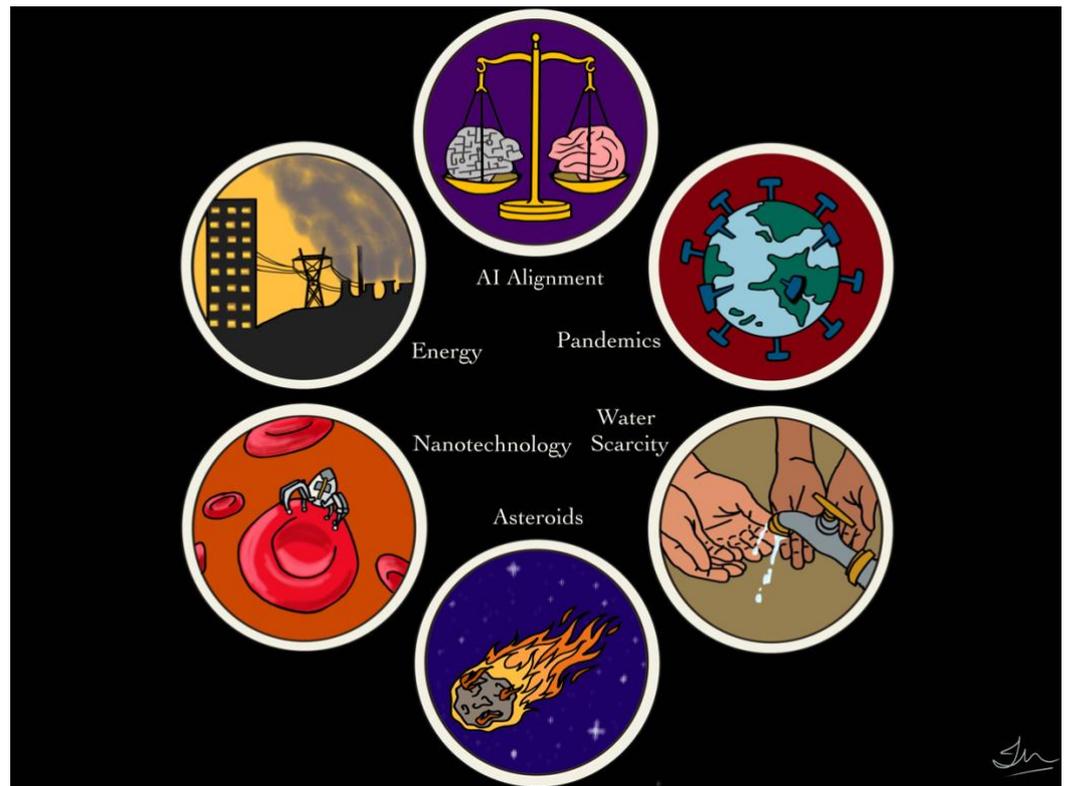


Figure 4. The second six of the big 13 challenges of humanity. Illustration by Ishita Moghe has previously appeared at <https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page>.

The 13th big challenge of humanity, not shown in the graphics, is the imprecision of precision health, and the dangers of “medicalization”. Perhaps one day that challenge will have a graphic of its own. Overall, we are confident that the 13 challenges together show that there is no limit to how big one can think, no limit to how much good one can be trying to do in the world.

5. Getting the Word Out, Stimulating Change



Figure 5. Kim Solez and Ishita Moghe influencing Yuval Noah Harari.

Illustration by Ishita Moghe has previously appeared at

<https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page>.

There were three areas of influence we potentially had on tech writer Yuval Noah Harari, where we complained about statements and his presentations promptly changed: 1) His unappealing self-identification “I am just a historian. It is my job to point out the dangers. I don’t need to provide solutions.” We complained. He stopped saying that. 2) His statement that individuals have little power unless they join a group. It is not true of him. He is one of the most influential public intellectuals in the world and has not joined a group. Why should he assume, we cannot do what he is doing? He stopped saying that. 3) Harari stated that in the future all human culture will be wrecked. Our culture depends on the drama of human decision making and in the future all the big decisions will be made by smarter-than-human sentient machines, not humans, so in the future Harari reasoned all human culture would be wrecked. Ishita and I said that that is ridiculous. Humans are adaptable. If there is so much extra intelligence around then humans will be able to run several lives at once and our culture will be much richer than it is today, with multiple instances of self (Fig. 3), and we will have the intelligence not to get them mixed up. FOMO, the fear of missing out, will be over, and when we meet a friend on the road will have only successes to share because we will never miss out on anything that interests

us. The ANA Avatar XPrize will announce a winner for this kind of technology in September 2022 (ANA Avatar XPRISE, 2021), and we have an interesting video about it with Molly Little animations (Solez, 2020). Harari changed to saying that humans are adaptable and what will happen to human culture as machines get smarter and smarter is an evolving work in progress.

