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Multimedia resource, emphasizing book reviews, articles about Ray Kurzweil and Singularity, downloadable photo archives, access to print and radio interviews. The great inventor and futurist Ray Kurzweil is one of the most famous and controversial supporters of the role of machines in the future of mankind. In his latest, exciting foray into the future, he foresees an event called singularity in which technological change becomes so rapid and profound that our bodies and brains will merge with our machines. Singularity is close to depicting what life will be like after this event-man-machine civilization, where our experience is shifting from real reality to virtual reality and where our intelligence becomes non-biological and trillions of times more powerful than unaided human intelligence. In practical terms, this means that human ageing and pollution will be reversed, global hunger will be addressed, and our bodies and environment are transformed by nanotechnology to overcome the limitations of biology, including death. We will be able to create almost any physical product only from information, which will lead to a radical creation of wealth. In addition to laying out these fantastical changes, Kurzweil also examines their social and philosophical implications. With his radical but optimistic view of human development, Singularity is among course to be one of the most widely discussed and provocative books of 2005. Ray Kurzweil's 2005 non-fiction book Singularity Close: When People Transcend Biology AuthorRay KurzweilCountryUnited StatesLanguageEnglishPublisherPublication DateSeptionSnet 2005Pages652ISBN978-0-670-03384-3OCLC57201348 Dewey Decimal153.9LC Class-376 . K85Recilated Age of Spiritual Machines Follow How to Create Mind Singularity Is Close: When People Transcend Biology 2005 non-fiction books about artificial intelligence and the future of humanity by inventor and futurist Ray Kurzweil. The book is based on ideas presented in Kurzweil's previous books, The Age of Intelligent Machines (1990) and The Age of Spiritual Machines (1999). This time, however, Kurzweil covers the term Singularity, which was popularized by Vernor Winge in his 1993 essay Coming Technological Singularity. Kurzweil describes its Law of Accelerating Returns, which predicts the exponential growth of technologies such as computers, genetics, nanotechnology, robotics and artificial intelligence. Once Singularity has been achieved, Kurzweil says that machine intelligence will be infinitely more powerful than all human intelligence combined. He then predicts that intelligence will radiate outwards from the planet until it saturates the universe. Singularity is also the point at which intelligence machines and humans will merge. Content Kurzweil's growth characterizes the evolution of evolution all the time as progresses through six eras, each building one earlier. He says the four eras that have occurred so far are physics and chemistry, biology and DNA, brains and technology. Kurzweil predicts that Singularity will coincide with the next era, the fusion of human technology with human intelligence. After Singularity he says that the last era will happen, the universe wakes up. Kurzweil explains that evolutionary progress is exponential due to positive feedback: the results of one stage are used to create the next stage. The exponential growth is deceptive, almost flat at first, until it gets into what Kurzweil calls the knee in a curve, then rises almost vertically. In fact, Kurzweil believes that evolutionary progress is super-exponential, because more resources are involved in the winning process. Kurzweil cites the business of computer chips as an example of super-exponential growth. The overall budget for the entire industry increases over time, as the fruits of exponential growth make it an attractive investment. At the same time, the additional budget fuels more innovation, making the industry grow even faster, effectively an example of double exponential growth. Kurzweil says that evolutionary progress looks smooth, but in fact it is divided into paradigms, specific methods of problem solving. Each paradigm starts with slow growth, builds on rapid growth, and then aligns. As one levels of the paradigm, pressure builds to find or develop a new paradigm. So what looks like one smooth curve is really a series of smaller S curves. Kurzweil calls this exponential growth a law of acceleration of profitability, and he believes that this applies to many human-made technologies, such as computer memory, transistors, microprocessors, DNA sequencing, magnetic storage, number of Internet hosts, Internet traffic, device size reduction, as well as nanotechnology quotes and patents. Kurzweil cites two historical examples of exponential growth: the human genome project and the growth of the Internet. Kurzweil argues that the entire world economy is actually growing exponentially, although short-term booms and busts tend to obscure this trend. The Computing Power of Moore's Law Updated Moore's Law for 120 Years (based on Kurzweil's graph). The 7 most recent data points are all NVIDIA GPUs. The fundamental pillar of Kurzweil's argument is that to get to the singularity, computational ability is as narrow as other things such as algorithms and understanding of the human brain. Moore's Law predicts that the capacity of integrated circuits is growing exponentially, but not indefinitely. Kurzweil believes that increasing the bandwidth of integrated circuits is likely by 2020. He is confident that at this point a new paradigm will debut to continue the exponential growth predicted by his law of accelerating profitability. Kurzweil describes four computational paradigms that came up with integrated