Seeing off the latter day Luddites

We should stop worrying about AI and welcome the opportunities it will bring, Nathan Myhrvold PhD, tech visionary and polymath, and former chief technical officer at Microsoft, told the 31st World Traders' Tacitus Lecture earlier this year. *Anat Arkin was there.*
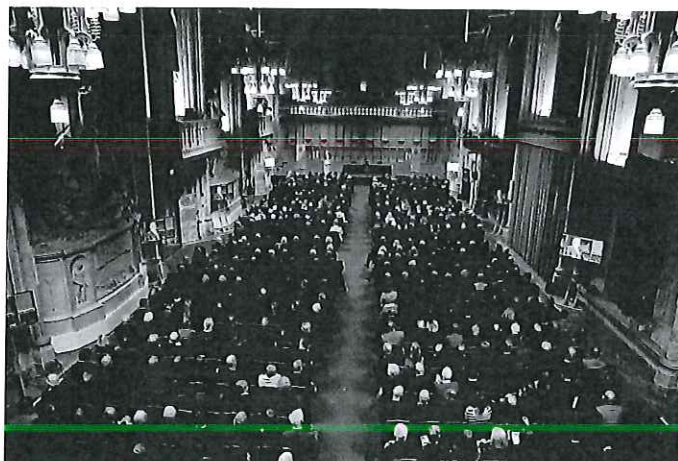
Fears that artificial intelligence (AI) and robots will cause mass unemployment are as misplaced as those that led the nineteenth century Luddites to destroy the knitting machines transforming their industry, according to Nathan Myhrvold.

The 'innovation menace', the idea that new technology will displace millions of workers and throw society into crisis has been proposed many times, he said. "And it's always been wrong. You can't find an instance of enormous societal upheaval that was caused by the adoption of a new technology."

Just as those fearing the industrial revolution mostly found new jobs in the booming economy, Dr Myhrvold continued, other technological breakthroughs have also created new opportunities. Electronic trading, originally seen as a threat to displace and impoverish City workers, has in fact strengthened the finance industry. Yet pundits are again peddling the innovation menace, arguing that this time things are somehow different.

Change

Addressing an invited audience in London's Guildhall, Dr Myhrvold, former chief technology officer at Microsoft and co-founder and chief executive of patent portfolio development company Intellectual Ventures, pointed out that technological change does not happen overnight, and the longer it takes, the more time society has to adapt. Projections that self-driving cars will soon put up to a third of professional drivers out of work are implausible, he said, because with cars kept on the road for 12 years or more on average, it will take decades for self-driving cars to replace all those driven by humans. That will give human drivers plenty of time to find new jobs – and it doesn't matter that we don't yet know what those jobs will be.

Nathan Myhrvold (left) shares a joke with David Coughtrie

Network

AI can be deployed more quickly than self-driving cars, but its biggest successes to date include Google's creation of a neural network that taught itself to identify cat videos on YouTube, and another Google programme that learned to play the strategy game Go well enough to defeat the world's best player. While AI programmes will be able to do more than that in future, Dr Myhrvold dismissed warnings that they might threaten the very existence of humanity or pose more risk than nuclear weapons. These programmes are not, he insisted, the malevolent forces with godlike powers portrayed by those promoting the myth of the innovation menace.

Admitting that he cannot prove that adopting AI or other new technology will always turn out well, Dr Myhrvold said: "It always has, and to bet against it is to bet against human nature and say that in fact we are collectively not smart enough to move into other areas."

Prepare

But if we don't yet know what

> "Many more areas of human creativity have been harnessed in the last 10 years in this industry than in the previous 30"

these areas are, what do we teach young people today? How do we prepare them for jobs that have not yet been invented? asked David Coughtrie, chairman of the LCCI Commercial Education Trust, one of the long-term supporters of the annual Tacitus Lecture. In reply, Dr Myhrvold suggested that education does not prepare people very well for jobs that do already exist. "Most people graduate from university with a degree in something for which there is no commercial call at all," he said. Even computer science courses tend not to be closely related to what is being done in the real world.

Interface

So what careers should humans be focused on to ensure that they secure long-term employment? asked a student at the City of London Freemen's School. Dr Myhrvold responded by highlighting how the computer industry had evolved over recent years. "We've seen it go from being very nerd-focused to a situation where major and even minor companies have people who worry about user interface, who worry about design and who worry about having things that are catchy and new," he said.

"Many more areas of human creativity have been harnessed in the last ten years in this industry than in the previous 30, so there will be lots of opportunities in lots of areas – but sadly I can't tell you which ones."