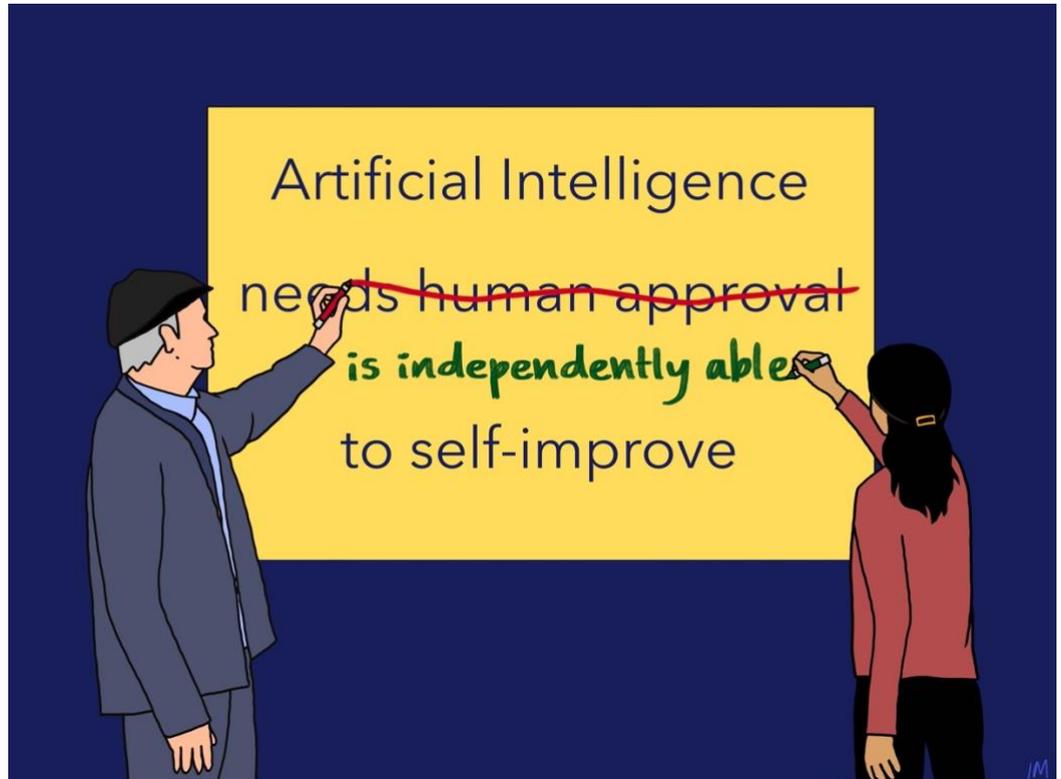


Figure 6. Kim Solez and Ishita Moghe influencing the Elements of AI course of the Government of Finland. . Illustration by Ishita Moghe has previously appeared at <https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page> .

Finland is a small country which prides itself in being very nimble. In 2018 the Government of Finland decided to make their country the most educated about AI. They offered a free AI course to every citizen of the country and encouraged every adult to take the course and everyone else who was interested. We took the course and notice that it taught that self-improving AI required human approval for each self-improvement step, something that no computer scientist in the world believes. We complained about that and within three days the page with that statement was taken down.



Figure 7. Kim Solez and Ishita Moghe talking with industry thought leader in Bilbao Spain in September 2018. . Illustration by Ishita Moghe has previously appeared at <https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page> .

In September 2018 Ishita Moghe and I went to the European Society of Pathology meeting in Bilbao, Spain. We noticed that all the words that we have come to regard as emblematic of the future in the Technology and Future of Medicine course, regenerative medicine, xenotransplantation, human cell atlas project, single cell transcriptomics, ex vivo perfusion, repair, whole slide imaging, all those words were missing from the meeting program. There was an impressive exhibit area. We went to the largest most splendid looking exhibit and asked to speak to their thought leader. It was easy to determine who that was. We asked the confident young man who emerged to talk with us to explain the paradox of the wording in the meeting program. He said, “I know it sounds odd, but there are always strong forces opposed to progress, people who benefit very much from the status quo, and fear they will be written out of the will in the future. Those are the people who oppose the inclusion of the words you mention in the meeting program.”

6. “Never Make Predictions, Particularly About the Future” (Casey Stengel) (Stengel, 1966)

For ten years I have been preparing the transplant pathology community for the moment when we transplanted the first stem cell generated complex organ. It still looks like that destination is a long way away. On the other hand, the first in man pig to human kidney transplant occurred in October 2021 and first pig to human heart transplant in December 2021, and now the floodgates will open for xenotransplantation. University of Montreal pathology resident Qing Yin Wang created this graphic Fig. 8 to celebrate the pig kidney transplant moment and to reflect on how difficult it is to make predictions about the future of organ transplantation timeline.



Figure 8. Qing Yin Wang created this graphic to celebrate the pig to human transplant moment and to reflect on how difficult it is to make predictions of the future of organ transplantation. This graphic has previously appeared at <https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page-1>.



