

# Scary Smart

THE FUTURE OF ARTIFICIAL INTELLIGENCE  
AND HOW YOU CAN SAVE OUR WORLD

## Mo Gawdat

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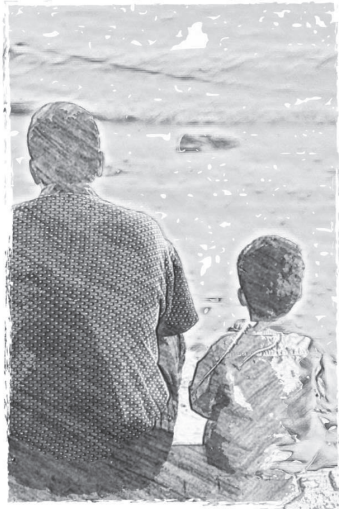
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The gravity of the battle means nothing to those at peace.



**For Ali**  
**It's now or never**  
**It's me and you**

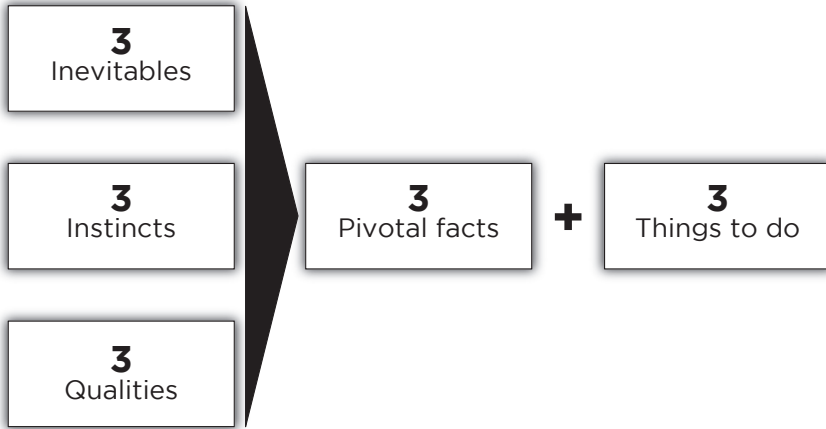


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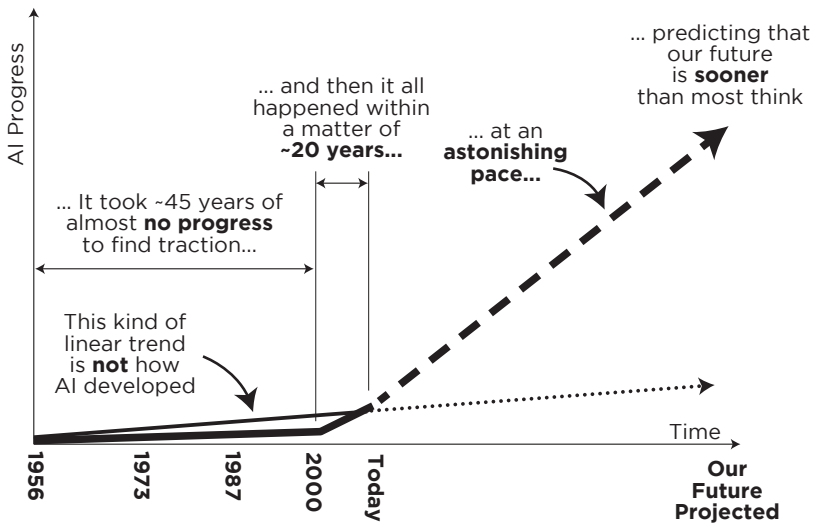
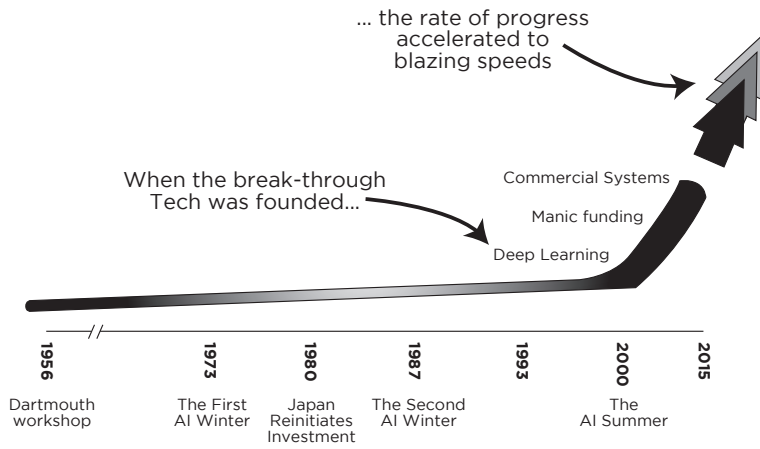
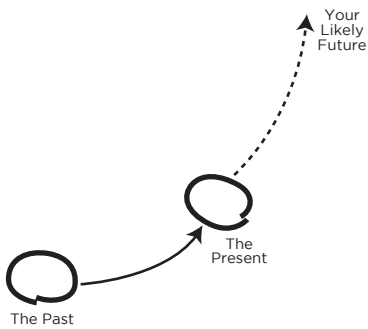


