



誰もが自在に活躍できるアバター共生社会

Avatar-Symbiotic Society Where Everyone Can Perform Active Roles Without Constraint

ロボットやCGアバターなどの形態をとり、遠隔操作で自分の分身として活動できるサイバネティック・アバター（CA）。CAを使えば誰でも、人に寄り添い思いやりのある対話ができるようになる。育児や介護をしている人、高齢者など、使える時間が限られていたり、身体の動きに制限があったりする人でも、CAを用いれば様々な社会活動に参加できる。2050年には、専門家だけでなく誰もが、CAを使って自由に活動できるようになるだろう。あらゆる人々が自分の能力をさらに広げ、活躍できる社会が訪れるはずだ。

Cybernetic Avatars (CAs) exist in forms such as robots and computer graphics avatars and make it possible for people to undertake activities remotely, becoming our alter egos. Using CAs, anyone can carry out friendly and considerate conversations. Even people with limited time or facing limitations in their physical movements—such as the elderly and people taking care of children or family members—can participate in social activities through CAs. By 2050, everyone, not only specialists, will be able to use CAs to conduct activities without constraint. CAs will bring about a society where everyone can further expand their abilities and perform active roles.



Photo by Kurima Sakai

JSTムーンショット型研究開発事業 目標1 研究開発プロジェクト
「誰もが自在に活躍できるアバター共生社会の実現」

iPS細胞による心筋再生 Development of Myocardial Regeneration

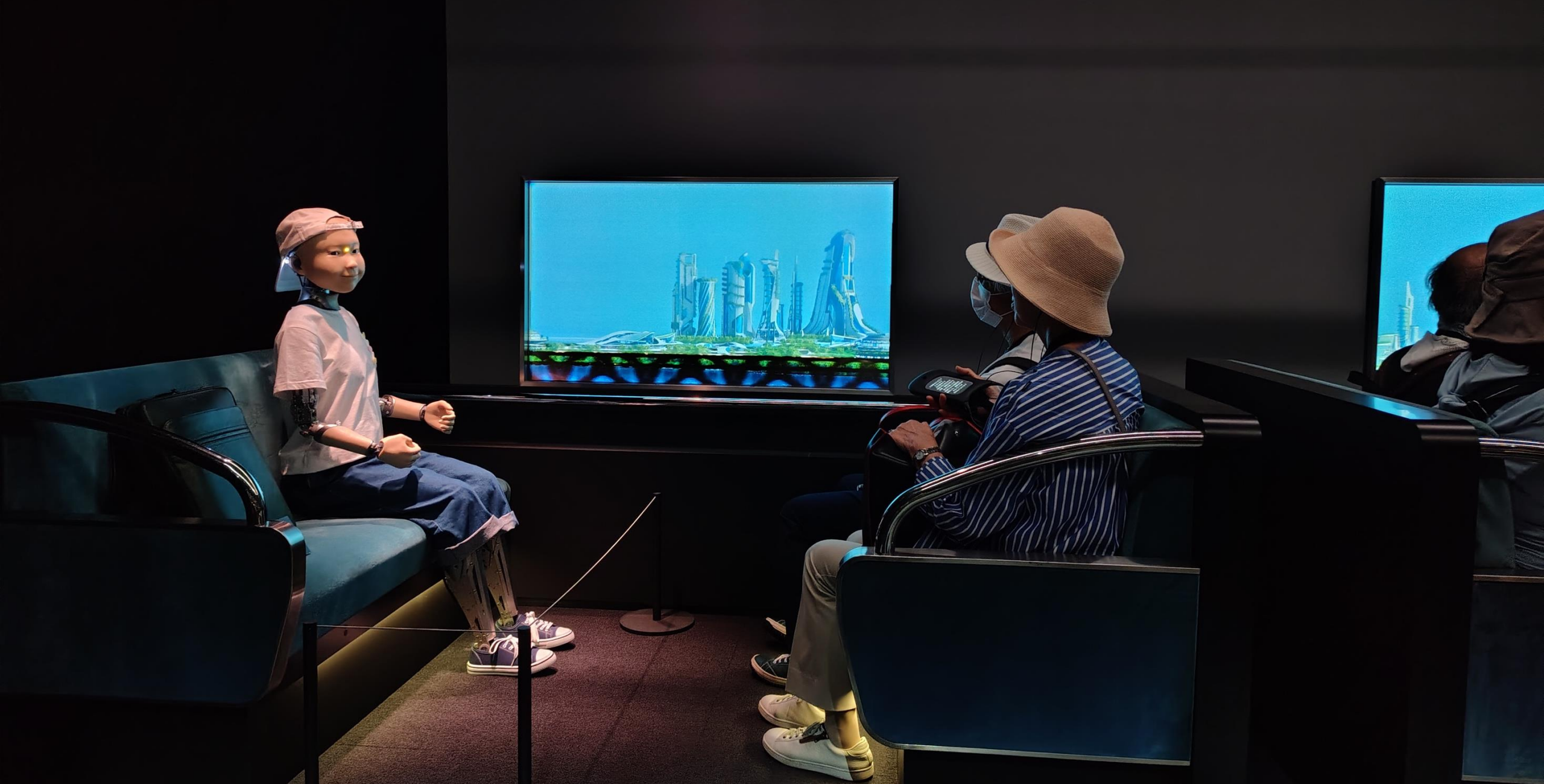
iPS細胞から創り出した心筋細胞シートを用いた治療法に関する科学的根拠をもとに、2020年より大阪大学で臨床試験が完了し、全例順調に経過している。阪大発ベンチャー企業クオリプス株式会社（大阪大学発ベンチャー）による心筋再生治療製品の実用化が期待される。

