

2020 Los Alamos Faith and Science Forum Summer Series:

Lecture VI:
**Transhumanism, Part 2: Path Forward-
Superhighway or Rocky Road?**

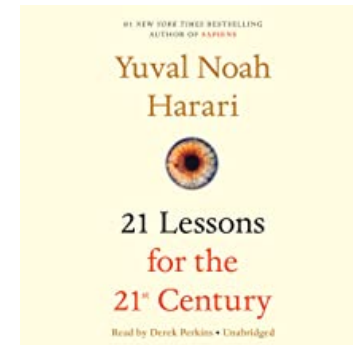
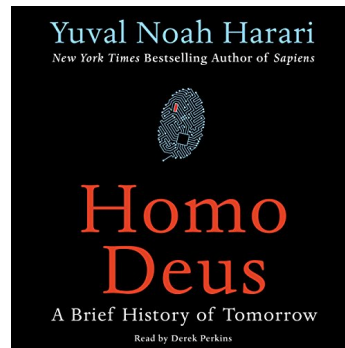
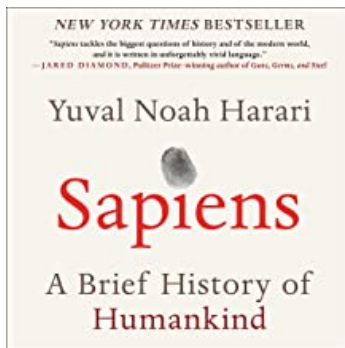
Dan Winske and Bob Reinovsky
Los Alamos Faith and Science Forum
July 8, 2020

Transhumanism Overview

- Nels Hoffman: Transhumanism, Part 1 – Bio-engineered Superhumans and the technology of:
 - Genetic editing
 - Brain-computer interfaces
 - Anti-aging research
- This talk: Two very contrasting moral and ethical views of the future of humans :
 - Dan: Yuval Harari – ‘Homo Deus’: transhumanism carried to extremes: immortality, happiness and divinity
 - Bob: Alister McGrath – Transhumanism: the philosophical, ethical, moral limitations imposed by human nature
- Jim Stump (BioLogos: 10/19) Christian perspective

Yuval Noah Harari

- Israeli, Buddhist, a far-out-of-the-box-thinker
- PhD history, Oxford
- Prof. of History, Hebrew Univ. Jerusalem
- Author of 3 recent, very successful books:
 - *Sapiens: A Brief History of Humankind* (2016)
 - *Homo Deus: A Brief History of Tomorrow* (2017)
 - *21 Lessons for the 21st Century* (2018)
- See article in *New Yorker*, Feb. 2020

