

What is Data Science?

DevHub Lunch&&Learn

June 4, 2019

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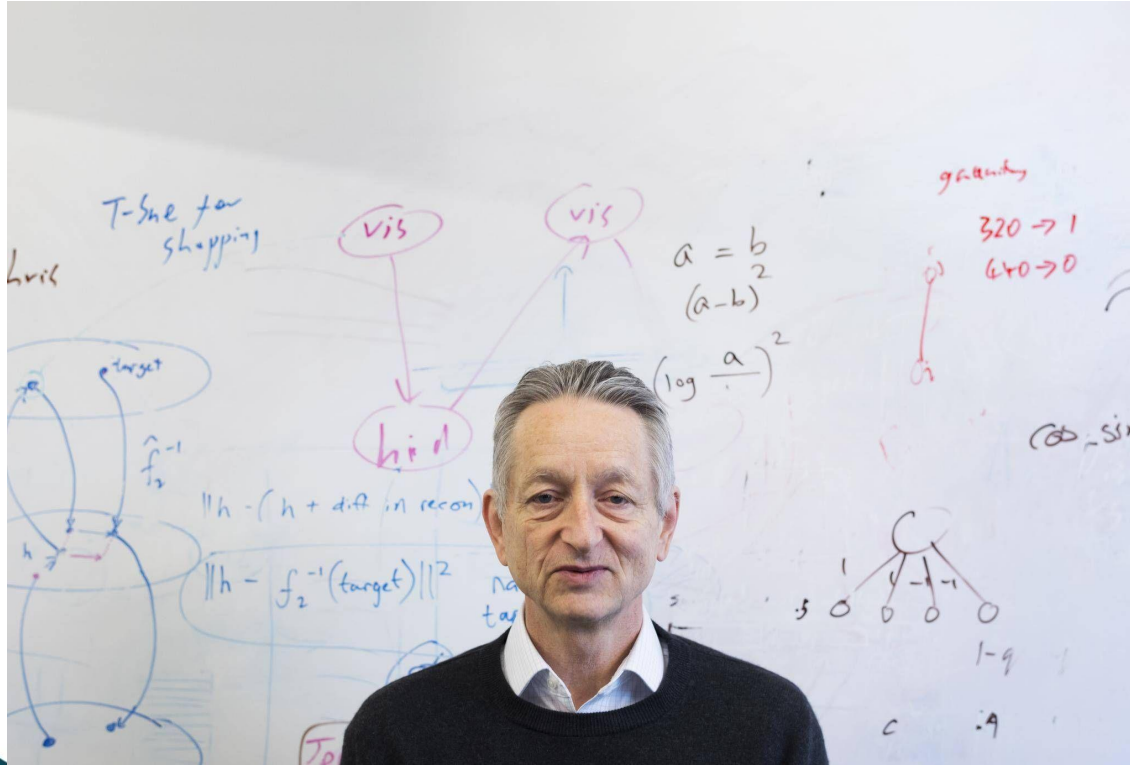
About Mercatus Technologies

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- SaaS ecommerce solutions provider for small to mid retailers.
- We help small retailers compete against big companies, and “win the weekly shop!”
- Various partnerships with other companies:
 - E.g. Shipt
- Some of my favourite things about Mercatus:
 - The coworkers!
 - The culture!
 - Dog friendly office!
 - Excellent location!

The background is a solid teal color. On the left side, there are several overlapping curved shapes in different shades of teal, creating a layered effect. Two horizontal dotted lines, composed of small teal dots, are positioned above and below the main text.

