Artificial Intelligence and Big Data

in Health Care and Research

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Outline

1) AI is Everywhere, also in Health

2) Data, Health Data, Big Data

3) Data Science, Machine Learning and AI

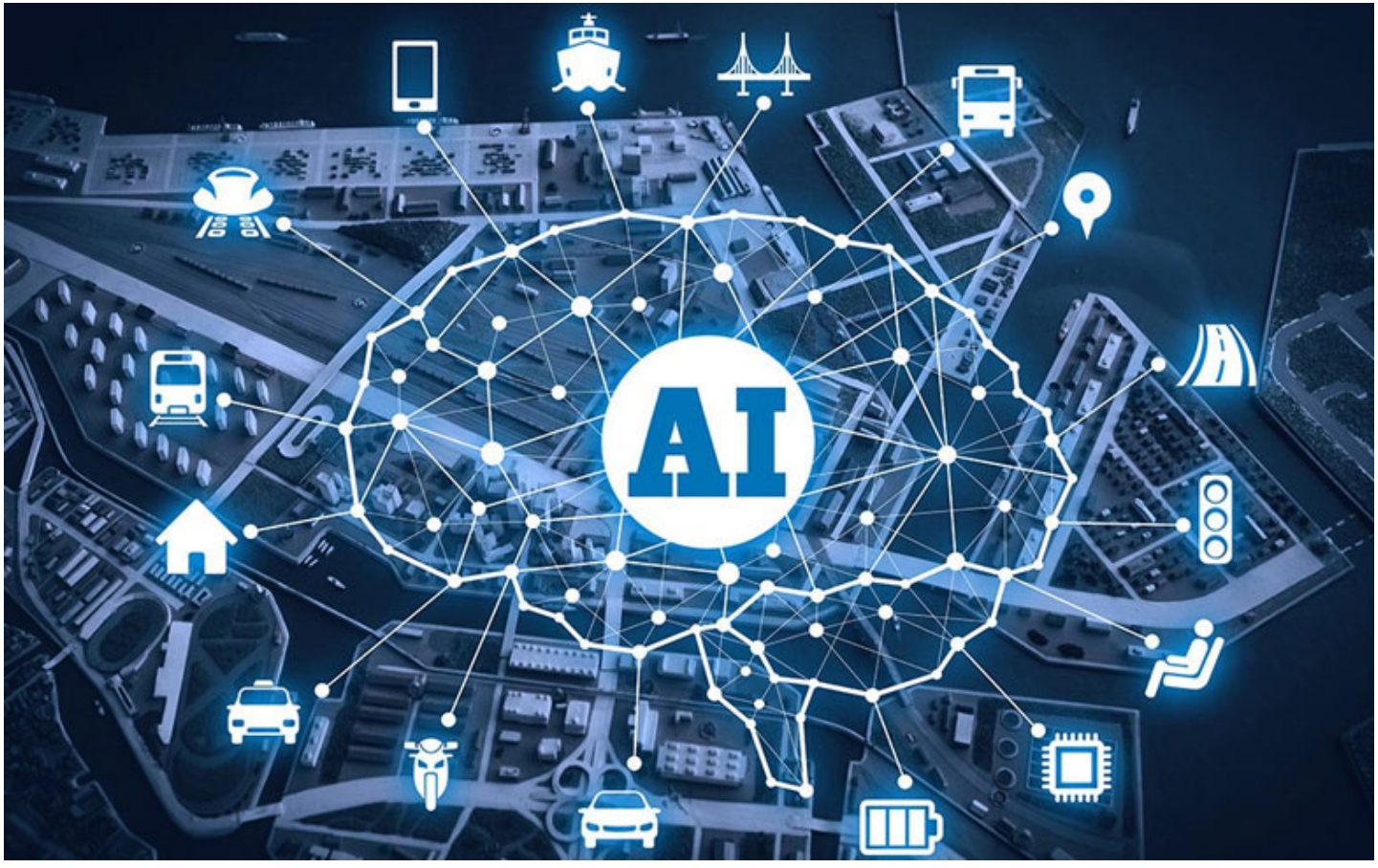
4) Success stories, Challenges and Limitations