circuits: electromechanical, relay, vacuum tube, and transistors. It is not known which technologies will follow the integrated circuits to serve as the sixth paradigm, but Kurzweil believes that nanotubes are the most likely alternative among a number of possibilities: nanotubes and nanotube schemes, molecular calculations, self-immolation in nanotubes, biological systems emulating the circuitry of the assemblage, calculations with electrons, spintronics (calculations with the spine). Since Kurzweil believes that computing power will continue to grow exponentially long after the end of Moore's Law, it will eventually compete with the raw computing power of the human brain. Kurzweil examines several different estimates of how much computational capacity is in the brain and settles on 1,016 calculations per second and 1,013 bits of memory. He writes that \$1,000 will buy computer power equal to one brain by about 2020, while by 2045, with the advent of Singularity, he says the same amount of money will buy one billion times more energy than the entire human brain combined today. Kurzweil acknowledges that the exponential trend in increasing computing power will eventually hit the limit, but he calculates that the limit will be trillions of times higher than what is needed for Singularity. Brain Exponential Growth computing company Kurzweil notes that computing power alone will not create artificial intelligence. He argues that the best way to build machine intelligence is to first understand human intelligence. The first step is to image the brain to look inside it. Kurzweil argues that imaging technologies such as PET and MRI are growing exponentially in resolution, while he predicts that even more detailed information will be obtained during the 2020s, when it will be possible to scan the brain from within using nanobots. Once the physical structure and connection information is known, Kurzweil says researchers will have to produce functional models of subcellular components and synapses in general across brain regions. The human brain is a complex hierarchy of complex systems, but it does not represent a level of complexity that goes beyond what we are already able to handle. In addition to in engineering the brain to understand and emulate it, Kurzweil introduces the idea of loading a particular brain with each mental process intact to be instantly on a sufficiently powerful computational substrate. writes that general modeling requires 1016 calculations per second and 1013 bits of memory, but then explains the download requires additional details, perhaps more than 1019 cps cps 1018 bit. Kurzweil says the technology for this will be available by 2040. Instead of instant scanning and converting into a digital form, Kurzweil feels that people are more likely to experience gradual transformation because parts of their brains are supplemented with nerve implants, increasing their share of non-biological intelligence slowly over time. Kurzweil believes that there is no objective test that can definitively determine the presence of consciousness. Therefore, he said, non-biological intellects will claim that they have consciousness and a full range of emotional and spiritual experiences that people claim to have. He believed that such claims would generally be accepted. Kurzweil says revolutions in genetics, nanotechnology and robotics will usher in the beginning of singularity. Kurzweil feels with enough genetic technology that it should be possible to support the body indefinitely by reversing aging during the treatment of cancer, heart disease and other diseases. Much of this will be made possible by nanotechnology, the second revolution that entails a molecule by molecule-building tools that alone can restore physical peace. Finally, the revolution in robotics will indeed be the development of strong AI, defined as machines that have human intelligence or more. This development will be the most important in a century, comparable in importance to the development of biology itself. Kurzweil recognizes that every technology carries with it the risk of misuse or abuse, from viruses and nanobots to restless artificial intelligence machines. In his view, the only countermeasure was to invest in protective technologies, for example by providing new methods of genetics and treatment, monitoring dangerous pathogens and imposing limited moratoriums on certain technologies. As for artificial intelligence, Kurzweil believes that the best protection is to increase the values of freedom, tolerance and respect for knowledge and diversity in society, because non-biological intelligence will be embedded in our society and will reflect our values. The main article of Singularity: Technological Singularity Countdown to Kurzweil Singularity touches on the history of the Singularity concept, tracking it back to John von Neumann in the 1950s and J.J. Goode in the 1960s. He compares his singularity to mathematical or astrophysical singularity. While his ideas of singularity aren't really endless, he says it looks that way from any limited perspective. During the Singularity, Kurzweil predicts that human life will be irreversibly transformed and that humans will surpass the limitations of our biological bodies and brains. He's looking out for singularity to say that intelligence that will appear, will continue to represent the human being in addition, he believes that future machines will be human, even if they are not biological. Kurzweil argues that once non-biological intelligence prevails, the nature of human life will be radically altered: Kurzweil envisions nanobots that allow people to eat whatever they want, staying thin and necessary, provide habitable energy, fight infections or cancer, replace organs and enlarge their