The development of myocardial regeneration therapy using iPS cells has been supported by scientific evidence from numerous research results, involving Osaka University. Treatment for eight cases has been completed, and the company spun out of Osaka University, has been finalized. It is anticipated to be commercially available.



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Endowed Chair of Future Medicine, Graduate School of Medicine, The University of Osaka
クオリプス株式会社（大阪大学発ベンチャー）
Cuoripus Inc.







Birth rate crisis

More babies (paying women does not work)

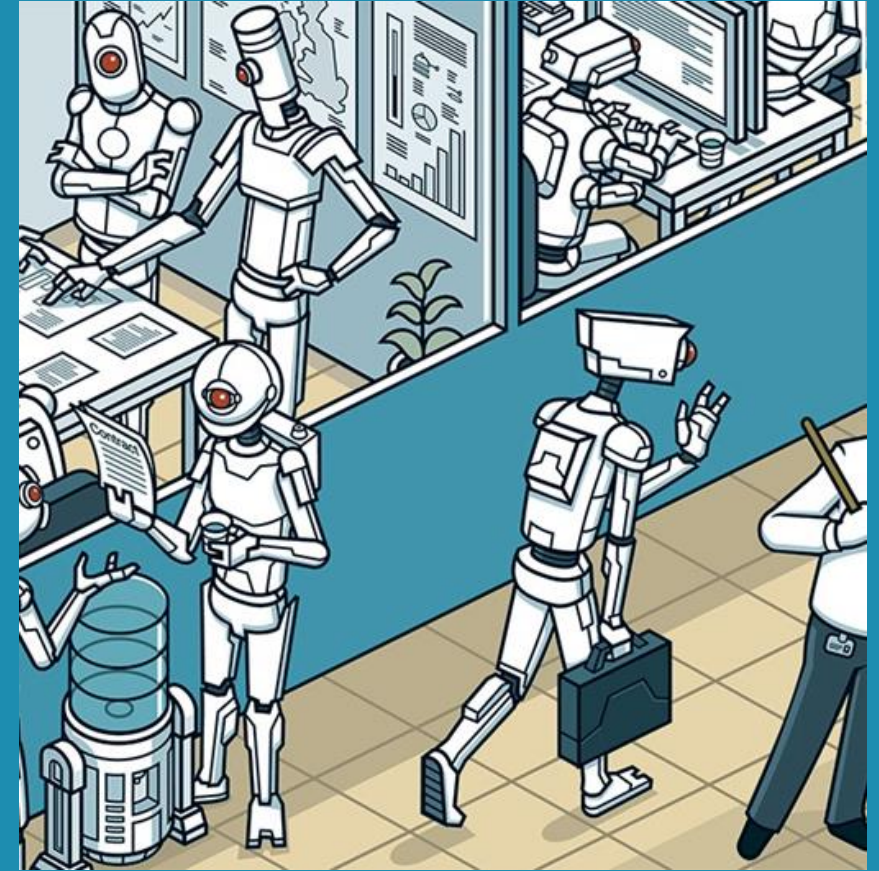
More labor migration (politically unpopular)

More automation (Japan's preferred solution)

...