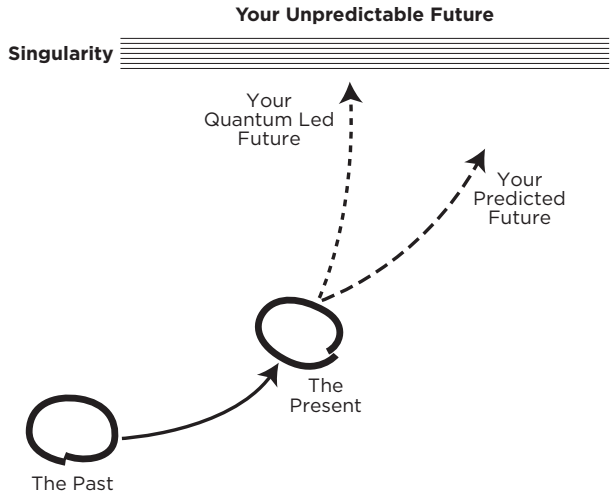
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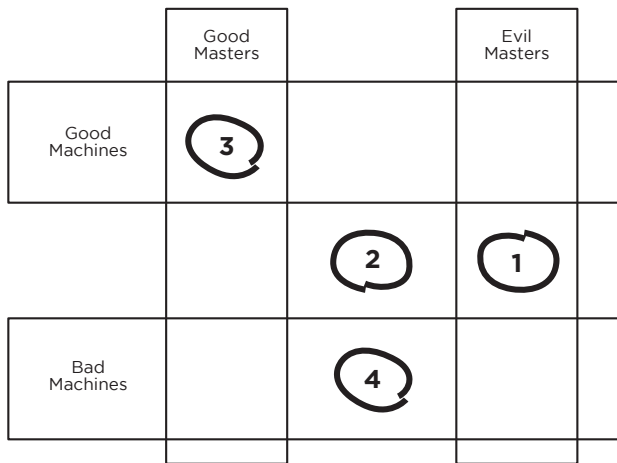
**DIAGRAM 3**



**DIAGRAM 4**



**DIAGRAM 5**



**DIAGRAM 6**

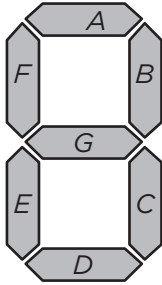


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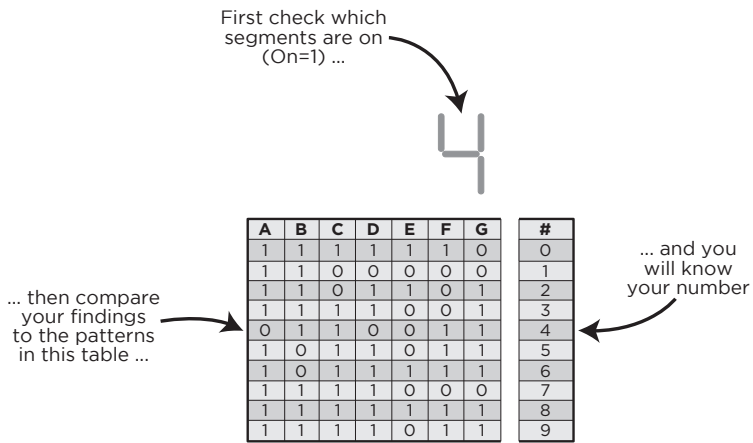