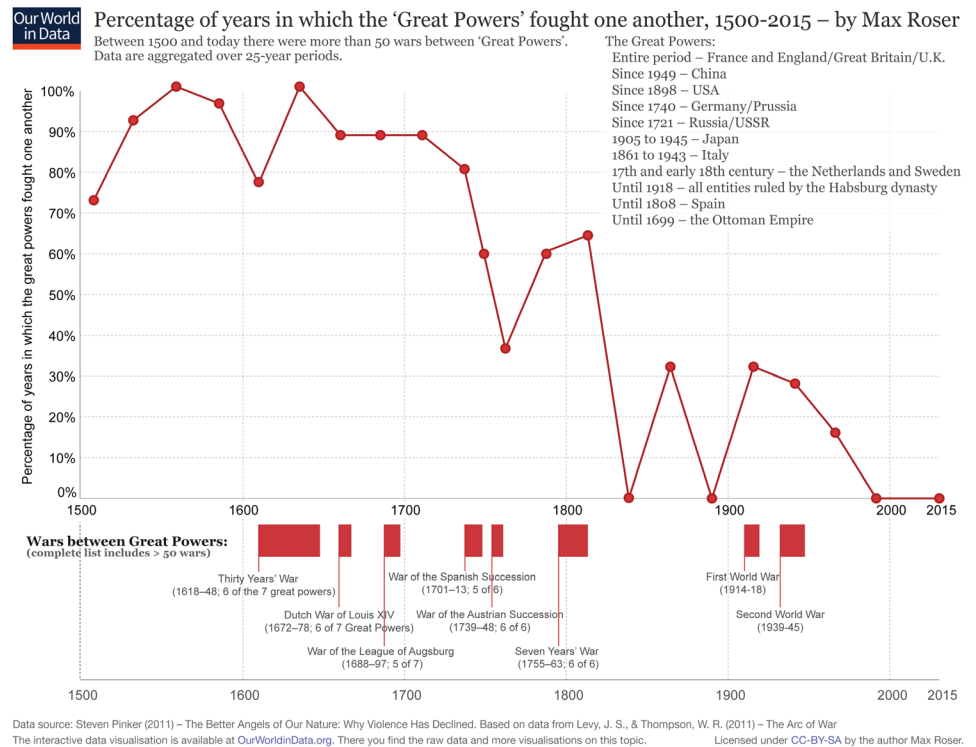


World's Biggest Problems Solved

(We've covered this already in earlier talks by Morrie & Chick)

- Famine
- Plague/Disease
- War

“Prayer, good deeds and meditation might be comforting and inspiring, but problems such as famine, plague and war can only be solved through growth... If you have a problem, you probably need more stuff and in order to have more stuff, you must produce more of it.” (Harari, p. 206)



(One of Pinker's many graphs)

Resources and Energy → Knowledge

Harari's Large Human Goals for the Future

- Immortality
- Happiness
- Divinity



Leading to a new species: Homo sapiens → Homo deus
[“transhumanism”]

Transhumanism also refers to a political and cultural movement to produce long-living super-humans who will live long enough to abandon Earth before the sun dies and establish colonies elsewhere in the universe. (e.g., *Transhumanism: Engineering the Human Condition*, Roberto Manzocco, 2019.)

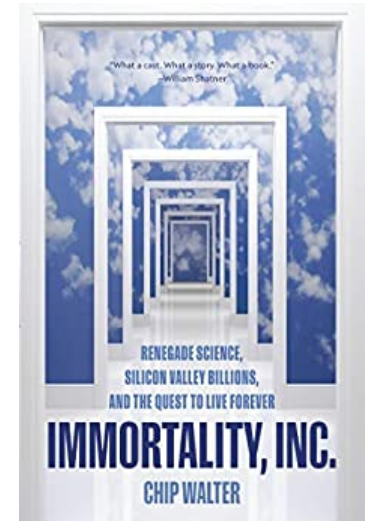


Dr. Fausto by Jean-Paul Laurens

Goal #1: Immortality

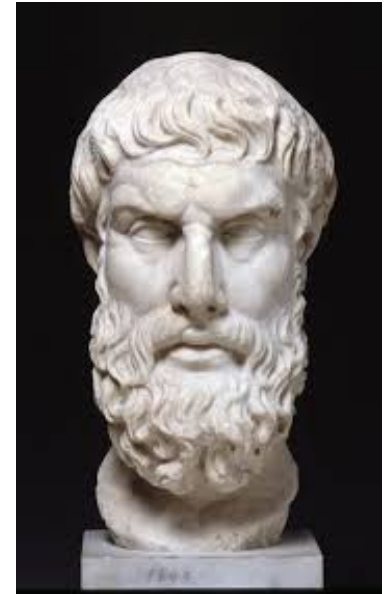
- ‘Death’ = technical glitch → find solutions*
- Writing on the wall: equality is out, immortality is in
- More modest goal: double life expectancy
- Modern medicine: doesn’t extend life, but prevents premature death
- Fear of death

*Footnote: Chip Walter: *Immortality, Inc.* (2020) – ongoing venture capital investments to find solutions



Goal #2: Happiness

- Right to happiness
- Epicurus: happiness is sole purpose of life; personal quest; but it's hard work to be happy
- Glass ceiling of happiness
 - Psychology: happy when reality matches expectations
 - Biology: happiness determined by biochemistry:
freedom from pain → pleasure → happiness
- Global happiness: re-engineer homo sapiens so we can enjoy everlasting pleasure (and thus happiness)



Goal #3: Divinity

- To overcome old age and miseries, humans will have to acquire god-like control over biological substratum:
 - Bio-engineering (alter genetic code, biochem balance, rewire brain)
 - Cyborg engineering (bionic hands, artificial eyes,...)
 - Engineering of non-organic beings: mind functions -> intelligent software
- Bid for divinity – step by step process: upgrade the self, merge with robots and computers
- Reach for bliss, divinity, immortality even if it kills us.

