



REPORT

11
11

- News
- Dress code
- Dual drivers

THE WEB WITHIN US

Inventor Ray Kurzweil tells Narelle Hooper why we have to catch up to the speed of technology

THINK ABOUT that smartphone in your hand. Imagine all that processing power and much more – only smaller and more functional. Tiny really. Inside your body perhaps. It's maybe enough to make you shift uncomfortably.

But there's much more in the realm of US entrepreneur and futurist Ray Kurzweil's take on the not-too-distant future that might excite or scare you with its possibilities. There's the bit where he predicts technology will become so innate that we'll back up our consciousness

as we do our hard drives; or the date sometime around 2029 when scientists will have completed reverse engineering the brain; and a point not too long after that when computer intelligence will exceed our own. Kurzweil says we'll have to have some deep conversations about what it really means to be human.

From Boston, before his visit for the Creative Innovation conference in Melbourne, Kurzweil says we need to get our heads around how profoundly technology will change the

The web within us continued

human condition. Think of the rapidly shrinking time frames for the spread of first the printed word, then the phone and now smartphones and social media. If it seems things are speeding up, it's because they are.

He says the nature of exponentially growing technologies will greatly increase human capability and that we should prepare for the next phase – transformative effects on the worlds of health and medicine, food production and energy.

For example, just as the decoding of the human genome was slow at first and rapid to conclude, the same will apply for other fields. “We have the software of life,” he explains. “We are making exponential progress on how that software works – the basis of health, disease and ageing.” Kurzweil also says the day when solar power will be less expensive than coal and oil is only about five years away; he believes that in two decades, we will have plenty for our needs.

Kurzweil has used his methodologies to plot future developments for about 30 years. Even so, he is still surprised at how quickly technology builds on previous developments.

“We have an intuition about the future and it's hard-wired in our brain. [But] it's linear. We expect things to continue much at the current pace. People do not think in an exponential way but technology progresses at an exponential rate. “Those [linear expectations of] the future work quite well for avoiding animals or hunting but they are not appropriate for dealing with and anticipating information technology.”

Kurzweil, the son of Jewish émigrés, began building computers in his teens. There's a grainy YouTube video of him as a student on the 1960s US game show *I've Got a Secret* (he played piano music written by a computer he developed). He studied at MIT and became a prolific inventor and entrepreneur, developing optical character recognition technology, document scanners and music synthesisers.

His print-to-speech devices (you can hold one in your hand) opened new avenues of learning to the blind. This is what is most gratifying, he says. “That's what fuels an inventor. It's the translations from dry formulas on a blackboard to changes in people's lives.”

His books, including *The Age of the*

Spiritual Machine (1999) and *The Singularity is Near* (2005), and his predictions for the impact of the accelerating technology curve, have made for hot debate in the blogosphere.

Time Magazine rated Kurzweil 30th on its 100 most influential people list for 2011, just below Facebook co-founder Mark Zuckerberg. He says non-biological intelligence will combine the subtlety and pattern recognition of humans with the speed, memory and knowledge-sharing of machines.

Kurzweil and some backers founded Singularity University – part think tank, part uni of the future – in Silicon Valley. He says it aims to help our next generation of leaders come to grips with the impact of technology on business and society and help solve big global challenges. It covers biotech, nanotech, AI, robotics, health and medicine, entrepreneurship and ethics.

It's a view of a future where we will have the capacity to meet our needs. “We are running up against the limits of our natural resources only if you limit yourself to first industrial revolution technologies, like fossil fuels.”

Ray Kurzweil will speak at Creative Innovation 2011 in Melbourne Nov 16-18. Go to: creativeinnovationglobal.com.au



It's a viral thing. First Occupy Wall Street, then London, Sydney, Melbourne, Tokyo and more. Part protest at increasing wealth divides and part internet meme (“I am the 99%”), economist Joseph Stiglitz warns it's a movement that policymakers and the corporate world shouldn't ignore. Wall St got rich misallocating capital and socialising losses while privatising gain. “That's not capitalism ... it's a distorted economy,” he said in October.

CRAZY ABOUT YOU

HERE'S TO THE CRAZY ONES, THE MISFITS, THE REBELS, THE TROUBLEMAKERS, THE ROUND PEGS IN THE SQUARE HOLES, THE ONES WHO SEE THINGS DIFFERENTLY. THEY'RE NOT FOND OF RULES AND THEY HAVE NO RESPECT FOR THE STATUS QUO. YOU CAN QUOTE THEM, DISAGREE WITH THEM, GLORIFY OR VILIFY THEM. ABOUT THE ONLY THING YOU CAN'T DO IS IGNORE THEM, BECAUSE THEY CHANGE THINGS, THEY PUSH THE HUMAN RACE FORWARD.

EARLY APPLE AD, AS CRAFTED BY THE LATE STEVE JOBS, REFERENCED AT HIS OCTOBER MEMORIAL SERVICE.

See *Most Respected Companies 2011*, page 16