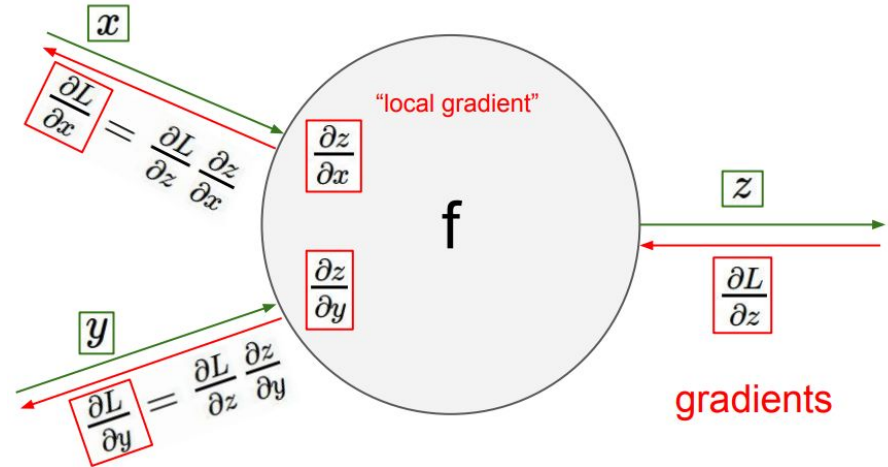
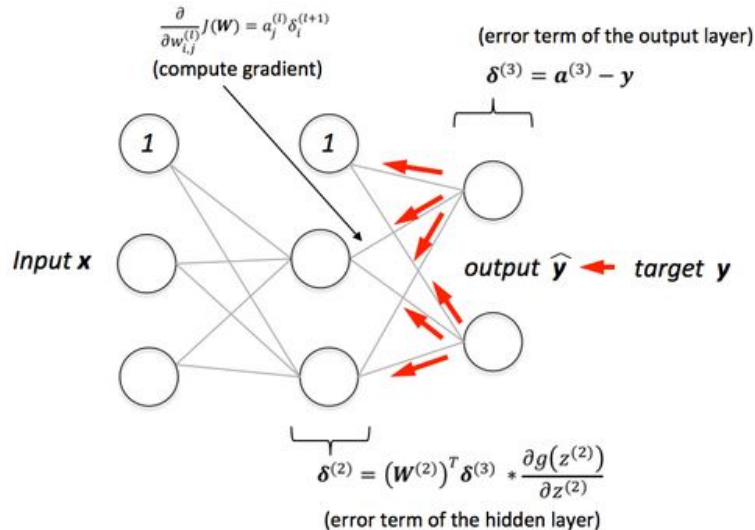
1. History







Backpropagation



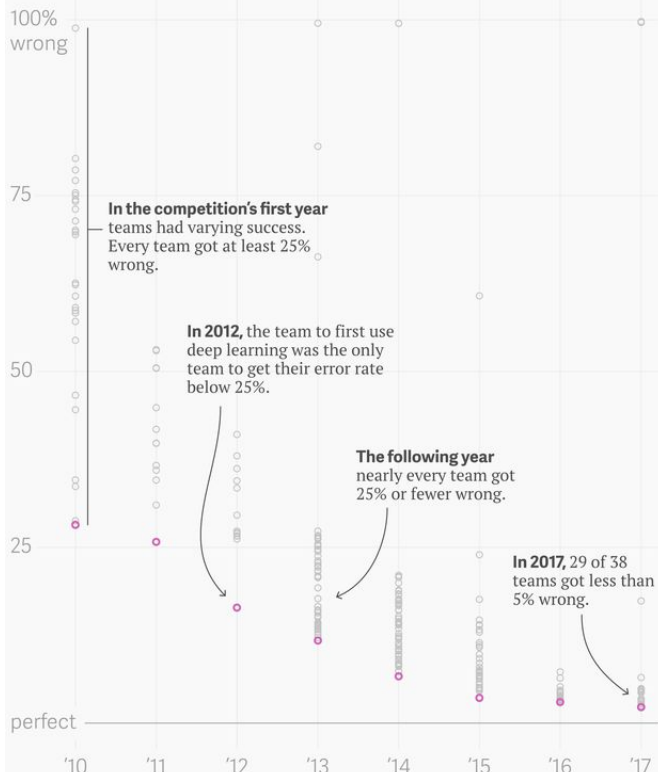


mammal → placental → carnivore → canine → dog → working dog → husky



vehicle → craft → watercraft → sailing vessel → sailboat → trimaran

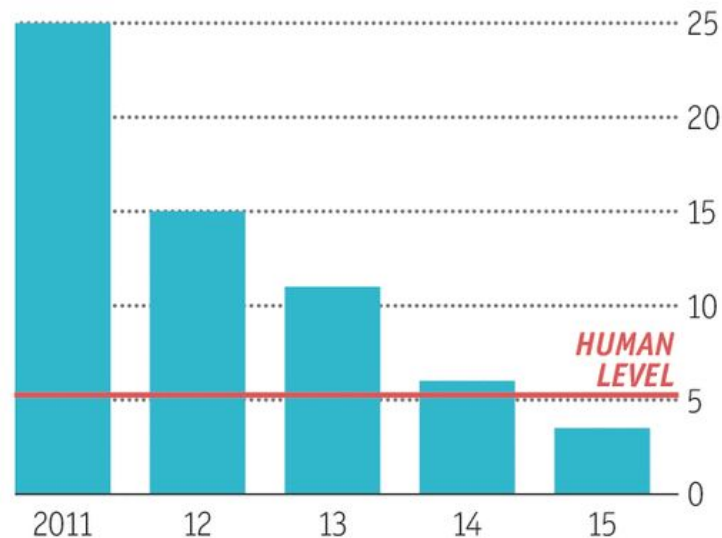
ImageNet Large Scale Visual Recognition Challenge results