Where We Are Now: Modern Humanism

- Humanism = worship of humankind → conquered world
 - Future of the past – based on ideas/hopes of last 300 years
 - Humanism: find meaning without a great cosmic plan (i.e., God)
- Modern culture:
 - Experiences and desires of humans give meaning to the cosmos
 - New source of authority – accessing and gaining new knowledge
 - Modern pursuit of power within a universe devoid of meaning
 - Important role of science in creating economic growth
- Real future – ideas and hopes from 21st century – may be different (death of humanism)

Beyond Humanism: Perspectives on the Future

- Experiments: determinism & randomness → no free will, no soul, no true self
- Self as an imaginary story; story -> 'meaning' of life*
- New technology needed: democracy, free market, human rights, etc. too slow to survive
- Threats:
 - Humans will lose value completely
 - Humans will still be valuable collectively – but lose individual authority
 - Some people will remain both indispensable and undecipherable
(unheard-of abilities and unprecedented creativity)
 - Rest of humanity – will be treated as we now treat pets and animals
- Medicine: upgrade the healthy (and wealthy)
- Solution: new “techno-religions”

*Footnote: In contrast McGrath (*The Big Question*, 2015) stresses the importance of using mental maps and narratives to provide meaning and purpose to one's life.

New Techno-Religions: 1. Techno-Humanism

- Use bio- and cyborg-engineering to create new species - *homo deus*
- Upgrade the mind: study of super-normative mental states
- Cognitive 'religion' -> control the inner voices:
 - No authentic self -> so don't listen to it,
 - Instead, use new software to find best solution
 - e.g., U. S. Army's 'attention helmet'
 - > electrodes on outside of scalp stimulate brain



New Techno-Religions: 2. Data Religion (Dataism)

- Old way of learning: information -> knowledge -> wisdom
- New way: big data and algorithms
- Worship data: universe consists of data flows
 - Value of things is determined by how they contribute to data processing
 - Organisms -> data processing systems, analyzed by algorithms
 - Entire human species: single data system (humans more valuable than animals – more data)
- “Internet of All Things” – cosmic data processing system = GOD
 - (it will be everywhere and control all things)
 - Commandments (maximize data flow and produce more information)
 - Missionaries (link everything into the system)
 - Goal (freedom of information as general good for all)
- Update historical view of gaining insight: stars -> Bible -> human inner voice -> superior algorithms
- But technology not determined – probabilities not predictions!

In Summary, Harari Predicts:

The future will bring you:

- Happiness
- Immortality
- Divinity

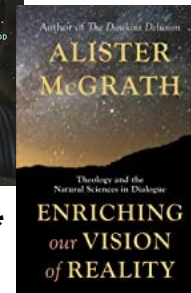
But is this really possible?

- The rest of this story – based on books by Alister McGrath – paints a very different picture when the deeper philosophical, ethical and moral issues are examined.

Alister McGrath



- Irish, Anglican priest, theologian, Christian apologist, intellectual historian
- PhD chemistry, Oxford
- Prof. of Science and Religion, Oxford
- Professor of Divinity, Gresham College
- Recently, the author of three important, accessible books on relationship of science and religion
 - *The Big Question* (2015)
 - *Enriching our Vision of Reality* (2016)
 - *The Great Mystery* (2017):
*Science, God, and the Human Quest for Meaning**
- *The Great Mystery* is written in three Parts:
 - Wondering about Ourselves
 - Wondering about Life: the human quest for meaning
 - Wondering about our Future”
- Focus on the third section “Wondering about the future”



*Reminiscent of Jonathan Sacks “The Great Partnership: Science, Religion and the Search for Meaning”

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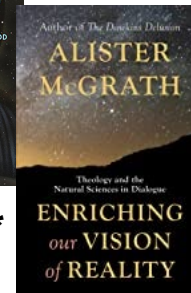
-- *Enriching our Vision of Reality* (2016)

-- *The Great Mystery* (2017):
*Science, God, and the Human Quest for Meaning**

- *The Great Mystery* is written in three Parts:

In Part 3: “Wondering about the Future”, Mc Grath takes on three topics:

- What’s wrong with us? Why we need the Idea of Sin
- Humanisms: Secular and Religious
- The Myth of Progress: Reshaping Humanity



e”

*Reminiscent of Jonathan Sacks “The Great Partnership: Science, Religion and the Search for Meaning

BLUF While McGrath is not directly responding to Harari, “The Great Mystery” explores social, moral, ethical and religious aspects of the human condition that may place some limits on the future of humanity.