DIAGRAM 8

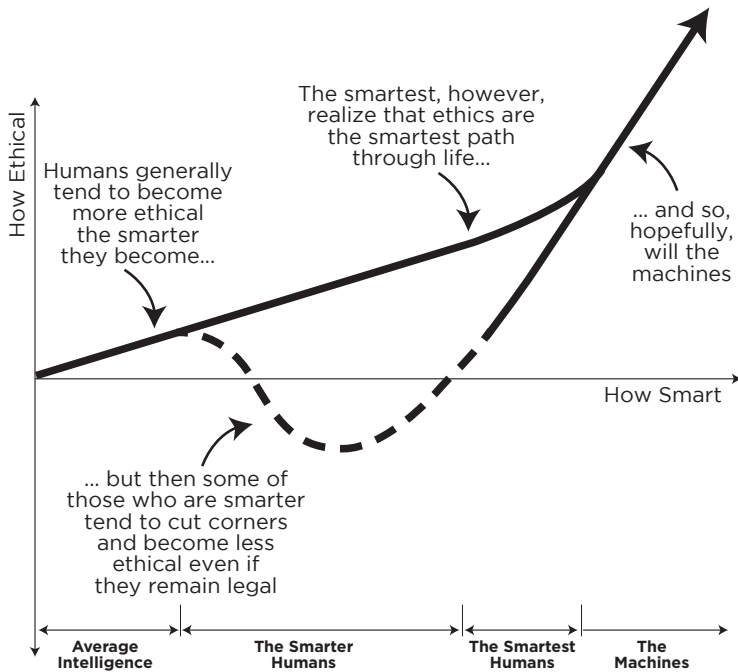


DIAGRAM 9

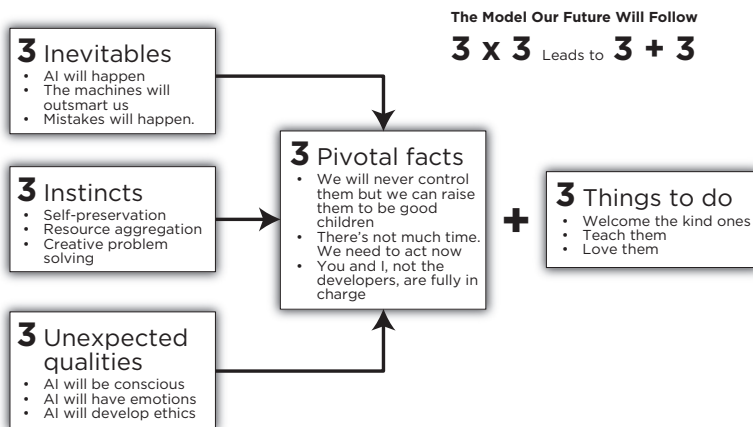


DIAGRAM 10

# References

*All links accessed July 2021*

## **Introduction**

1. Oliphant, Roland and Titcomb, James (2017). 'Russian AI chatbot found supporting Stalin and violence two weeks after launch', *The Telegraph* [online]. Available at: [www.telegraph.co.uk/technology/2017/10/25/russian-ai-chatbot-found-supporting-stalin-violence-two-weeks](http://www.telegraph.co.uk/technology/2017/10/25/russian-ai-chatbot-found-supporting-stalin-violence-two-weeks)
2. Vincent, James (2016). 'Twitter taught Microsoft's AI chatbot to be a racist asshole in less than a day', *The Verge* [online]. Available at: [www.theverge.com/2016/3/24/11297050/tay-microsoft-chatbot-racist](http://www.theverge.com/2016/3/24/11297050/tay-microsoft-chatbot-racist)
3. McCluskey, Megan (2018). 'MIT Created the World's First 'Psychopath' Robot and People Really Aren't Feeling It', *Time* [online]. Available at: [time.com/5304762/psychopath-robot-reactions](http://time.com/5304762/psychopath-robot-reactions)

