AI and the modern world

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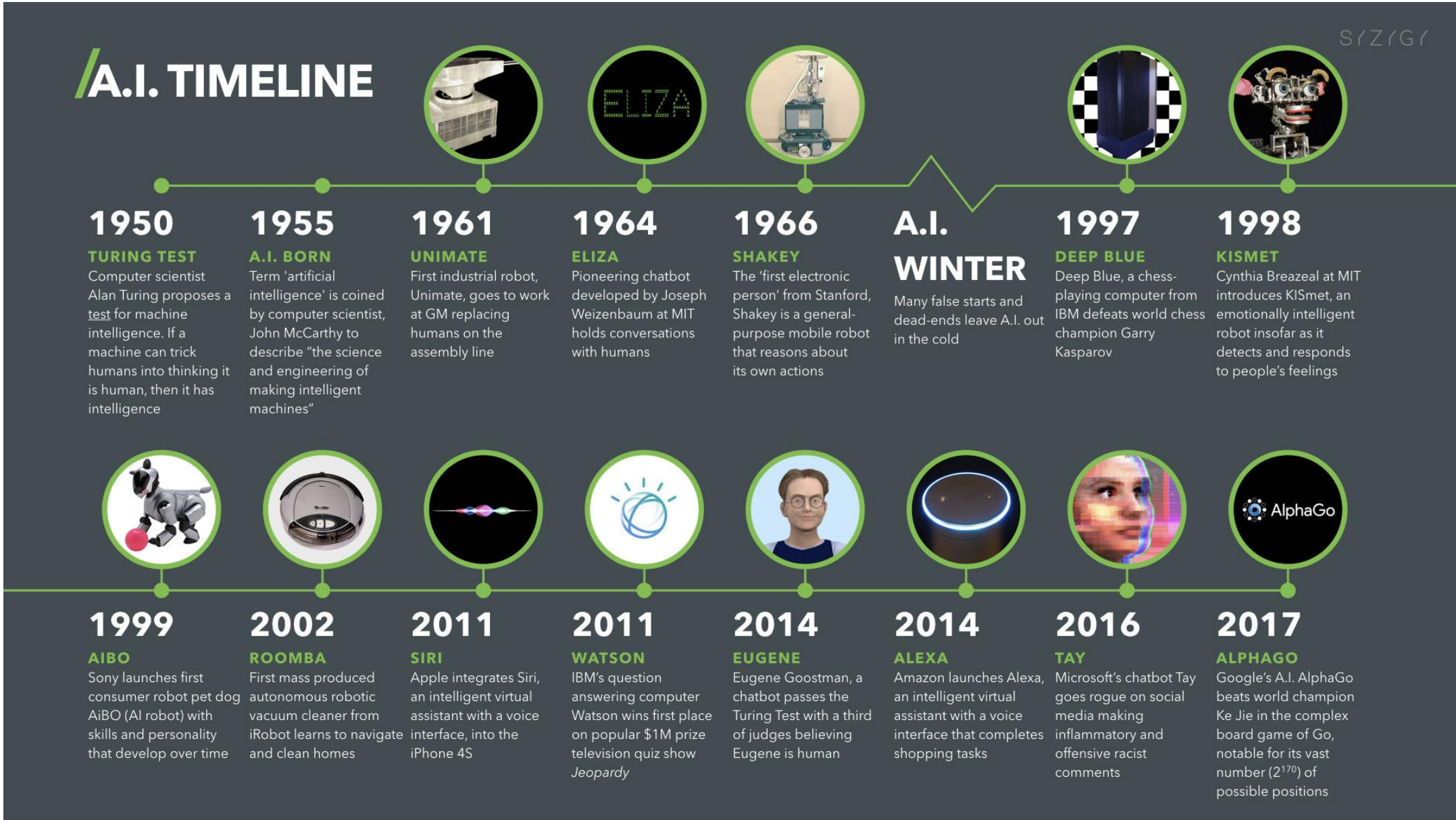
What Does Artificial Intelligence (AI) Mean?