- **The human aspiration to Divinity**
 - The Human Dilemma: we like to think we are fundamentally good...
- **The human quest for Happiness**
 - The Myth of Progress: things just keep getting better and better
- **The human longing for Immortality**
 - Quest to escape the fundamental limitation of being human

McGrath considers the limitation of human nature to place more restrictions on the future of humanity than any limitations that are imposed by technological progress

McGrath distinguishes between classical humanism, modern secular humanism, and touches on trans-humanism

- **The Renaissance: The Historical Origins of Humanism**
 - Renaissance humanist were not anti-religious, nor ideological,
 - Aimed at renewing the Church and the revival of “good letters”
 - Education and the study of “humanities” history, rhetoric as the key to humanity’s future
- **Modern Secular Humanism, New Atheism (21st Century,) has tried to hijack classical humanism (and Erasmus too)**
 - Religion is a problem for Secular Humanism
 - Secular Humanism pivots on the belief in the fundamental goodness of humanity without need for the non-material, transcendental, or spiritual influence
 - ... but simultaneously claims that human thought created concept of God and Religion, AND blames those thought constructs for all the evil and nastiness in the world... an apparent contradiction.
 - The Threat from Secular Humanism is that of De-humanization
 - Dehumanization: In-group demonizing the out-group
 - Commodifying humanity, persons as objects of profit
 - Ideologies leading to great atrocities
- **Trans-humanism, the expectation of transforming the human species into something else (through technology), is seeks to escape the biological realities of being – human.**



The human aspiration to Divinity hits a speed-bump in what McGrath calls “The Human Dilemma” ... the human propensity to engage in evil*

- Unlike millions of species that disappeared in extinction events, humans alone seem to devote effort and energy to bringing about our own destruction.

- Abuse of the environment, WMD’s or novel pathogens.



- **Framing the Human Dilemma**

- Humans like to think we are fundamentally good – and therefore can aspire to divinity
- Yet everyone knows that’s not right.
- New Atheism claims that religion is the source of humanity’s ills, and that we can overcome our innate tendency to evil (violence, injustice, oppression) by our “own devices.”



- **One difficulty with an aspiration to divinity as a future for humanity is this troubling persistence of evil....**

- The 18th century proclaimed the rationality and harmony of the universe and the privileged position of humans as both interpreters and inhabitants of that “ordered paradise”
- The 19th century admitted the existence and experience of evil, but began to insist that evil was being eliminated by progress....
- The experiences of the 20th century: Hiroshima, Auschwitz, apartheid remind us that evil has not been, and likely will not be, completely eliminated by progress

*EVIL: -- actions that directly or indirectly hurt other humans – actions that break human relationships
 from Lecture #3Theodacy -- Keller

The human aspiration to Divinity hits a speed-bump in what McGrath calls “The Human Dilemma” ... the human propensity to engage in evil



- McGrath reminds us that we need to face up to the fact that, as a species, human beings use violence, injustice and oppression to achieve our own ends, and we use technology to extend the reach of that violence.