David Yanofsky | Quartz

Ever cleverer

Error rates on ImageNet Visual Recognition Challenge, %



Sources: ImageNet; Stanford Vision Lab

Economist.com

Toronto and AI



2. What is Data Science/Machine Learning/Artificial Intelligence?

Dictionary

Search for a word



da·ta sci·en·tist

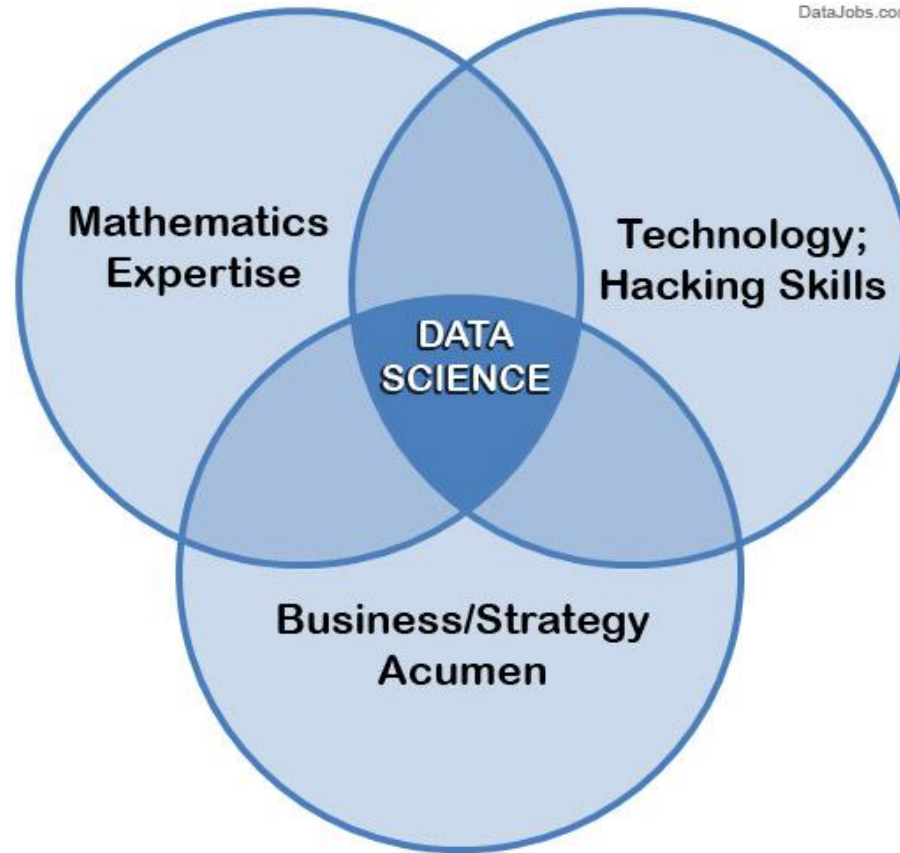
noun

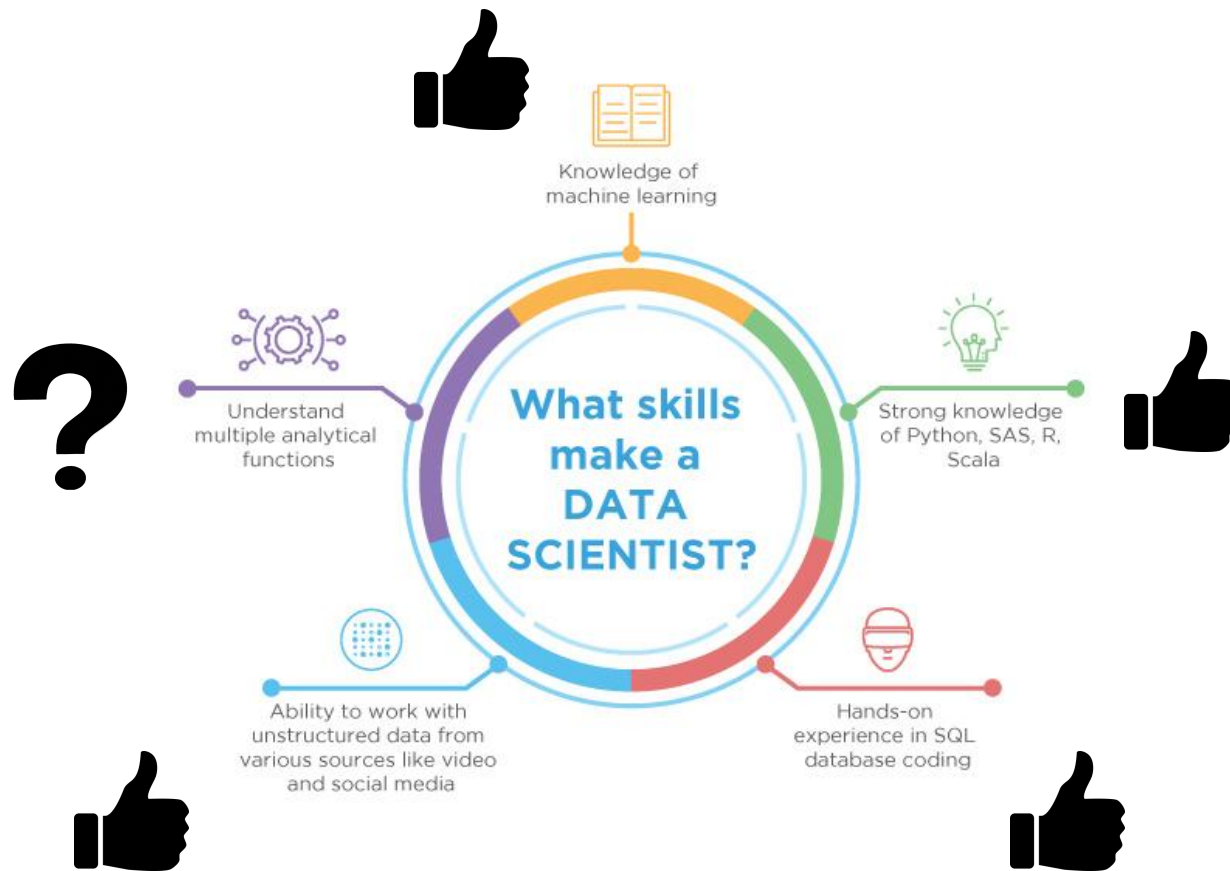
a person employed to analyze and interpret complex digital data, such as the usage statistics of a website, especially in order to assist a business in its decision-making.

"Silicon Valley technology companies are hiring data scientists to help them glean insights from the terabytes of data that they collect everyday"



Translations, word origin and more definitions





