

ARTIFICIAL INTELLIGENCE

INTO THE ROARING TWENTIES

The roaring twenties is set to be the most important decade in human history, thanks to the continued exponential growth of artificial intelligence and related technologies.

By Calum Chace

Keynote speaker and bestselling author

The darkest hour is just before the dawn," said an English theologian called Thomas Fuller in 1650, and many people since. Covid-19 has been a terrible plague, like many terrible plagues before. At the time of writing it has killed two million people worldwide, and tragically, it will kill many more this year.

This gives corporate communications professionals a problem. No business wants to get bogged down in bad news. Far better to accentuate the positive, to strike a cheery note and encourage staff, customers, and other stakeholders to look on the bright side of life – especially of the company's impact on their lives.

This may seem impossible today. US politics has stabilised somewhat, but Covid's third wave is shaping up to be worse than its predecessors, and there is no shortage of things to worry about.

Two million people have left widows and orphans to grieve them, and millions more face economic ruin or lasting insecurity. In some countries, incompetent political

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leaders have made the situation far worse than it need have been. The recovery is likely to be K-shaped, with certain sections of society faring consistently worse than others. The scale of the human suffering is immense.

Covid is a relentlessly bad news story, and yet it could have been much worse. In the 14th century, the Black Death killed a third of Europe's population.

Since the start of the industrial revolution, technology has transformed everything about our lives.

Some people claim we are now in the fourth industrial revolution, but this is misleading. A better explanation is that we are in the early stages of the information revolution, which is an even more profoundly transformative process.

Many of our technologies are improving exponentially, including computing, where the process is known as Moore's Law, a phenomenon whose death has been greatly exaggerated for years.



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Increasingly, our most powerful technology is artificial intelligence, or AI. This experienced a Big Bang in 2012, when deep learning began to fulfil the long-delayed promise of artificial neural networks. Since then, Google and the other tech giants have created miracles like search, maps, and translation, and in the process have made themselves the world's biggest and richest companies.

Covid-19 pandemic accelerates growth

Cynics enjoy pointing out that AI has so far failed to transform the rest of the economy. They are right, but this is simply Amara's Law in action: we over-estimate what technology will achieve in the short term (two to five years), and under-estimate the long-term (ten to twenty).

In the 2020s we will all start to see cars driving themselves around our cities, we will have conversations with our smartphones, and those smartphones will probably start to be replaced by smart glasses equipped with impressive applications of augmented reality. Many historians believe that in 14th century Europe, the Black Death helped to spark the Renaissance.



In the 20th century, the Spanish flu was followed by a decade of rapid economic expansion, and cultural and artistic exuberance. Jazz bloomed, flappers danced, and art deco reigned supreme.

Cars, phones, radio and domestic electrical appliances were everywhere. As the threat of Covid lifts, and as exponential technology growth persists, the 21st century will surely see a similar flourishing.

Progress awaits, but this is not without setback

It won't be just AI. The remarkably rapid development of Covid vaccines is a foretaste of astounding benefits from biotechnology this decade – probably including the beginning of significant extensions of healthy human lifespans.

The continued rapid decline in the cost of renewable energy sources will see swathes of the economy switch away from fossil fuels, and may alleviate some of the concern about a boiling planet. Vertical farms and lab-grown meat will join automation and robots in turning agriculture upside down.

As both symbol and summit of these achievements, we will take firm steps towards becoming multi-planetary: re-usable rockets and rediscovered ambition will take us back to the moon, and maybe even to Mars. Progress will not be smooth. There will be delays, setbacks, and reversals. Populism lingers, and our politics is dangerously fractious. This is not a Hollywood movie, and a successful outcome is not pre-ordained.

The Roaring Twenties culminated in the Wall Street Crash of 1929 and the Great Depression, which led to the rise of fascism, and the terrible conflagration of the Second World War.



(...) the roaring twenties will propel us ever closer to the greatest challenges of this century: the two singularities.