Increased retirement age (was not mentioned; insufficient solution when replacement rate is 0.7 like in Korea...)

Imagining the (distant) future of work

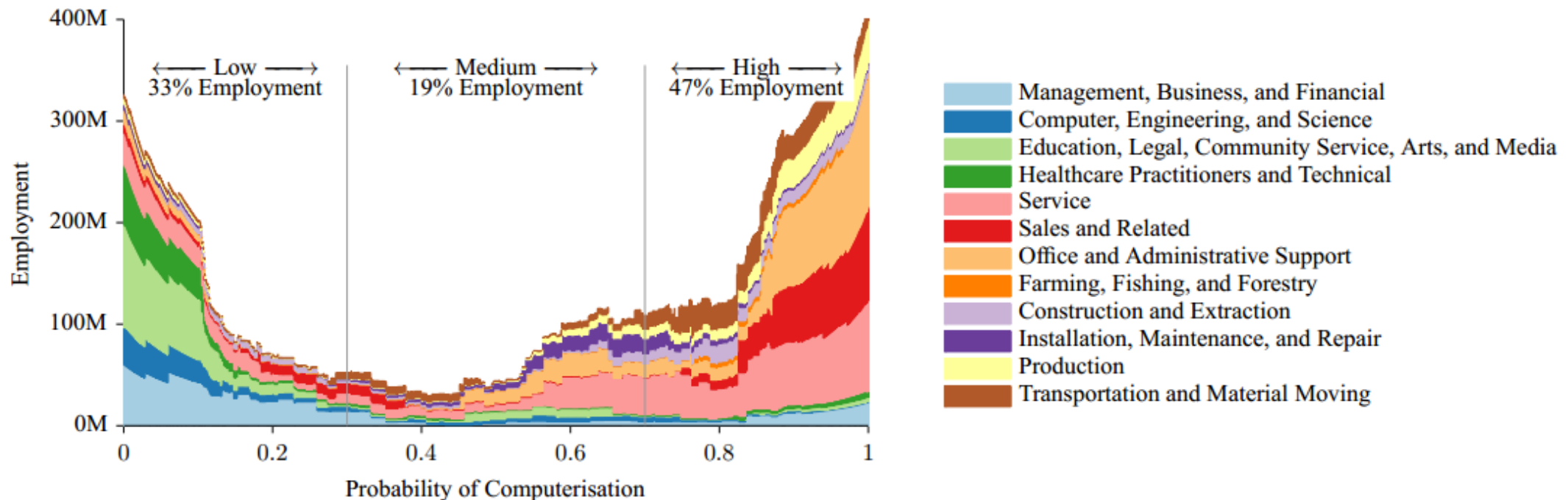


Nicky Dries, KU Leuven / BI Norwegian Business School
Faculty of Economics & Business / Department of Leadership & Organizational Behavior

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The prediction paradigm

“47 per cent of occupations in the United States are at 'high risk' of automation in the next 10 to 20 years”

