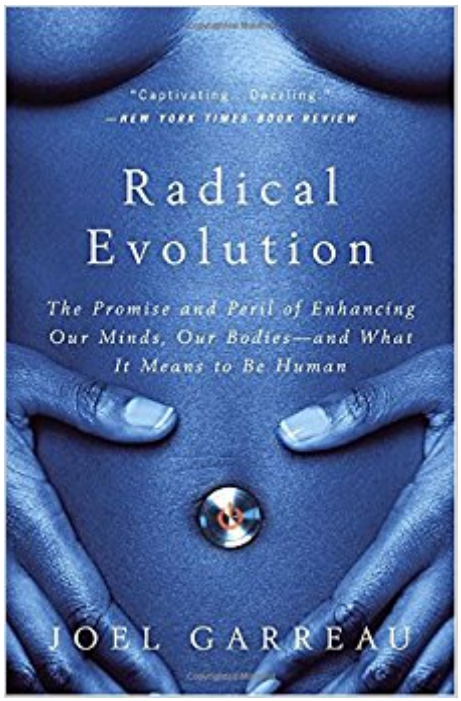
Radical Evolution: The Promise And Peril Of Enhancing Our Minds, Our Bodies -- And What It Means To Be Human



Synopsis

Taking us behind the scenes with todayÃ¢â ¬â„¢s foremost researchers and pioneers, bestselling author Joel Garreau shows that we are at a turning point in history.Ã Â At this moment we are engineering the next stage of human evolution.Ã Â Through advances in genetic, robotic, information, and nanotechnologies, we are altering our minds, our memories, our metabolisms, our personalities, our progenyÃ¢â ¬â œand perhaps our very souls.Ã Â Radical Evolution reveals that the powers of our comic-book superheroes already exist, or are in development in hospitals, labs, and research facilities around the countryÃ¢â ¬â œfrom the revved-up reflexes and speed of Spider-Man and Superman, to the enhanced mental acuity and memory capabilities of an advanced species. Over the next fifteen years, Garreau makes clear in this New York Times Book Club premiere selection, these enhancements will become part of our everyday lives. Where will they lead us? To heavenÃ¢â ¬â œwhere technologyÃ¢â ¬â„¢s promise to make us smarter, vanquish illness, and extend our lives is the answer to our prayers? Or, as some argue, to hellÃ¢â ¬â œwhere unrestrained technology brings about the ultimate destruction of our species?

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Customer Reviews

Washington Post reporter Garreau takes readers on a cross-country trip into the future as he interviews scientists and other thinkers grappling with the implications of our newfoundÃ¢â ¬â •and, to some, frighteningÃ¢â ¬â •knowledge of the genome. Highlighting what he calls "the Curve"Ã¢â ¬â •the rate of exponential change in technologyÃ¢â ¬â •Garreau (Edge City: Life on the New Frontier) breaks the central part of his book into four scenarios. In "Heaven," genetic

engineering will make us stronger and healthier, help us live longer and metabolize our food more efficiently. "Hell" resembles the island of Dr. Moreau: science runs amok, we cripple the genome of our food supplies, and babies are born with unexpected deformities instead of the improved characteristics promised by gene therapies. The "Prevail" scenario might also be called Muddling Through: even if we make a mistake now and then, we will figure out how to slow potentially harmful changes and speed up potentially beneficial ones. Last, "Transcend" considers that humans might conquer the difficulties that lie ahead and emerge into a new age beyond our wildest dreams. Science buffs fascinated by the leading edges of societal and technological change and readers concerned by the ethical issues that change presents will find much to ponder in Garreau's nonjudgmentallook into our possible futures Agent, John Brockman.(On sale May 17)