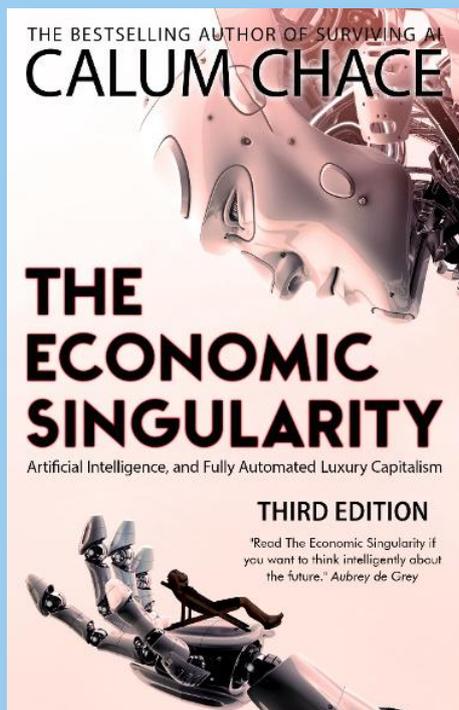
Great challenges lie ahead for us too. In fact, the roaring twenties will propel us ever closer to the greatest challenges of this century: the two singularities.

In the economic singularity, capitalism will have to adapt to the automation of most jobs. The technological singularity is what happens if and when we create a superintelligence, and we become the second-smartest species on the planet. We can and must rise to these challenges, and

the sooner more of us start taking them seriously, the better. But for now, take heart. Despite this pre-dawn darkness, the roaring twenties will probably be the best decade in human history so far – and also the most interesting and the most important one.

Which gives corporate communications professionals a terrific opportunity to do what they like best: accentuate the positive, and celebrate good news.

Book review: The Economic Singularity



The Economic Singularity is the time when most people cannot find employment, because machines can do everything that humans can do for money cheaper, faster, and better than they can. Some people say

this will never happen, but most AI professionals think it will, although they disagree about when. Artificial intelligence (AI) is already superhuman at absorbing and processing information.

Robots are becoming increasingly dextrous, flexible, and safe to be around (except the military ones). AI is our most powerful technology, and you need to understand it.

This new third edition of Calum Chace's best-selling book is substantially updated and extended. It argues that the Economic Singularity is the most important challenge facing humanity in the first half of the 21st century – and also its most exciting opportunity.

Self-driving cars and smartphones you can have a conversation with may be the canaries in the coal mine, providing a wake-up call for everyone who isn't yet paying attention. All jobs will be affected, from fast food McJobs to lawyers and journalists.

The fashionable belief that Universal Basic Income is the solution is only partly correct. We are probably going to need an entirely new economic system, and we should start planning for the Economic Singularity soon.

Chace argues that the outcome can be very good – a world in which machines do all the boring jobs and humans do pretty much what they please. But he warns there are major risks, which we can only avoid by being alert to the possible futures and planning how to avoid the negative ones.

Chace has been writing about AI since 1980, and has written two best-selling non-fiction books, and also two novels on the subject. In 2017 he co-founded the think tank, the Economic Singularity Foundation.

As the BBC's Hugh Pym says, "Calum Chace is an acknowledged expert on the likely impact of artificial intelligence on society. In this book, he arrives at some surprising and radical conclusions, which merit careful consideration."



CALUM CHACE

*Keynote speaker and
bestselling author*

Calum Chace is a sought-after keynote speaker and best-selling writer on artificial intelligence. He focuses on the medium- and long-term impact of AI on all of us, our societies and our economies. His non-fiction books on AI are *Surviving AI*, about strong AI and superintelligence, and *The Economic Singularity*, about the prospect of widespread technological unemployment.

He also wrote *Pandora's Brain*, a techno-thriller about the first superintelligence. He is a regular contributor to *Forbes*. In the last four years, Calum has given over 120 talks in 18 countries on five continents. Videos of his talks, and lots of other materials are available at www.pandoras-brain.com.

He is co-founder of a think tank focused on the future of jobs, called the Economic Singularity Foundation. The Foundation has published *Stories from 2045*, a collection of short stories written by its members.

Before becoming a full-time writer and speaker, Calum had a 30-year career in journalism and in business, as a marketer, a strategy consultant and a CEO. He studied philosophy at Oxford University, which confirmed his suspicion that science fiction is actually philosophy in fancy dress.