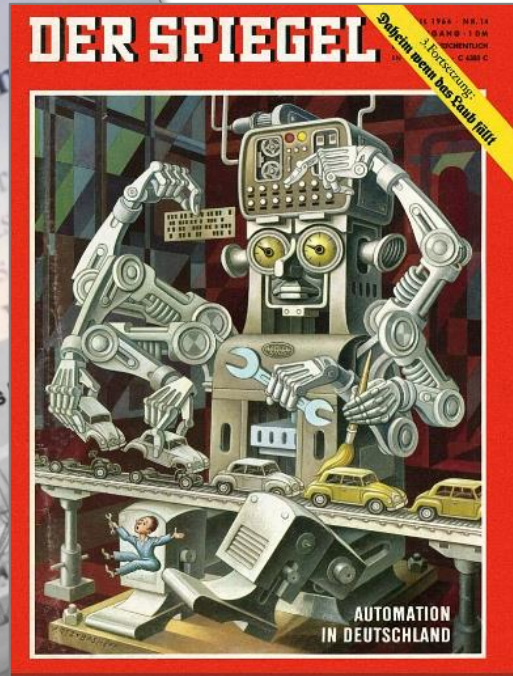


(Frey & Osborne, 2013, “The Future of Employment: How susceptible are jobs to computerisation?”)

The ... with predictions (1/3)



(New York Times, 1903)



(Der Spiegel, 1964, 1978, 2016)



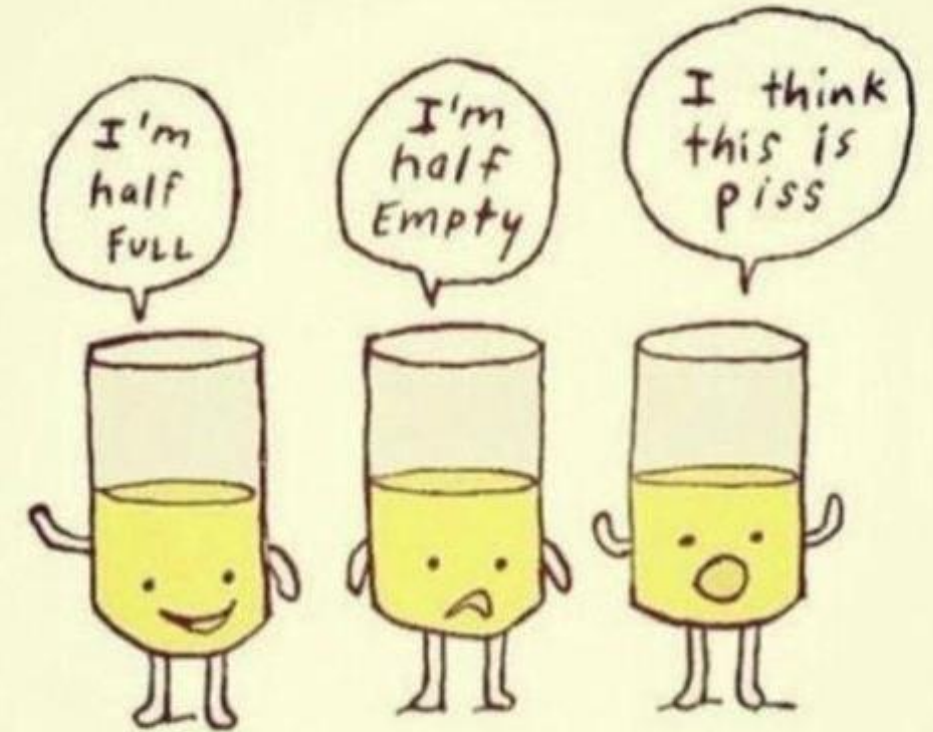
(Daily Mail, 2000)

The problem with predictions (2/3)

Optimists = Tend to focus on the potential of new technologies to augment human labor.

Pessimists = Focus on the threat of automation and the massive job loss that would come with.

Sceptics = Believe that claims about the velocity and scope of projected transformations in the world of work are vastly exaggerated, and that the future will look more or less like the present, with a few tweaks here and there.



(Dries, Luyckx, & Rogiers, 2024: "Imagining the (distant) future of work")