Data Science Workflow

.....

1. **Read in data.**
2. **Clean missing values and outliers.**
3. **Explore: look for interesting information, calculate summary statistics.**
4. **Build a model. Depends on business value.**
5. **Validate the model.**

MACHINE
LEARNING



More images

Machine learning



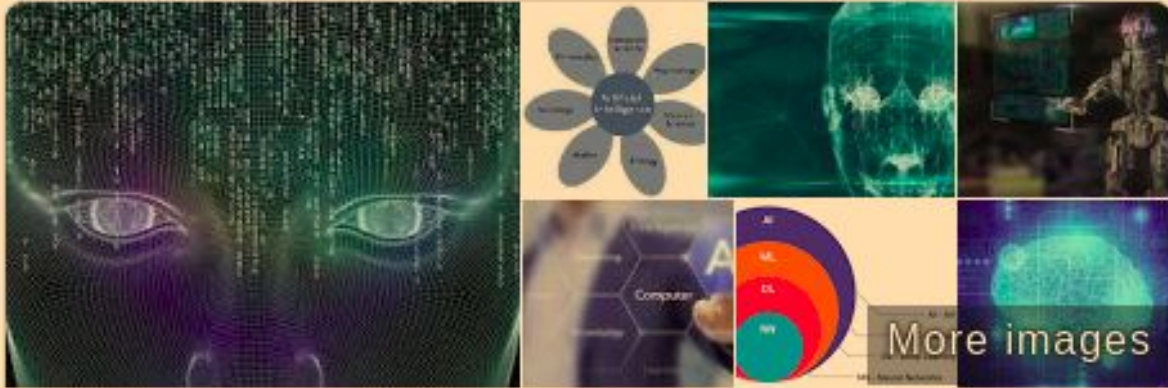
Field of study

Machine learning is the study of algorithms and mathematical models that computer systems use to progressively improve their performance on a specific task. [Wikipedia](#)

Two Types of Models

.....

- ***Mathematical:***
 - Phenomena-driven.
 - Does not change once created.
 - $F = ma$
- ***Machine learning:***
 - Data-driven.
 - Like educated “guess and check.”
 - $Y = mx + b$, where we “learn” m and b .



