

Singularity – The Way Ahead
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In the natural world, a singularity is a place where the usual rules of physics collapse, where division by zero is the norm instead of illegal. In futurism, Vernor Vinge defined a singularity to be “The rise of super intelligent life, created through the improvement of human tools by the acceleration of technological progress reaching the point of infinity.” Within thirty years or so, scientists will reverse engineer the human brain by mapping the circuit diagram that specifies the connections between the billions of cells in our brain. The secrets of consciousness and its related manifestations such as intelligence, creativity and personality will reveal themselves, marking progress towards a singularity in which machines will surpass human intelligence. We will make machines that think like humans but much faster, deeper and more reliably. There will be huge ramifications on how we teach, whether or not we bother to educate our children, and what the relationship will be between humans and machines. If education is deemed worth preserving, will all lecturers be replaced by machines? If education is not deemed to be worth preserving will we simply live the lives of hedonists, leaving it to the machines to take care of industry, innovation and commerce?

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Dr Finkel received his PhD in Electrical Engineering from Monash University in 1981; then worked for two years as a neuroscience Research Fellow at the John Curtin School of Medical Research at the Australian National University in Canberra. In 1983 Alan founded U.S. company Axon Instruments, which rose to international pre-eminence as a supplier of electronic and robotic instruments and software for cellular neurosciences, genomics and pharmaceutical drug discovery. In 2000 Axon listed successfully on the Australian Stock Exchange and Alan continued to serve as CEO until Axon was acquired in 2004. Alan was a cofounder of the ASX-listed company Optiscan Imaging and served as a Director until 2002. Alan is a cofounder and the Chairman of Luna Media, the company that publishes Cosmos Magazine, a popular magazine of science in society, and G magazine, a lifestyle magazine for sustainable living. In his public interest capacity Alan is Chairman of the National Research Centre for the Prevention of Child Abuse, a governor of the Clunies Ross Foundation, Chairman of the Australian Course in Advanced Neuroscience, a board member and governor of the Florey Neuroscience Institutes and the Chancellor of Monash University.