5) Not to talk about Ethics

6) Summary

Artificial Intelligence Everywhere, also in Health

AI : Everyone talks about it



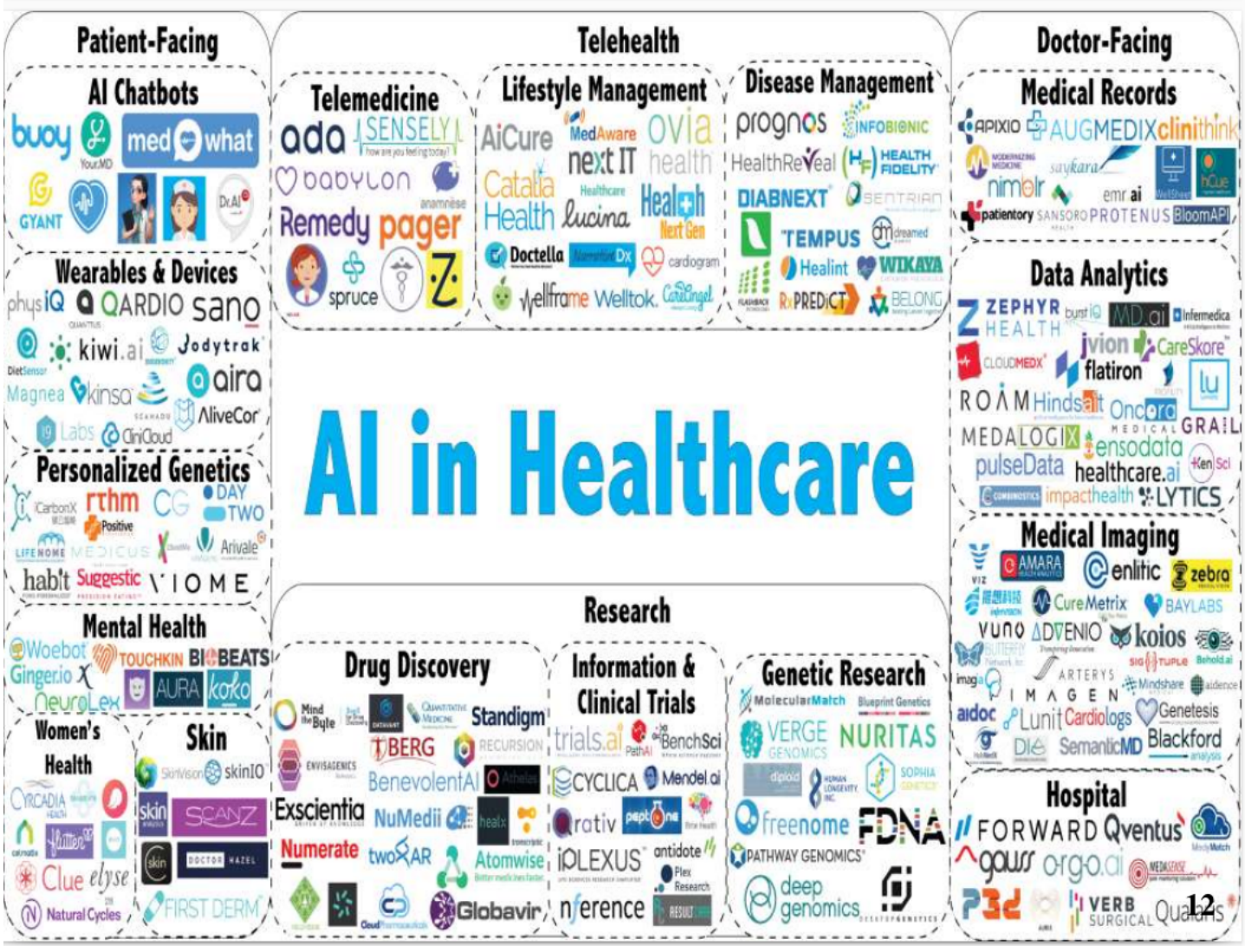
AI : Everyone talks about it

- AI is a broad term that refers to *any technology that enables a machine to perform tasks that would typically require human intelligence*, such as **learning**, **problem-solving**, and **decision-making**.
- AI is present in many different technologies and applications that we use every day, such as smartphones, social media, and personal assistants like Siri and Alexa.
- As a result, AI has become *an integral part of our daily lives*, and it is increasingly being used in a wide range of industries and applications.

Examples of AI in everyday life

- **Smartphone personal assistants**, Siri and Google Assistant.
- **Social media algorithms**, to recommend content and customize user experiences.
- **Virtual assistants**, Amazon's Alexa and Apple's HomePod.
- **Autonomous vehicles**, such as self-driving cars, which use AI to navigate roads and make driving decisions.
- **Fraud detection systems**, which use AI to analyze transactions and identify potential fraudulent activity.
- **Customer service chatbots**, which use natural language processing to provide answers to customer inquiries.
- **Healthcare systems**, which use AI to analyze medical images and assist with diagnosis and treatment planning.
- And many other such as: **Online education platforms**, **Video game AI** or **Recommender Systems**.

AI in Health care



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Data Science, Machine Learning and Artifical Intelligence

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Success stories, Challenges and Limitations

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References and Resources

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