Artificial intelligence



Field of study


Artificial intelligence, sometimes called machine intelligence, is intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and other animals. [Wikipedia](#)

Dictionary

Search for a word



ar·ti·fi·cial in·tel·li·gence

/ˌɑːrdəˈfiʃəl inˈteləjəns/ 

noun

the theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.



Translations, word origin and more definitions

Quick Challenge:

AI or Marketing Hype?

.....

Take this to mean whatever you want!

.....



How are you?



Double tap

greasy



Hey! I'm great

Send



☆ Amazon.com to me

[show details](#) Jun 2 (6 days ago)

[Reply](#)

amazon.com

More to Explore

Customers who have shown an interest in point-and-shoot cameras might like to take a look at this week's bestselling products from Kodak.



[Kodak EasyShare
C143 Digital
Camera \(Blue\)](#)



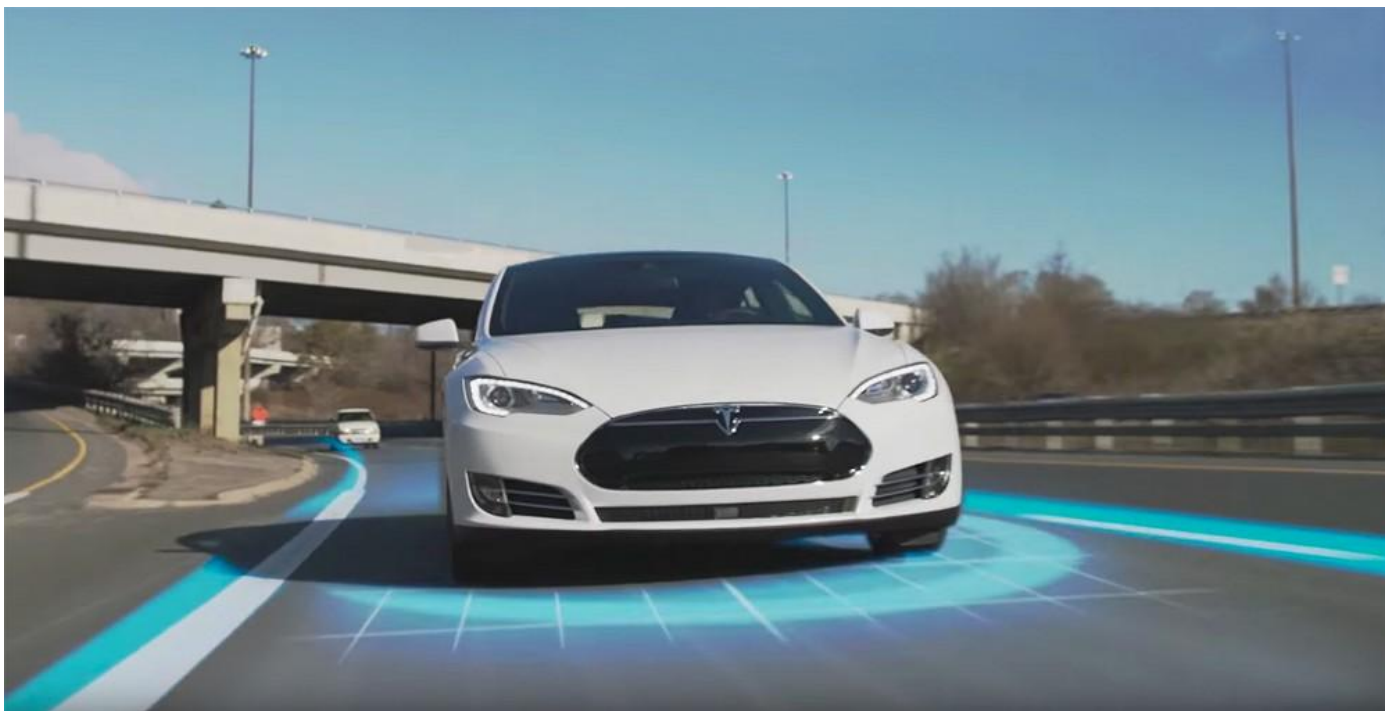
[Kodak EasyShare
C143 12 MP
Digital Camera
with 3X Optical
Zoom and 2.7-
Inch LCD \(Silver\)](#)



[Kodak EasyShare
C195 Digital
Camera \(Purple\)](#)



[Kodak EasyShare
Sport C123 12 MP
Waterproof Digital
Camera with 2.4-
Inch LCD - Blue
\(New Model\)](#)