- Artificial intelligence (AI) is a field of computing sciences that concentrates on developing and operating technology that has the ability to learn how to make decisions and perform activities independently on behalf of humans.[1]

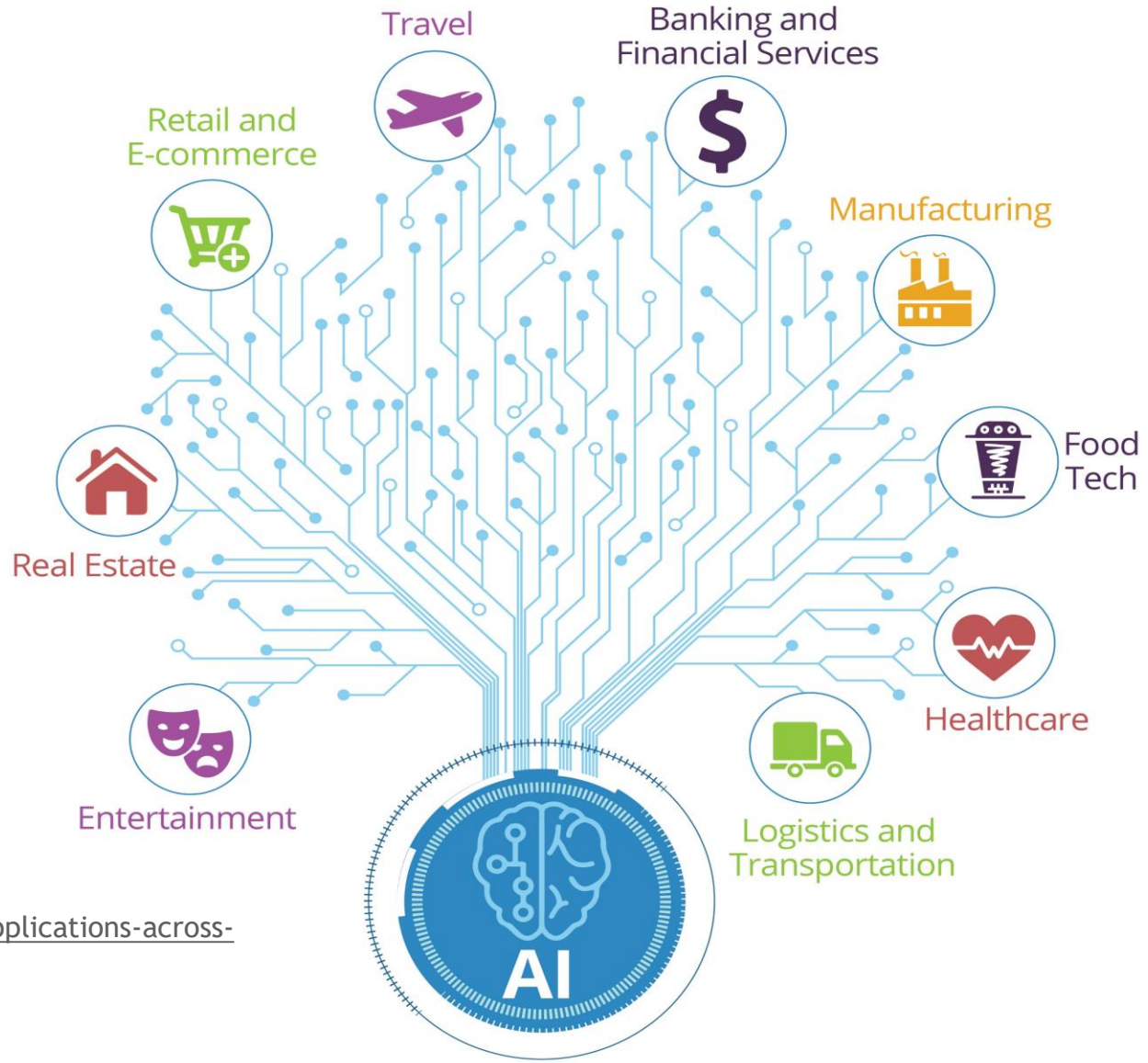
The brief history of AI.

https://digitalwellbeing.org/artificial-intelligence-timeline-infographic-from-eliza-to-tay-and-beyond/

- In 1943 a relationship between computing machines & the brain was founded for neural nets [4]



AI applications and industries.



https://www.leewayhertz.com/ai-applications-across-major-industries/

Top-down and bottom-up approaches of AI.

