

# Artificial Intelligence

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# What is AI?

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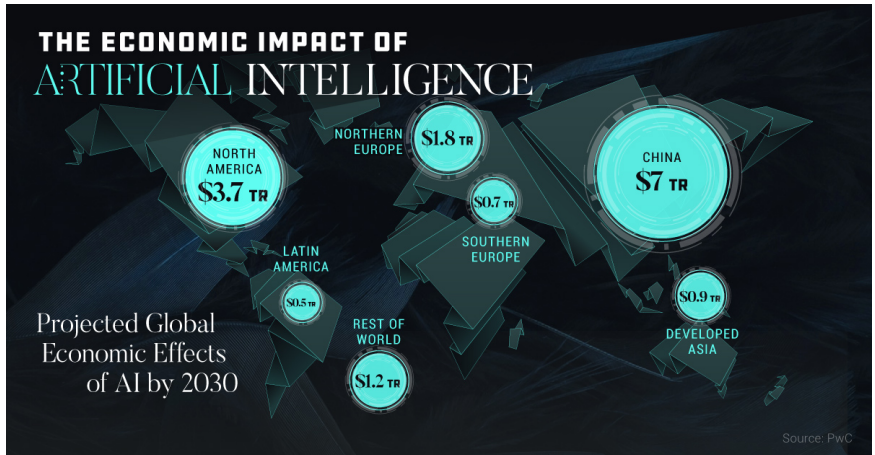
**“a branch of computer science that studies the properties of intelligence by synthesizing intelligence”**

# What is AI?

Our 2019 Prediction	Grade
New natural language processing companies raise \$100M in 12 months.	Yes
No autonomous driving company drives >15M miles in 2019.	Yes
Privacy-preserving ML adopted by a F2000 company other than GAFAM (Google, Apple, Facebook, Amazon, Microsoft).	Yes
Unis build <i>de novo</i> undergrad AI degrees.	Yes
Google has major quantum breakthrough and 5 new startups focused on quantum ML are formed.	Sort of
Governance of AI becomes key issue and one major AI company makes substantial governance model change.	No

<https://www.stateof.ai/>

# Why AI?



# Why AI?

EXECUTIVE ORDERS

## Executive Order on Maintaining American Leadership in Artificial Intelligence

INFRASTRUCTURE & TECHNOLOGY

Issued on: February 11, 2019



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**Tech-driven change a key priority for new EC president**



# Why AI?



Figure 2. Identifying Societal Drivers.



# Side Effects of AI

## Google's AI for mammograms doesn't account for racial differences

By [Amrita Khaldi](#) - January 9, 2020

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## Facial-Recognition Software Suffers From Racial Bias, U.S. Study Finds

Report amplifies concerns about the rollout of algorithms that analyze images

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TECH

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## Are robots sexist? UN report shows gender bias in talking digital tech

DEAN MOUNTAROPOULOS | GETTY; EDITED BY MIT TECHNOLOGY REVIEW

Artificial Intelligence / Machine Learning

## Training a single AI model can emit as much carbon as five cars in their lifetimes

Deep learning has a terrible carbon footprint.

Artificial Intelligence

# Robots as Moral Agents

Is it possible to construct some kind of 'artificial moral agents'? (implicit vs. explicit)

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Is it possible to construct some kind of 'artificial moral agents'? (implicit vs. explicit)

If so,

Which moral code should they be programmed with?

## Moral Machine