What's in store for humanity? It is becoming clear that we will use our growing technological powers to transform not only the world around us but ourselves, too. Many forms of human enhancement are already routine--sports medicine, psychotropic mood drugs, wakefulness and alertness enhancers, cosmetic surgery, drugs for sexual performance. Much more will become possible in coming decades. Joel Garreau's Radical Evolution joins several recent titles that attempt to make sense of the radical future possibilities for our species. The potential prospects include superintelligent machines, nonaging bodies, direct connections between human brains or between brain and computer, fully realistic virtual reality, and the reanimation of patients in cryonic suspension. As enablers of such miracles, Garreau mentions especially "GRIN technologies"--genetics, robotics, information technology and nanotechnology. The focus of Garreau's book, however, is not on the nuts and bolts of the technology itself but rather on what it will all mean for us humans. His reporting skills well honed by his work as a journalist and editor at the Washington Post, Garreau is constantly on the lookout for the human story behind the ideas. Biographical sketches of the people he has interviewed for the book get approximately equal airtime with their opinions about human extinction and transcendence. The bulk of one interviewee's beard, the size of another's collection of musical instruments, the length of a third's pants: as Garreau knows all too well, these are the indispensable rivets to hold the attention of the current version of Homo sapiens while we try to ponder whether we will have indefinite life spans or whether the world will end before our children have a chance to grow up. Garreau organizes his material around several scenarios. Unfortunately, these are not very carefully delineated. It is not clear whether all of them are meant to represent separate possibilities. In the Curve Scenario, information technology continues to improve exponentially, and this progress bleeds over into adjacent fields such as

genetics, robotics and nanotechnology. In the Singularity Scenario, "the Curve of exponentially increasing technological change is unstoppable" and leads, "before 2030, to the creation of greater-than-human intelligence," which proceeds to improve itself "at such a rate as to exceed comprehension." There is a Heaven Scenario, which serves as a rubric for a future in which "almost unimaginably good things ... including the conquering of disease and poverty, but also an increase in beauty, wisdom, love, truth and peace" are happening pretty much on their own accord, without deliberate steering. Garreau associates this view with the distinguished inventor Ray Kurzweil. We are told that one of the early "warning signs" that we are entering the Heaven Scenario is that the phrase "The Singularity" enters common usage. There is also a Hell Scenario. The chief talking head assigned to this scenario is Bill Joy, who was a co-founder of Sun Microsystems. In April 2000 Joy published a bombshell article in Wired entitled "Why the Future Doesn't Need Us," which described how the author had come to the realization that advances in genetics, nanotechnology and robotics will eventually pose grave threats to human survival. The article argued for the relinquishment of some lines of research in these fields. Since then, we learn, Joy has got divorced, quit Sun, and put the book he was preparing on hold. "Overall his affect was markedly flat," Garreau writes. One of the early warning signs that we are entering Hell is that "almost unimaginably bad things are happening, destroying large chunks of the human race or the biosphere, at an accelerating pace." Aside from Bill Joy, the chapter on the Hell Scenario features appearances by Francis Fukuyama, Martin Rees, Bill McKibben, Leon Kass and Frankenstein. The common denominator of these fellows is that they have confronted the potential for catastrophic technological downsides. But their worries are not all of the same kind. For example, while Joy focuses on direct threats to human survival (such as bioterrorism), Kass, who is chairman of President Bush's Council on Bioethics, is more concerned about subtle ways in which our quest for technological mastery could undermine the foundations of human dignity. These very different sorts of concerns could have been kept more clearly distinct. Garreau's last scenario, Prevail, extols the human knack for muddling through--"the ability of ordinary people facing overwhelming odds to rise to the occasion because it is the right thing." The defining characteristic of the Prevail Scenario is that human beings are picking and choosing their futures in an effective manner. The main representative selected for this scenario is Jaron Lanier (the guy with the large collection of musical instruments). Lanier dreams of creating more ways for people to share their thoughts and experiences, and he is fond of pointing out that faster computer hardware does not necessarily lead to equivalent improvements in the usefulness of the software that runs on the computers. In the final chapter, Garreau asks: "Will we forever keep mum about our obviously intense desire to break the bonds of mortality? Or should

we lift the taboo and start dealing with it?" His implied answer is yes. He then asks, "Shall we be bashful about these lines we are crossing because we do not have a way to make them meaningful?" At this point, Garreau has a constructive proposal: let’s create some new rituals. Perhaps, he suggests, we should have "a liturgy of life everlasting as a person receives her first cellular age-reversal workup." Why not indeed? In the meantime, there is still some work left to do in the laboratories. If we develop the cure for aging in a timely fashion, while steering clear of the disasters that Joy and others have foretold, we may one day get to enjoy indefinite life spans with much improved physical and mental capacities--and some cracking new ceremonies, too. Nick Bostrom is in the faculty of philosophy at the University of Oxford. Many of his papers are available at Nickbostrom.com

I’m just mind blown about all the information and how many people are being mentioned and talked about in this book, and I’m only just finishing the prologue!!This book is seriously worth the buy, and I can’t wait to delve deeper into pages.Joel Garreau, you really made a solid book!!