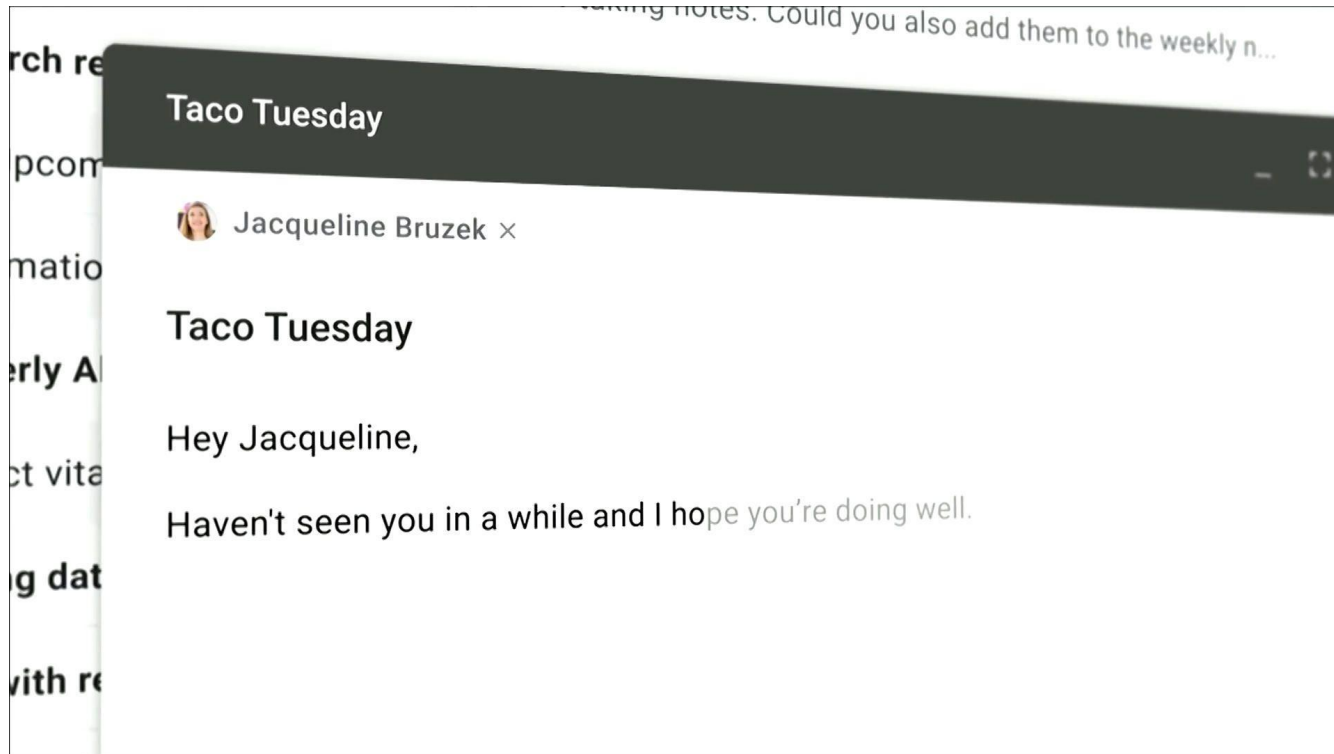
iRobot®

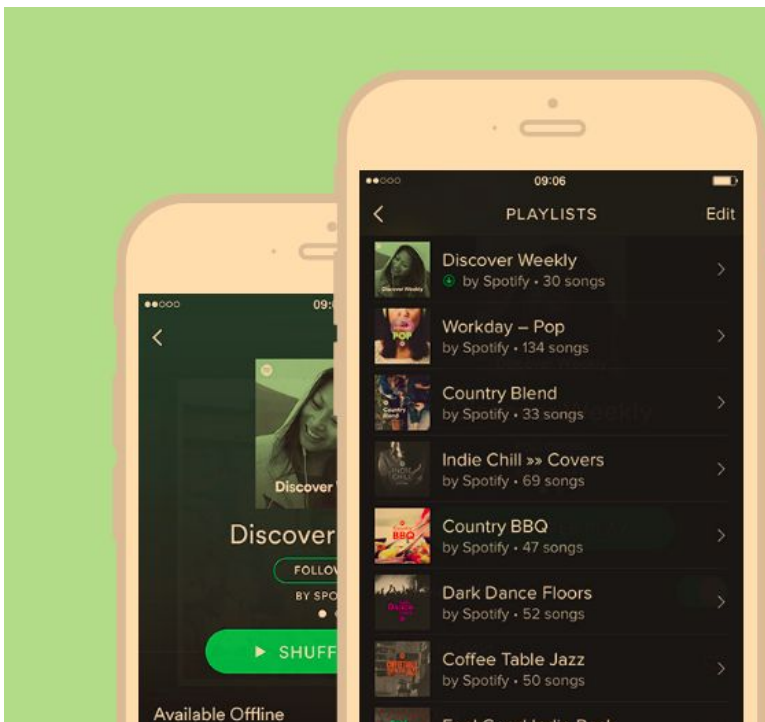
Roomba®

Staubsaug-Roboter

Die revolutionäre
Art der Reinigung





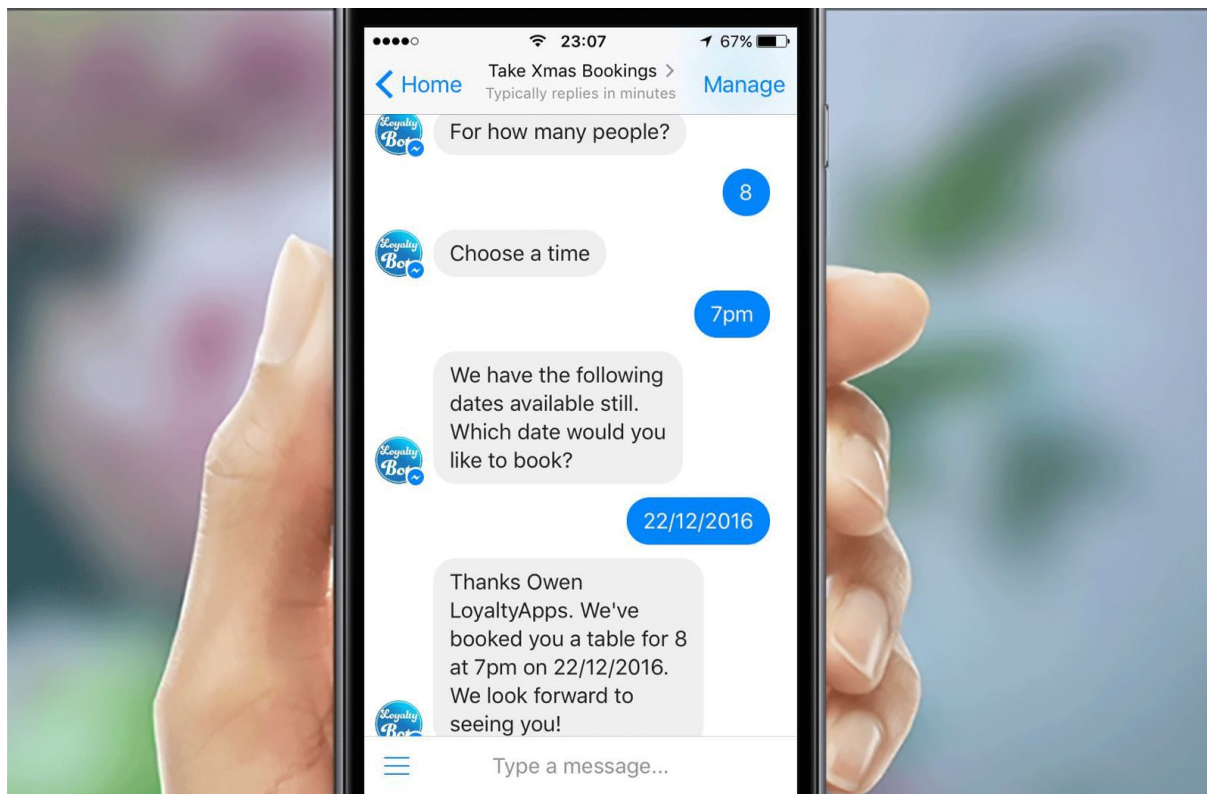


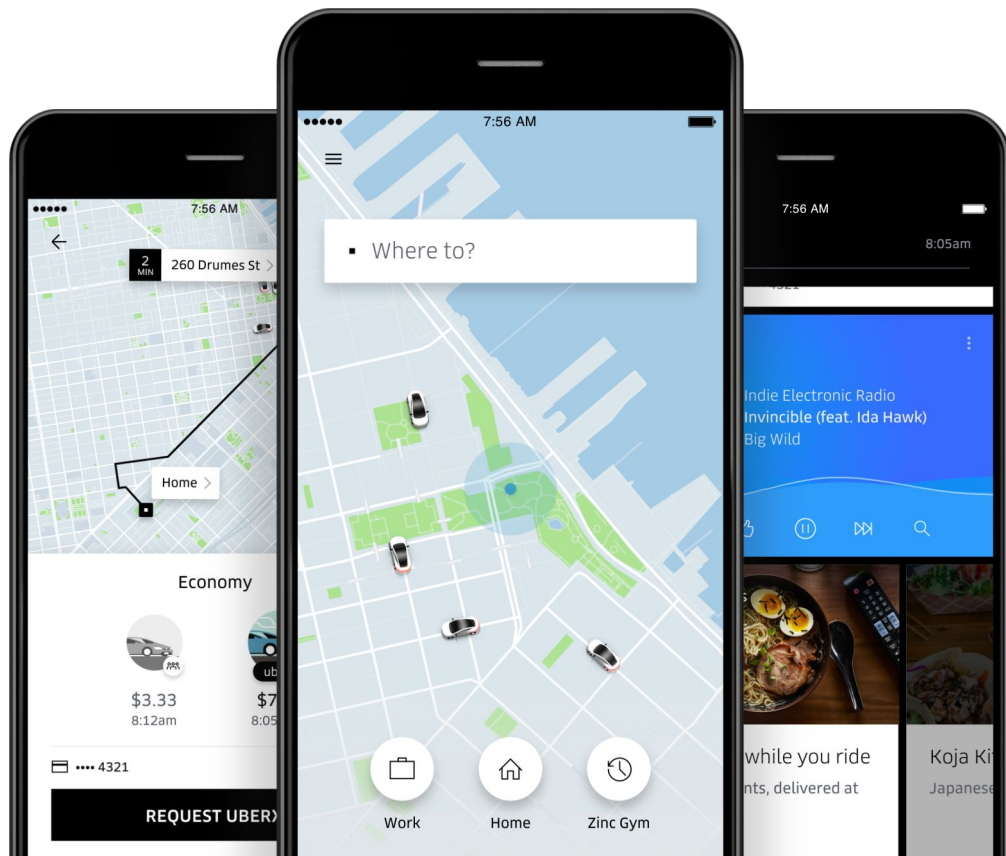
It's all yours.