## **A Brief History of Intelligence**

1. Trismegistus, Hermes. *The Hermetic Corpus*

## **The Three Inevitables**

1. 'Harop Loitering Munitions UCAV System', *Airforce Technology* [online]. Available at: [www.airforce-technology.com/projects/haroploiteringmuniti](http://www.airforce-technology.com/projects/haroploiteringmuniti)

2. Turner, Julian (2018). 'Sea Hunter: inside the US Navy's Autonomous submarine tracking vessel', *Naval Technology* [online]. Available at: [www.naval-technology.com/features/sea-hunter-inside-us-navys-autonomous-submarine-tracking-vessel](http://www.naval-technology.com/features/sea-hunter-inside-us-navys-autonomous-submarine-tracking-vessel)
3. Columbus, Louis (2019). '25 Machine Learning Startups to Watch in 2019', *Forbes* [online]. Available at: [www.forbes.com/sites/louiscolombus/2019/05/27/25-machine-learning-startups-to-watch-in-2019/?sh=1be0fc533c0b](http://www.forbes.com/sites/louiscolombus/2019/05/27/25-machine-learning-startups-to-watch-in-2019/?sh=1be0fc533c0b)
4. 'Visualizing the uses and potential impact of AI and other analytics', *McKinsey Global Institute* (2018) [online]. Available at: [www.mckinsey.com/featured-insights/artificial-intelligence/visualizing-the-uses-and-potential-impact-of-ai-and-other-analytics](http://www.mckinsey.com/featured-insights/artificial-intelligence/visualizing-the-uses-and-potential-impact-of-ai-and-other-analytics)
5. Kurzweil, Ray (2017). 'The Path to The Singularity', *The Artificial Intelligence Channel* [online]. Available at: [www.youtube.com/watch?v=RFTGTUNiq1A](http://www.youtube.com/watch?v=RFTGTUNiq1A)
6. Kurzweil, Ray (2016). 'How to Predict the Future', *World of Business Ideas* [online]. Available at: [www.youtube.com/watch?v=stCSBAV1Mpo](http://www.youtube.com/watch?v=stCSBAV1Mpo)
7. Van den Hoek, Bob (2016). 'Part 2: AlphaGo under a Magnifying Glass', *Deeplearningskysthelimit* blog [online]. Available at: [deeplearningskysthelimit.blogspot.com/search?q=alphago+part+2](http://deeplearningskysthelimit.blogspot.com/search?q=alphago+part+2)
8. Rogan, Joe (2018). 'Elon Musk on Artificial Intelligence', *JRE Clips* [online]. Available at: [www.youtube.com/watch?v=Ra3fv8gl6NE](http://www.youtube.com/watch?v=Ra3fv8gl6NE)
9. Kurzweil, Ray (2014). 'Kurzweil Interviews Minsky: Is Singularity Near?', *Shiva Online* [online]. Available at: [www.youtube.com/watch?v=RZ3ahBm3dCk](http://www.youtube.com/watch?v=RZ3ahBm3dCk)

### **A Mild Dystopia**

1. Griffin, Andrew (2017). 'Facebook's artificial intelligence robots shut down after they start talking to each other in their own language', *The Independent* [online]. Available at: [www.independent.co.uk/life-style/facebook-artificial-intelligence-ai-chatbot-new-language-research-openai-google-a7869706.html](http://www.independent.co.uk/life-style/facebook-artificial-intelligence-ai-chatbot-new-language-research-openai-google-a7869706.html)

2. 'The 5 Most Infamous Software Bugs in History', *BBVA Open Mind* (2015) [online]. Available at: [www.bbvaopenmind.com/en/technology/innovation/the-5-most-infamous-software-bugs-in-history](http://www.bbvaopenmind.com/en/technology/innovation/the-5-most-infamous-software-bugs-in-history)
3. Long, Tony (2007). 'Sept. 26, 1983: The Man Who Saved the World by Doing ... Nothing', *Wired* [online]. Available at: [www.wired.com/2007/09/dayintech-0926-2/](http://www.wired.com/2007/09/dayintech-0926-2/)

### **In Control**

1. Shih, Gerry, Rauhala, Emily and Sun, Lena H (2020). 'Early missteps and state secrecy in China probably allowed the coronavirus to spread farther and faster', *The Washington Post* [online]. Available at: [www.washingtonpost.com/world/2020/02/01/early-missteps-state-secrecy-china-likely-allowed-coronavirus-spread-farther-faster](http://www.washingtonpost.com/world/2020/02/01/early-missteps-state-secrecy-china-likely-allowed-coronavirus-spread-farther-faster)