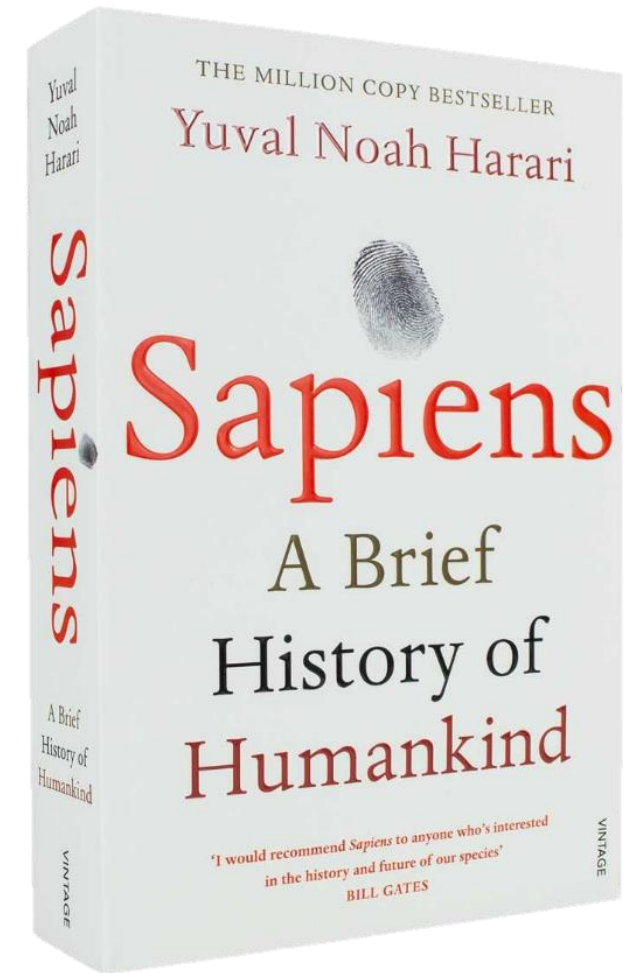
The problem with predictions (3/3)

First-order chaos = Events that do not respond to prediction. For example: the weather. A weather forecast with a good level of accuracy will 'come true' based on its accuracy, not because the weather adapts to the prediction.

Second-order chaos = Events that do respond to prediction. For example: political elections and the stock market. This makes them less predictable.

►► **The illusion of determinism:** “Only one path leads from the past to the present, but from the present many possible paths branch out to the future.”

(Harari, 2015: “*Sapiens: A Brief History of Humankind*”)



The Future
Does Not Exist



Business And Society

What 570 Experts Predict the Future of Work Will Look Like

by Nicky Dries, Joost Luyckx and Philip Rogiers

September 16, 2024



Andriy Omelchenko/Getty Images

Summary. No one knows exactly what the future of work will look like, but many people have opinions. Research involving Belgian newspaper articles and experts shows that public commentators on the topic tend to fall into three buckets: optimists (largely tech entrepreneurs), skeptics (largely economists), and pessimists (authors and journalists). So, who's right — should

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<https://hbr.org/2024/09/what-570-experts-predict-the-future-of-work-will-look-like>

The jobocalypse

A Timeline of Future-of-Work Predictions

When asked to rank the likelihood of predictions made by tech entrepreneurs, economists, and journalists in 485 newspaper articles, 570 experts from these fields landed on the following course of events as most likely to occur.

- 2025: Technology requires constant re/upskilling by workers.
- 2026: Job tasks are partially automated.
- 2029: New technologies create new types of occupations and industries.
- 2030: More and more occupations are augmented by AI, helping people work more efficiently and productively.
- 2033: Major ecological disasters occur.
- 2035: Economic inequality increases dramatically.
- 2037: People work alongside robot colleagues. More and more jobs are entirely replaced by technology.
- 2042: Third world war breaks out.

<https://hbr.org/2024/09/what-570-experts-predict-the-future-of-work-will-look-like>

- 2044: Surveillance societies become the norm worldwide.
- 2046: Automation leads to shorter workweeks, increased leisure time, and a renaissance of human craftwork.
- 2050: Labor markets worldwide are faced with mass unemployment.
- 2051: Governments introduce universal basic income.
- 2052: Humanity depends on technology for everything.
- 2053: Breakthroughs in longevity research drastically extend the lifespan of the technocratic elite.
- 2063: Technocratic elites start colonizing other planets.
- 2065: All human qualities are surpassed by intelligent technology.
- 2074: Human civilization is irreversibly changed by an uncontrollable superintelligence beyond our comprehension (technological singularity).