Your playlist is crafted just for you, based on the music you already love.

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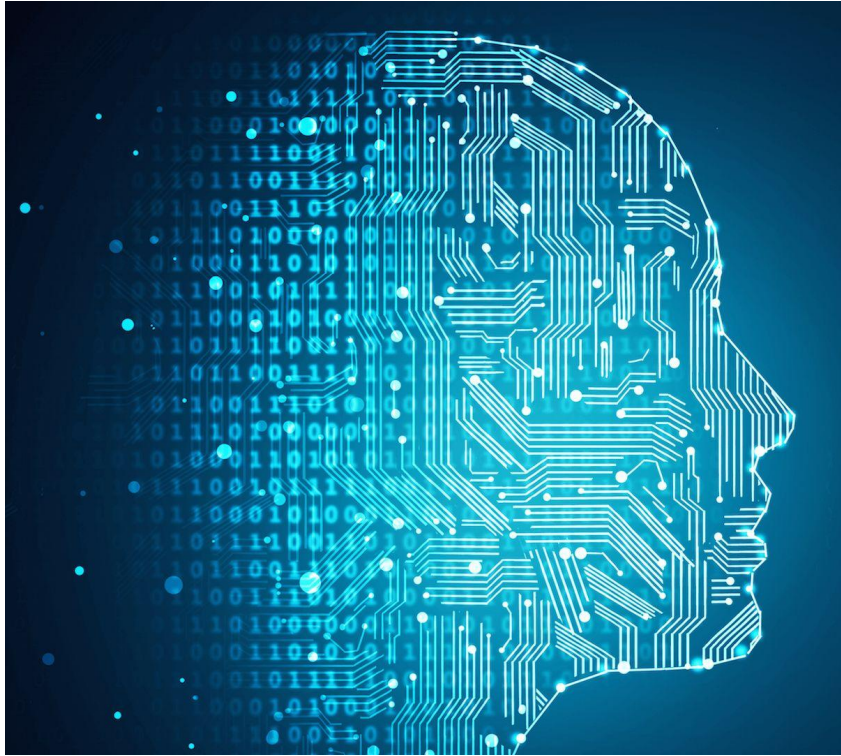


So what is it?



The background is a solid teal color with several lighter teal curved shapes on the left and bottom. Two horizontal dotted lines, one above and one below the text, are composed of small teal dots.

3. Why Should We Care?



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Thank you!

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