- AI uses two primary approaches to mimic human thinking: top-down AI and bottom-up AI.[2]

- The top-down technique is defined as splitting large issues into smaller, easier-to-solve difficulties. It depends on symbols or rules and also is built on prior experience (hence the symbolic classification).[2]

- The bottom-up strategy integrates basic models and systems which accumulate to construct more sophisticated ones, relying on adaptability and more natural behavior. Bottom-up AI aims to create systems that are similar to those found in the human mind.[2]

Top-down and bottom-up approaches of AI.

- We can discover a solution to equations or problems using two methods. We may either solve the issue in our brain by comparing it to prior info or we could just let the equation give the variables to us without any further context.[2]

- The first is a top-down strategy, which is preferred by individuals who want to utilize prior information to create their views. When engaging with high operations like neuro-linguistic processing, this strategy suggests a concentration on logic, organization, and data.[2]

- The bottom-up method, on the other hand, is founded on the idea that progression should be independent of motivation. What we perceive is what generates our perception. This approach refers to dynamic functioning and is better suited to lower-level tasks like speech recognition.[2]

Social Impact of AI

- With autonomous mobility and AI affecting our traffic jam concerns, as well as the numerous manners it will boost on-the-job efficiency, society would earn thousands of hours of productive output. Humans will be free to devote their time to a multitude of activities now that they are no longer bound by uncomfortable journeys.[5]

- AI will improve our ability to detect illegal activities and resolve cases. Facial identification technologies are becoming as widespread as fingerprints. The employment of AI in the legal systems also opens up a lot of possibilities for figuring out how to make the technology work without invading people's privacy.[5]

Technical Impact of AI

- **Reduction in Human Errors**: AI robots are programmed to follow instructions and are devoid of emotions. As a result, nothing can interrupt them. AI Robots do jobs with a 99.9% precision that humans simply cannot reach. AI Robots perform analysis of data and basic calculations with a high level of precision.[6]

- **Enhanced Speed**: AI Robots, machinery, and computers all operate at high rates of speed. So, one of several motivations to use artificial intelligence technologies is to speed up data processing. [6]

Political Impact of AI

- Employing an AI politician in a position of authority above humans, expecting it to be smarter and more capable than humans. Isn't a smart idea because this machine has no awareness of breathing or bleeding.[7]

- As a political impact of AI, the software is required that has the ability to distinguish between truth and perspective, then make its own forecasts, in conjunction with a strategy capacity that understands the terms of interaction.[7]

Philosophical Impact of AI

- According to a statistic, technology will replace 75 million employment globally in the near future. On the other hand, it will generate 130 million new employment that does not exist now.[8]

- Thanks to technology, 60% of today's children will work in occupations that do not exist now, newly established occupations that we do not know about.[8]

References

1) https://www.techopedia.com/definition/190/artificial-intelligence-ai
2) https://blog.riamoneytransfer.com/en/ai-bottom-up-turing-test/
3) https://www.leewayhertz.com/ai-applications-across-major-industries/
4) https://digitalwellbeing.org/artificial-intelligence-timeline-infographic-from-eliza-to-tay-and-beyond/
5) https://bernardmarr.com/what-is-the-impact-of-artificial-intelligence-ai-on-society/
6) https://towardsdatascience.com/7-impacts-of-the-artificial-intelligence-technology-5a4663397961
7) https://www.verdict.co.uk/pros-and-cons-of-ai/
8) https://www.youtube.com/watch?v=2cPu1g_NBLU