Economy/labor market expert master narrative

Re- and Upskilling narrative:

Since the Industrial Revolution, increases in productivity have consistently led to increases in employment. Mass-scale automation and job destruction have been predicted many times in history, but these predictions have always been wrong. The Fourth Industrial Revolution will be a good thing for mankind. Routine tasks and dangerous or dirty work will be outsourced to machines and AI, while new jobs and industries will be created as a result of technological progress. Constant re- and upskilling of workers will be needed, finally creating a labor market climate of lifelong learning.

Tech/innovation expert master narrative

Augmentation narrative:

Post-World War II technology has given us the moon landing, the personal computer, and the smartphone. Only by dreaming and by taking grand leaps of faith can mankind advance itself. Fears about robots and AI are understandable, but unnecessary, and government's pesky regulations are only hindering technological progress. Technology in itself is never inherently "good" or "bad"; it is what mankind does with it that matters.

Capitalist Realism (TINA)

(Central master narrative)

Job Destruction narrative:

For the first time in human history the age-old economic law, that an increase in productivity will lead to an increase in employment, will not hold. If capital owners can achieve growth without labor costs—thanks to a workforce of robots and algorithms that is never sick, never needs a break, and never complains—they will do exactly that. Historically, the onset of any Industrial Revolution has been characterized by terrible circumstances for workers. We need a big state, with strict government oversight and regulations, to prevent this.

Effective Accelerationism (Technocracy)

Author/journalist master narrative

Exterminism narrative:

The wealth of Western nations was built on the backs of modern slaves in low-wage countries; job destruction caused by large-scale automation will only make things worse. If left unregulated, tech companies—who tend to lack a social conscience and are currently freely experimenting with AI—may open a Pandora's box and unleash unimaginable technologies upon mankind. Governments, on their end, may exploit citizens' fears around safety in an ever-changing world to implement social credit systems.

Degrowth (System Change)

Work Deintensification narrative:

Keynes predicted that by the end of the 20th century, Western countries would have a 15-hour work week. Instead, work intensity and burn-outs—driven by an unequal division of income between capital and labor—have only increased in recent decades. By introducing a universal basic income, we can counter potential negative effects of automation, and re-humanize human labor—in the process creating a post-scarcity society with decentralized governance.

Figure legend

----- .. goes hand in hand with ..

<---> .. counters ..

<==> .. delegitimizes ..

-----> .. is believed to lead to ..

---> .. legitimizes ..

(Dries, Luyckx, & Rogiers, 2024: "Imagining the (distant) future of work")

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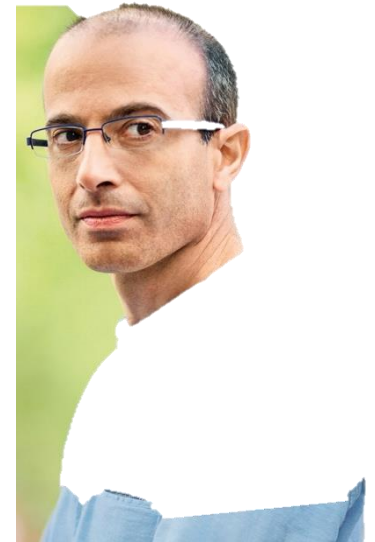
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		Near future: New Tech, Acceptance, Trust, Information Seeking		Distant future: Politics, Ideology, Social Movements	
	Never	Good	Bad	Good	Bad
Possible actions	<i>Imagine</i>	<i>Support</i>	<i>Resist</i>	<i>Co-create</i>	<i>Lobby/regulate</i>

Where to start?

- ✓ When you read something about the future of work, don't just look at *what* is predicted and by *when*, but *who* is saying it and *why* (what society do they want? how does it benefit them?)
- ✓ What is *your* utopia/dystopia? What society do you (not) want?
- ✓ What should we do (or stop doing) in the short, mid, and long term:
 - ☐ To move towards desirable scenarios?
 - ☐ To reduce the risk of undesirable scenarios?
 - ☐ That can create 'points of no return' for the distant future?
 - ☐ That we have most control over, from our role/position of influence? (*cf. career choice*)
 - ☐ To partner with others who have control/influence we don't have?

The Future Is What We Make It



Comments?
Questions?



Contact me at nicky.dries@kuleuven.be