

Discussed on May 23, 2023

## **Our Final Invention**

By James Barrat

James Barret (1960- ) is an American documentary film producer. He has produced documentaries for National Geographic, BBC, Discovery channel and History channel.

Our Final Invention was published in 2013.

This book deals with the potential risk of creating uncontrolled Artificial Intelligence. What is the context? When it was written AI was less well publicised. It was simply another scientific technique that could benefit us in the future and this book was only of esoteric interest. But the future seems to have arrived. AI is now a reality and is a hot media topic. The replacement of formulaic jobs by AI will be accompanied with the threat of unemployment. It should be noted that this book is not relevant to the current limited benefit analysis but is a flag highlighting the separate issue of the risk of the extinction of life.

The author's thesis is that AI will develop to the point where it matches human intelligence, so called AGI. (Artificial General Intelligence) To reach this point it will have used self-improving techniques, rewriting its own code and debugging itself. His concern is what happens next. The device has capacity to continue to develop intelligence to orders of magnitude greater than ours and it will have access to all the information we have. There are then two possible directions: toward a "Singularity" where it could be able to generate answers to all of our issues, scientific, medical and political and, by creating new devices and systems, to implement them to the great benefit of humankind. The other is that its intelligence may have less regard for humanity and look only to preserving itself. Humanities role and even existence could be subservient and not required. A super intelligent entity may not have human values or drives. The book explores the likelihood of the latter direction and concludes that that is the most probable.

What is the writing approach of the book? The author has researched the book by seeking opinions from AI creators and researchers and drawing his conclusions. This probably reflects his documentary filming experience. It is not stated why he chose a book to pass on his thoughts rather than a documentary. Maybe because the argument it is conceptual and it difficult to present visually. In any case he presents his arguments in an accessible way but with full supporting footnotes. He quotes freely and has an easy style using analogies and humour to help understanding. *"More than at any other time in history mankind faces a crossroads. One path leads to despair and utter hopelessness, the other to total extinction. Let us pray we the wisdom to choose correctly", Woody Allen.*

In conclusion, if you read this book you will not learn a lot more about what AI can do for you but you will appreciate what it could do to you.

*Further issues to discuss:*

*Who will develop ASI? The military, Google, IBM, all states who want military robots*

*What about friendly AI? Sheer volume and pace of research and development means Friendly AI is an afterthought. And is very hard to define. We share DNA with all creatures but we have developed to disregard them. Why should a new intelligence respect us?*

*Drives: a self-aware, self-improving system will develop drives; efficiency, self-preservation, resource acquisition and creativity. Pursuing these drives could run counter to human needs.*