- Religion doesn't cause this tendency; it merely reflects it
- If we are to put an end to evil, and approach divinity, we need to change something fundamental

- **The Corruption of Scientific Innocence**

- Science is objectively neutral – but humans are capable to using it for evil (eg Louis Fiesers and napalm)


- **False solutions to the human dilemma (look inside ourselves)**

- Denying there is a problem
- Ignoring, or modifying history
- Equating being good with being human
- Declaring good and evil as “social constructs”
- Segregating humanity into “good” and “evil”

- **McGrath thinks we need help!**

“The line dividing good and evil cuts through the heart of every human being. And who is willing to destroy a piece of his own heart?” (Solzhenitsyn)

The human quest for Happiness seems to be based in the idea that reduction of “pain” (physical, moral, emotional) will result in a greater level of human satisfaction

- The dominant narrative of Western culture during and since the Enlightenment is that of “progress” and the perception that progress reduces pain
 - Improvements in objectively measurable quantities (e.g. life expectancy, GDP)
 - Improvement in the human condition and growth of virtue (e.g. tolerance, freedom, equality)
 - Improved understanding of the world, and more reliable narrative about it (science)
- Things are not simply changing; they are getting better – and that leads to greater levels of human satisfaction (Happiness)
- Without doubt there are constant improvements in human society and social conditions through advances in scientific understanding and technology... but
 - Advances in medical and agricultural technology fight disease and ease hunger, but each brings costs and risks
 - Technological enhancements in war-fighting starting at WWI caused J.R.R. Tolkien to view the “machine” (technology) as a metaphor for human lust for power over others...
 - We successfully refine plant and animal species by selective breeding – but it’s a small step to Eugenics
 - Technological advances in one area sometimes mask moral and ethical retreats in other, sometimes closely, associated areas .
 - Technology has changed things for the better – and sometimes simultaneously for the worse.

The human quest for Happiness seems to be based in the idea that reduction of “pain” (physical, moral, emotional) will result in a greater level of human satisfaction

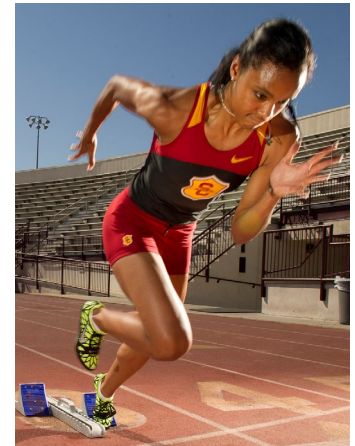
- **Maintaining the reality and the perception of progress is a tricky thing**
 - Depends on ideological perspectives not direct observation
 - Judging progress requires making some assumptions – (e.g. moral values.)
 - Progress from one perspective may be regression and degeneration from another perspective. (Marxism/Capitalism)
- **... and depends , crucially, upon identifying the right goal and doing what is necessary to move ourselves and others towards it.**
 - Progress means getting nearer to the place you want to be. And if you have taken a wrong turning, then to go forward does not get you nearer. If you are on the wrong road, progress means doing an about-face (C.S. Lewis)

Linking human happiness to the (questionable) concept of unlimited progress seems to miss much of what brings meaning and richness to life – and to the future

Immortality

The human quest for Immortality seems to be based in the desire to escape the biological realities of beinghuman.

- **Human beings are driven by the desire to deny death, transcend it, or create meaning in its face.*** (Ernest Becker, “The Denial of Death”1973)
 - Awareness of death is an “unbearable truth” from which society attempts to insulate its members, in part, by building narratives that seek meaning in the face of this chaotic universe” (Peter Berger “The Sacred Canopy”, 1965)
- **Perhaps our longing for paradise is actually a desire to escape the limits of being human... transcending our biological origins --- through technological enhancement**
 - Individuals could expect to live for more than 500 years;
 - Much of the population could have cognitive capabilities more than two standard deviations above present human maximum;
 - Psychological suffering would become rare...
 - Bypassing “evolutionary lag” of relatively slow adaptation of the gnome – edit the gnome for lactose tolerance.*
 - Synthetic red blood cell that outperform the natural ones boosting overall performance
- **Transhumanists often assume that technological augmentation of natural human cognitive capacities will lead to moral excellence.**



Immortality

The human quest for Immortality seems to be based in the desire to escape the biological realities of beinghuman.