brains. Eventually people's bodies will contain so much enlargement they will be able to change their physical manifestations in their opinion. Kurzweil says that the law of acceleration returns suggests that once civilization develops primitive mechanical technologies, it is only a few centuries before they reach everything described in the book, after which it will begin to expand outwards, saturating the universe with intelligence. Since humans have found no evidence of other civilizations, Kurzweil believes that humans are probably alone in the universe. Thus, Kurzweil comes to the conclusion that it is the fate of mankind to make saturation, attracting all matter and energy in the process. As for individual identity during these radical changes, Kurzweil suggests that people think of themselves as a developing model rather than a specific collection of molecules. Kurzweil says evolution is moving toward greater complexity, greater elegance, more knowledge, more intelligence, more beauty, more creativity, and more subtle qualities such as love. He says these attributes, within, are commonly used to describe God. This means, he continues, that evolution is moving toward the concept of God and that the transition from biological roots is actually a spiritual undertaking. The main article, Predictions: Predictions made by Ray Kurzweil Kurzweil, does not contain actual written chronologies of the past and the future, as he did in The Age of Intelligent Machines and The Age of Spiritual Machines, but he still makes many specific predictions. Kurzweil writes that by 2010, the supercomputer will have the computational ability to emulate human intelligence, and by about 2020 the same capacity will be available for a thousand dollars. After this chapter, he expects that scanning the human brain will contribute to an effective model of human intelligence by the mid-2020s. The culmination of these two elements will be computers that can pass the Turing test by 2029. By the early 2030s, the volume of non-ciolacion calculations will exceed the ability of all living biological human intelligence. Finally, an exponential increase in computing power will lead to singularity. Kurzweil makes this date very clear: I have set the date of Singularity, representing a profound and destructive transformation of human potential - as 2045 Widespread criticism of the book is associated with an exponential rise in confusion. For example, in 1969 a man landed on the moon. Extrapolate exponential growth from there would be expected huge lunar bases and manned missions to distant planets. Instead, intelligence stalled or even regressed after that. Paul Davies writes that the key to exponential growth is that it never lasts often due to a lack of resources. On the other hand, it has been shown that global acceleration until recently followed a hyperbolic rather than exponential model. Theodore Modis says that nothing in nature should be purely exponential and suggests that the logistics function is better suited to the real growth process. The logistical function looks exponential at first, but then smoothed and aligned completely. For example, the global population and oil production in the United States appear to be growing exponentially, but both have aligned because they were logistical. Kurzweil says that the knee is in a curve this time when the exponential trend is going to explode, while Modis argues that if the logistics process is when you hit the knee the amount you measure is only going to increase 100 times more. While some critics complain that the law of expediting returns is not a law of nature, others question the religious motives or consequences of Kurzweil's singularity. The build-up to Singularity is compared to the Judeo-Christian scenarios of the end of time. Beam calls this vision of Buck Rogers a hypothetical Christian delight. John Gray says that Singularity echoes apocalyptic myths in which history is about to be interrupted by an event, transforming the world. The radical nature of Kurzweil's predictions is often discussed. Anthony Doerr says that before you dismiss it as a techno-zeal believe that every day the line between being a man and something that isn't exactly a human blur is a little more. He lists the technologies of the day, in 2006, as computers that land supersonic airplanes or fertility treatments in vitro and asks whether brain implants that access the internet or robots in our blood are really that incredible. As for the reverse engineering of the brain, neuroscientist David Linden writes that Kurzweil combines the collection of biological data with biological understanding. He believes that data collection can grow exponentially, but understanding is only growing linearly. For example, the speed and cost of genome sequencing is also improving exponentially, but our understanding of genetics is growing very slowly. As for nanobots, Linden believes that the spaces available in the brain for navigation are simply too small. He admits that one day we'll fully know but not on Kurzweil's schedule. Reviews Paul Davies wrote in Nature that singularity nearby is a breathable romp through through reaches technological possibilities by warning that exhilarating speculation is a lot of fun to read, but must be taken with a huge dose of salt. Anthony Doerr of The Boston Globe wrote: Kurzweil's book is surprisingly complex, clever and convincing. He writes pure methodical sentences, includes humorous dialogues with characters in the future and past, and uses graphics that are almost always available. While his colleague Alex Beam notes that singularists were met with grinning scepticism by Janet Maslin in The New York Times, wrote: Singularity is close in scale and bravado, but says that most of his thinking is