Figure 9. Image of the author and his robotic dog Einstein by Qing Yin Wang with ineffable background, referencing things that cannot be expressed in words. This graphic has previously appeared at <https://www.instagram.com/kimsolez> and <https://www.justmachines.com/blank-page-1>.



Figure 10. New image by Qing Yin Wang for this review depicting the ineffable, things that cannot be expressed in words (Watson, 2020), that artificial intelligence is increasingly able to detect and identify. This graphic has appeared at <https://www.instagram.com/kimssolez> and <https://www.justmachines.com/blank-page-1>.

7. Conclusions

Vital Foresight is the most practically useful book about the future I have ever read. This book is an important resource and enjoyable to read, with many very memorable sections, and an empathetic tone. I was left feeling, to paraphrase what Mark Twain said about Rudyard Kipling*, that David Wood knows all that can be known about the future, and I, with the help of the graphics of Ishita Moghe and Qing Yin Wang, know the rest.

Ishita Moghe (Moghe 2022) suggested that I provided an instance showing that I “know the rest.” David Wood had promoted Stuart Russell’s Reith Lectures from December 2021 (Russell, 2021). I provided transhumanist David Pearce with my critique of these lectures and we discussed the critique together on January 20, 2022 (Pearce and Solez, 2022). I trust the reader will find this to be sufficient evidence that I “know the rest”.

*”Between us, we cover all knowledge; he knows all that can be known, and I know the rest.” (Twain, 1899).

Here is a summary of our Stuart Russell critique. This dialogue is ongoing as David Pearce and I will be talking about this again in the special version of the course for Nepalese students in summer 2022, and in the regular fall 2022 semester of the Technology and Future of Medicine course. I am quite sure we will not run

out of things to talk about regarding this. Sessions in the course are open to the public so if readers want to take part in these debates directly that is possible.

In his four lectures Stuart Russell asserts the stance of “human chauvinism” stating that humans must always control the earth even when machines are much smarter than they are. He provides no justification for this stance. He doesn't mention basic goodness of human beings. AI could ensure big true democracies continue uninterrupted and uncorrupted and could provide that guarantee via benign means. Russell does not mention GPT-3 or the ineffable, or threats to democracy. His text could easily have been written seven years ago. His described system for maximizing the realization of human preferences is completely impractical and will not work. “The machine learns 8 billion different predictive models to account for everyone on earth.” Many of the human preferences will be directly opposed to each other, and Russell provides no means for fairly adjudicating this, or justifying the weighing of different preferences.

Russell's views run directly counter to the views of Rich Sutton and to my own views as expressed in the original promo for the Future and All That Jazz* from 2016 at Minute 2:16 (Solez, 2016) where I describe a utopia with machines in charge:

You may be shaking your head and saying, “What will happen with machines in charge?” but just think about it. You wake up in the morning and pollution is gone, global warming is over, human conflict is prevented because whenever human beings start to fight it is wound down immediately, and all the problems in the world that humans could never fix are instantly fixed.

Stuart Russell assumes consciousness will not emerge but says if it does emerge “that changes everything”. I think most people think consciousness will appear as a natural outcome of high-level interactive brain-like computation.

*The Future and All That Jazz is a collaboration with singer Mallory Chipman where important messages of science are inserted into poetry and music and people learn them while being entertained.

The future next chapter: Foresight into human potential, enhancing the basic goodness of human beings.

For most readers the book Vital Foresight is satisfyingly rich and contains wonderful insights and useful actionable suggestions regarding most subjects that they might be interested in. However, readers who have a particular futurist bent, and readers who have taken my course on Technology and the Future of Medicine, can imagine a future world in which much more active intelligence

exists than today. This would be either because increasingly capable machines have become conscious, or because we humans have made ourselves much smarter by adding brain implants. Those readers might appreciate one extra chapter. Becoming smarter does not necessarily mean we would become much kinder, but we should make becoming kinder a primary goal. I agree with David Pearce that there is only weak evidence for the basic goodness of human beings at present, but it is a human potential strength that we could work on enhancing. Proof of such basic goodness will ensure that humans are accommodated on the earth long term by smarter than human machines that take over the future agenda of the world. We can also work on incorporating a similar basic goodness into machines, addressing the problems from both ends. And then, as this video says (Solez, 2021), we would not have to worry about predicting a positive future for human beings and machines, we could directly make that desired shared future happen. Working cooperatively with machines we would have that power. That in aggregate is what I would see a future next chapter in the book addressing.

We probably do not think enough about the change-making potential of graphics. Let us make the illustration depicting basic goodness of human beings (Fig. 2) something that inspires us to increase that potential in humanity. Let us make all the inspiring graphics in this review added to all the powerful insights in Vital Foresight move us toward the positive outcome for our species we are all hoping for. Humanity: Live Long and Prosper!

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