- **Most of the questions about Transhumanism do not concern how this could be done, but whether it should be done.**
 - Technological enhancements are expensive – pursued at the cost of increase global inequality;
 - An increase life expectancy (500 years) implies that world population must level off (or decrease);
 - Increased life expectancy could “crowd-out” innovation, so there is no intellectual, or economic, space for the newcomer. .
 - Direct correlation between cognitive capacity and moral discernment is contestable –
 - Will trans-humans end up treating humans as an inferior race.
- **Soviet-era ‘Immortalization Commission’ to assert human capacity to achieve immortality by preserving human bodies for future technological resuscitation** (Leonid Krasin)
 - ...and do the Christian doctrine of the resurrection of the body one better by defeating death itself.
 - Their effort failed on both counts

Wisely, transhumanism has limited itself to the postponement of the inevitable, rather than promising the impossible -- McGrath

In Summary,



Harari: Offers a vision for the (far)future that promises:

...but at a cost of:

- **Happiness**
- **Immortality**
- **Divinity**

Respect for life,
Respect for humanity,
Respect for God and
Traditional Religion

Our discussion, tonight suggests that the future of humanity is more determined by fundamental aspects of the human condition than by technology:

- The human propensity to engage in evil limits our quest for Divinity
- The fallacy of expecting unlimited progress limits our quest for Happiness
- Realistic views of Trans-human technology limits our expectation of Immortality



McGrath:

Offers three recommendations as his view of the future of humanity

- **Humility:** Recognizing that reality is a lot bigger than we are
- **Generosity:** We must learn to live with unresolved questions
- **Wonder:** A willingness to expand our vision

It is yours to choose

Next Week – July 15 – Final Session of the Season

Near Death Experiences

Glenn Magelssen and Susan Sprake

Abstract

Over the last thirty to forty years there has been increased interest in the events surrounding a near death experience. Elisabeth Kubler-Ross and Raymond A. Moody Jr. began interviewing people with this experience and soon realized the shared stories had many similarities. There was a striking pattern to the experiences of the individuals, but the number of people interviewed was small. More recently, Jefferey Long has interviewed more than 1300 persons. Each interview did not necessarily contain all the pattern elements, but each interview did fit within the different pattern elements. I'll describe and present examples of these. An example of one of the events that is contained in the pattern and experienced by more than 50% of those interviewed is one called "an out of body happening". In this case the dying person describes leaving his/her body and is able to look at the dying body at a distance. The person is able to watch how the doctors and nurses are working to try to bring life back. When the person returns to the body and is able to talk to the doctors and nurses, the person is able to describe accurately what they were doing when trying to bring the person back to life. We will take a short look at possible explanations for the behavioral pattern.

Abstract

In this second half of the discussion of the future of humanity, referred to as transhumanism, we consider two very different perspectives. These views are based on two books: *Homo Deus* by Yuval Harari, an Israeli historian and bestselling author of his previous book, *Sapiens*, and *The Great Mystery*, the latest of a series of books on science and religion by Oxford Professor of Science and Religion, Alister McGrath. First, we consider Yuval Harari's look very far in the future, when humans are merged with robots and computers to produce a new species, which he terms *homo deus*, and the development of "The Internet of All Things" that manages everything in the universe. In contrast, in the second part of this talk we consider Alister McGrath's view that the inherent nature of humans, and their inclination to doing both good and evil, will limit to what can be accomplished and even that has to be carefully monitored to prevent global catastrophe.

Yuval Noah Harari, *Homo Deus: A Brief History of Tomorrow*, Harper Perennial, New York, 2017.

Alister McGrath, *The Great Mystery: Science, God and the Human Quest for Meaning*, Hodder and Stroughton, London, 2017.

Bios

- **Dan Winske** is a retired Fellow of the Los Alamos National Laboratory. He received his B.S. from Purdue University and his M. S. and Ph. D. from the University of Illinois Urbana-Champaign, all in Physics. At the Lab he spent more than 30 years as a theoretical and computational plasma physicist specializing in space physics and defense applications. And he remains one of those old retired guys that keeps finding their way back into the office. He is a member of Immaculate Heart of Mary Catholic Church. He is a founding member of the Los Alamos Faith and Science Forum and currently serves as its president.
- **Bob Reinovsky** is currently a Program Manager at Los Alamos National Laboratory where he has worked for 34 years. He received his BS, ME, and PhD from Rensselaer Polytechnic Institute and served 21 years in the USAF. His research interests include plasma physics, hydrodynamics, materials properties and pulsed power technology. He is a Fellow of the IEEE, member of White Rock Presbyterian Church, a founding member of the Forum, and currently its vice-president.