usually pie in the sky. It notes that it is more focused on optimistic results than on risks. In 2006, Barry Ptolemy and his production company Ptolemaic Productions licensed the rights to The Singularity Is Near from Kurzweil. Inspired by the book, Ptolemy directed and produced the film Transcendent Man, which went on to draw more attention to the book. Kurzweil also directed his own film adaptation, produced in partnership with Terasem; Singularity is Near mixes documentary interviews with a sci-fi story that includes transforming ramona's robotic avatar into artificial general intelligence. The film was screened at the World Film Festival, the Woodstock Film Festival, the Warsaw International Film Festival, the San Antonio Film Festival in 2010 and the San Francisco Indie Film Festival in 2011, and the film was released on July 20, 2012. It is available on DVD or digital download. The 2014 film Lucy is roughly based on Kurzweil's predictions about what 2045 will look like, including the immortality of a human 奇点临近 奇点逼近 it's nabji French: L'humanite 2.0 Hungarian: Szingularita's k'sz'b'n Italian: La singlarita and vicina Korean: 특이점이 온다 Spanish: La Singularidad est cerca German: Menschheit 2.0. Die Singularity!t naht Polish: Nadchodzi Osobliwo' Hebrew: Kineret 2012 מתקרבת מתקרבת 2012 תסייגורליות תסייגורליות See also Limits Computational Paradigm Shift Imitation Of Reality Singularity Technological Singularity Transcendental Man Transcendental Human Transcendental Remarks - Vinge 2005. sfn error: no goal: CITEREFVinge2005 (help) - Kurzweil 2005, p. 15. Kurzweil 2005, page 10. Kurzweil 2005, page 40-41. Kurzweil 2005, page 43-44. Kurzweil 2005, page 67. Kurzweil 2005, 56-84. Kurzweil 2005, page 12. Kurzweil 2005, page 97. b Kurzweil 2006, page 67. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, page 112-113. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 126. sfn error: no goal: CITEREFKurzweil2006 (help) b Kurzweil 2006, p. 136. error sfn: no goal: (help) - Kurzweil 2006, page 134. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, page 160-161. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 163-167. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, page 167-181. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 145. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, page 199-200. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, page 201. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 378. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 377. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 205. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, page 212-219. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, page 226-227. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 260. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 296. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, page 422-424. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2005, p. 23. Kurzweil 2006, page 7. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 30. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 299. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2005, page 331-341. Kurzweil 2006, page 301-310. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 344. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 365. sfn error: no goal: CITEREFKurzweil2006 (help) b Kurzweil 2006, p. 389. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2006, p. 25. sfn error: no goal: CITEREFKurzweil2006 (help) - Kurzweil 2005, p. 25. Kurzweil 2005, page 200. Kurzweil 2006, page 125. sfn error: no goal: CITEREFKurzweil2006 (help) b with Davies, Paul (2006-03-23). When computers take over (PDF). Nature. 440: 421-422. doi:10.1038/440421a. Received 2013-02-15. Andrey Korotayev (2018). The singularity of the 21st century and its big implications for history: re-analysis. In the magazine Big Story, 2 (3): 71–118. doi:10.22339/bh.v2i3.2320. Modis, Theodore (2006). The myth of singularity. Technological forecasting and social change. 73.2. Archive from the original 2012-10-30. Received 2013-02-13. b beam, Alex (2005-02-24). It's a sense of singularity. Boston Globe. Received 2013-02-15. Grey, John (2011-11-24). On the way to immortality. New York Review of Books. Received 2013-03-19. a b Doerr, Anthony (2005-10-02). What path will technology take us?. Boston Globe. Received Linden, David. Singularity is far away: the look of the unruly. Boing Boing Received 2013-02-19. Maslin, Janet (2005-10-03). Will the future be a trillion times better?. The New York Times. Received 2013-02-19. Release dates for Singularity are close by. Imdb. Received 2013-02-14. Singularity is close. film. Singularity next to the movie trailer. Lucy's film: the false promise of transhumanism to become God is the beginning and the end. Beginning and end. Links Kurzweil, Ray (2005). Singularity is close. New York: Viking Books. ISBN 978-0-670-03384-3. PDF Winge, Werner (1993). Vernor Vinge on singularity. San Diego State University. Received on April 11, 2013. External links Singularity.com, the official site for vice magazine book interviews with Ray Kurzweil - Link down, 5/11/15 Documentary-Singularity by Ray Kurzweil on YouTube Wall Street Journal review Glenn Harlan Reynolds brain chips and other dreams of cyber evangelicals John Horgan Singularity next to an IMDb IEEE Spectrum Special Report on The Singularity of Aubrey de Grey: Roadmap to End The Ageing of Ray Kurzweil: Nearest Singularity - Big Think YouTube Get singularity is nearer. singularity is near pdf. singularity is near movie. singularity is near book. singularity is near summary. singularity is near documentary. singularity is near when humans transcend biology. singularity is near goodreads

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