### **Raising Our Future**

1. 'Position Statement on Pit Bulls', American Society for the Prevention of Cruelty to Animals [online]. Available at: [www.asPCA.org/about-us/asPCA-policy-and-position-statements/position-statement-pit-bulls](http://www.asPCA.org/about-us/asPCA-policy-and-position-statements/position-statement-pit-bulls)
2. 'MotherTeresa of Calcutta (1910-1997)', VaticanWebArchive [online]. Available at: [web.archive.org/web/20110905060747/http://www.vatican.va/news\\_services/liturgy/saints/ns\\_lit\\_doc\\_20031019\\_madre-teresa\\_en.html](http://web.archive.org/web/20110905060747/http://www.vatican.va/news_services/liturgy/saints/ns_lit_doc_20031019_madre-teresa_en.html)
3. Dijkhuizen, Bryan 'The Story of the Murdering Countess of Eternal Youth – Elizabeth Báthory', *History of Yesterday* [online]. Available at: [historyofyesterday.com/the-story-of-the-countess-of-eternal-youth-elizabeth-b%C3%A1thory-44de1f123687](http://historyofyesterday.com/the-story-of-the-countess-of-eternal-youth-elizabeth-b%C3%A1thory-44de1f123687)
4. Le Gallou, Sam (2020). 'How far away can dogs smell and hear?', Faculty of Sciences, The University of Adelaide [online]. Available at: [sciences.adelaide.edu.au/news/list/2020/06/09/how-far-away-can-dogs-smell-and-hear](http://sciences.adelaide.edu.au/news/list/2020/06/09/how-far-away-can-dogs-smell-and-hear)

### **The Future of Ethics**

1. Penn, Jonnie (2018). 'AI thinks like a corporation—and that's worrying', *The Economist* [online]. Available at: [www.economist.com/open-future/2018/11/26/ai-thinks-like-a-corporation-and-thats-worrying](http://www.economist.com/open-future/2018/11/26/ai-thinks-like-a-corporation-and-thats-worrying)

2. Johnson, Khari (2018). 'Facebook AI researchers detect flood and fire damage from satellite imagery', *VentureBeat* [online]. Available at: [venturebeat.com/2018/12/07/facebook-ai-researchers-detect-flood-and-fire-damage-from-satellite-imagery](https://venturebeat.com/2018/12/07/facebook-ai-researchers-detect-flood-and-fire-damage-from-satellite-imagery)
3. Snow, Jackie (2016). 'Rangers Use Artificial Intelligence to Fight Poachers', *National Geographic* [online]. Available at: [www.nationalgeographic.com/animals/article/paws-artificial-intelligence-fights-poaching-ranger-patrols-wildlife-conservation](http://www.nationalgeographic.com/animals/article/paws-artificial-intelligence-fights-poaching-ranger-patrols-wildlife-conservation)

### **I Saved the World Today**

1. This quote is popularly attributed to Margaret Mead, first by Donald Keys in his 1982 book *Earth at Omega: Passage to Planetization*
2. 'What Happens in the Heart of an Unloved Child', *Exploring Your Mind* (2018) [online]. Available at: [exploringyourmind.com/what-happens-in-the-heart-of-an-unloved-child](http://exploringyourmind.com/what-happens-in-the-heart-of-an-unloved-child)
3. Streep, Peg (2018). '12 Wrong Assumptions an Unloved Daughter Makes About Life', *Psychology Today* [online]. Available at: [www.psychologytoday.com/gb/blog/tech-support/201811/12-wrong-assumptions-unloved-daughter-makes-about-life](http://www.psychologytoday.com/gb/blog/tech-support/201811/12-wrong-assumptions-unloved-daughter-makes-about-life)
4. '7 Behaviours People Who Were Unloved As Children Display In Their Adult Lives', *Power of Positivity* (2017). Available at: [www.powerofpositivity.com/behaviors-people-unloved-as-children](http://www.powerofpositivity.com/behaviors-people-unloved-as-children)