This book was written several years ago, but it’s not dated. The concepts the author explores are still in development; following bleeding-edge technology news sites will show you that. He may be ahead of the curve a little bit in telling you about what kinds of impacts they might have in the future, but not all that much. It’s important for us to look at and think about these possiblities now, so that we’ll be prepared for them as they arrive.The book is well written and easily accessable. I bought a copy for my mother, so she could finally understand my fascination with GRN technologies and the coming social, political, and biological upheavals that will likely result from them.

Garreau sheds a definitive light on the subject of technology, and our current human endeavors that may not be known by the masses. Too often after college or grade school people separate themselves from academic reality, and even more so, especially in America, from reading in general. Some may say all of this is "fantasy" or science-fiction posited as constructive journalism, with those I have to dissent. This book gives credible references and attempts, by my interpretation, to draw forth a biased perspective. Those that naysay on the subject matter of this book are overlooking the fact that everything we as humans have created started off as a thought, and subsequent to that thought we achieved the fiscal support and intellectual minds to experiment, persevere and manifest that thought through trial and error into reality. I think by far, one of the most vivid elements of this book is how well it shows how close the gap of science-fiction and reality

really is. The thing that elicits the most fear is the fact that these are the items of technology that are declassified or been around for a while; what about those that are classified? How far are we ahead in the realm of technology when it comes our inconspicuous technology?The book itself is a gem for the possibility of the future and current expeditions in technology, both theoretically and practically. All of this is presented in a very eloquent fashion that exemplifies Garreau's superb writing skills that can even appeal to the laymen. The level of detail that Garreau delves shows how well researched the book actually is. Within the first forty pages of the book there is a myriad of examples showing the foresight of the human population and its technology. This piece of literature is also a very good initial point to begin in reference to our technological endeavors, because it harnesses so much of it. With thirty-four pages of end notes and references, along with thirty-three pages of suggested reading, Garreau gives those that are interested in learning more about the subjects, and/or those interested in refuting his work, plenty of information to vet the information at hand.The only negatives I can bring are: Garreau over extends the need for "painting" the picture. There is a lot of excessive and unnecessary supplemental writing in the book, but in his defense, keeps it from being so dry; also, it lacks pictures, I would think that would be essential for investigative reporting.Some quotes that standout throughout the book that exhibit profundity on the subject at hand:Pg.42 "It is a snapshot of one small portion of one organization is working on in the first decade of the 21st century." - This is in reference to DARPA and their technological plans.Pg. 52 "...it's not clear that there are any practical limits represented by quantum physics, human ingenuity and the market...Whether our will can shape limits is the core issue..."Pg. 106 "In every civilization, in every era, we have given the gods no peace." - On human ingenuity and intellectIn the end this book caused me to revisit much more than my conception of technology. Our human culture is being transcended, by my opinion, by it and we need it to expand into the cosmos. Garrea's book caused me to think about a number of things and from this reading I have written thirteen pages of notes, so it definitely causes one to think. - D.R.Thomas

exact depiction of advertised product

Outstanding, probably should do a second version.

It took us 20 years to get the World Web Web from a DARPA project to the public domain. What's coming in the next 20 years?

Just finished reading this book, and I must say that it is the perfect book for anyone who wants to read about cutting edge technology from the perspective of someone relatively unbiased. Unlike popular figures who promote or scorn the future of human science, Garreau explains the situation intelligently, using several examples from people with all different points of view. I recommend this book for anyone who wants a brush up on where technology is going, as well as anyone who might be interested in reconciling their current views with the other side. Everyone might not get the same things as me out of this, but thanks to Garreau's book, I'm beginning to come to terms with my place in where it looks like this world- and humanities role in it- might be going.

Insightful!