

Welcome! We will begin shortly...

Introduction to AI and The AI Marketing Canvas™

Jim Lecinski
Clinical Associate Professor of Marketing
June 25, 2020

Northwestern | Kellogg

Executive Education

Agenda

Welcome and Zoom webinar user tips

Today's session

→ The AI Marketing Canvas™

Q&A

Please note...

→ This webinar is being recorded

→ A link to the recording will be mailed to you in a few days

How to Participate

Northwestern | Kellogg

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Audio Settings ^



Chat



Q&A

Leave Meeting



Check Audio
Settings here

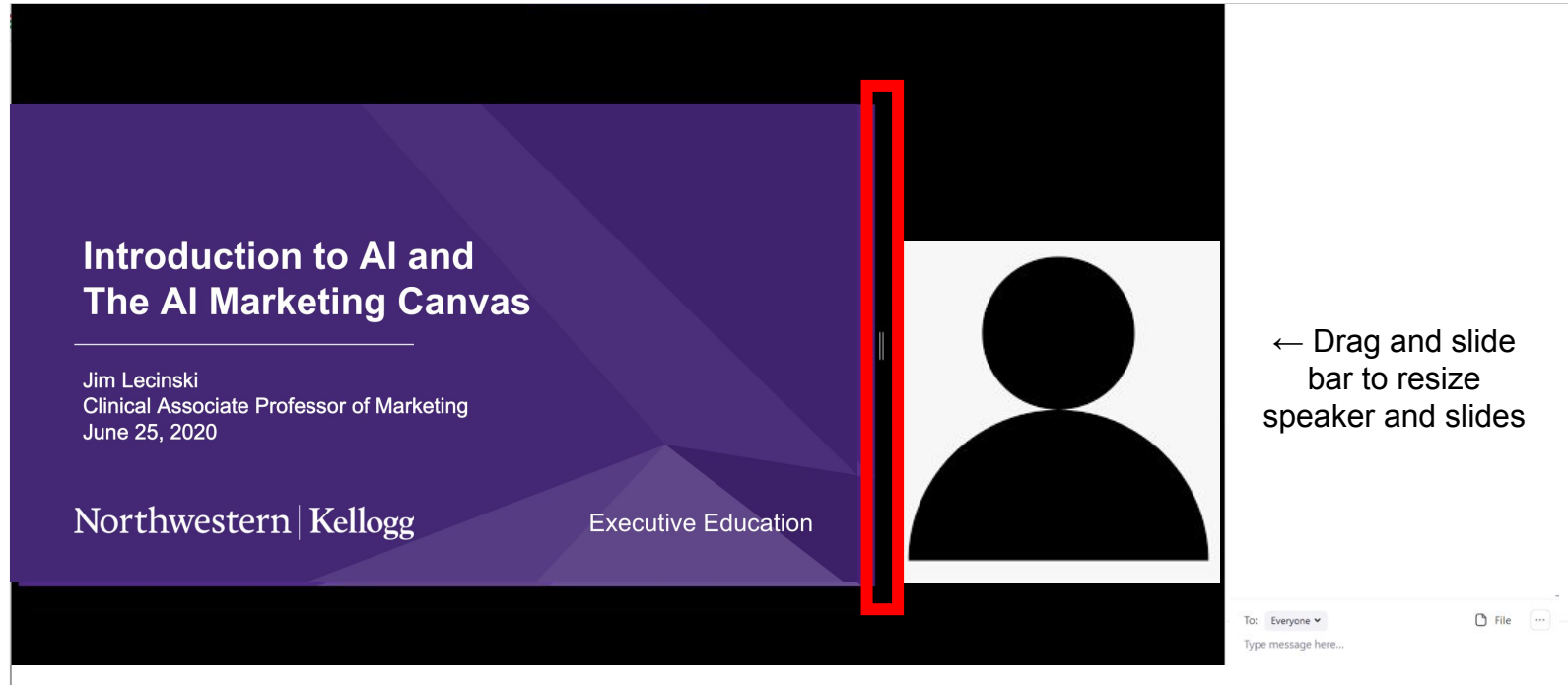


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Tech Support Team
a questions by
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“Like” other people’s questions by
clicking on the thumbs up next to their question

How to Control Your View



**Introduction to AI and
The AI Marketing Canvas**

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← Drag and slide bar to resize speaker and slides

To: Everyone File ...
Type message here...

Introduction to AI and The AI Marketing Canvas™

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“Whenever there is a mindset shift as there is now
and new technologies
(5g, machine learning, cloud and voice)
there are new industries and opportunities.”

--Rishad Tobaccowala in “The Great Reinvention”

How might you think about transforming your marketing?

Project Background: The AI Marketing Canvas™

Jim Lecinski, Northwestern University, Kellogg School

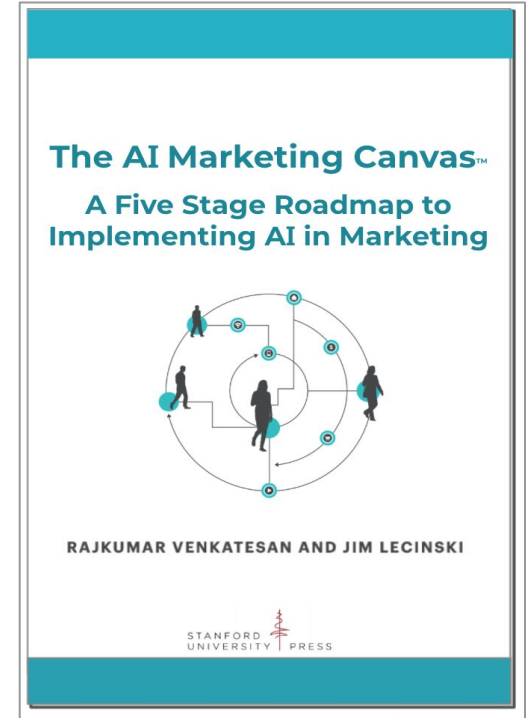
Raj Venkatesan, University of Virginia, Darden School

How AI & Machine Learning can be applied to Marketing

- Not in a Technical-first way...in a Marketing-first way = Customer First
- Focus on AI to drive growth vs cost saving efficiencies

Offer a roadmap, a path to develop your AI growth strategy

- Journal article in California Management Review*
- Book forthcoming later this year from Stanford Press



* <https://journals.sagepub.com/doi/full/10.1177/0008125619859317>



CNBC

Starbucks outpaces earnings estimates but warns coronavirus could hit fiscal 2020

Starbucks warned that the Wuhan coronavirus could “materially affect” its fiscal 2020 results. The coffee chain has closed all cafes and halted ...

Jan 28, 2020



The Motley Fool



Starbucks Stock Is a Solid Buy After Another Great Earnings Report

Starbucks stock has dropped about 15% from its summer high, but the coffee powerhouse is still firing on all cylinders.



Adam Levine-Weinberg (TMFGemHunter)

Nov 2, 2019 at 2:10PM

[Author Bio](#)



Starbucks' strategy to drive growth? “Deep Brew” AI

CEO Kevin Johnson stated the company has been ramping up its investment in **Artificial Intelligence**

*“Deep Brew will increasingly power our **personalization** engine.”*

With more customers signing up for the company's loyalty program, the opportunity for **personalization** is increasing.

Starbucks said it had **18.9 million active rewards members** at the end of the first quarter, up 16% year-over-year.

“We believe enhanced digital marketing/personalization...will continue to contribute to incremental growth.” --KeyBanc

<https://www.cnbc.com/2020/01/28/starbucks-sbux-earnings-q1-2020.html>

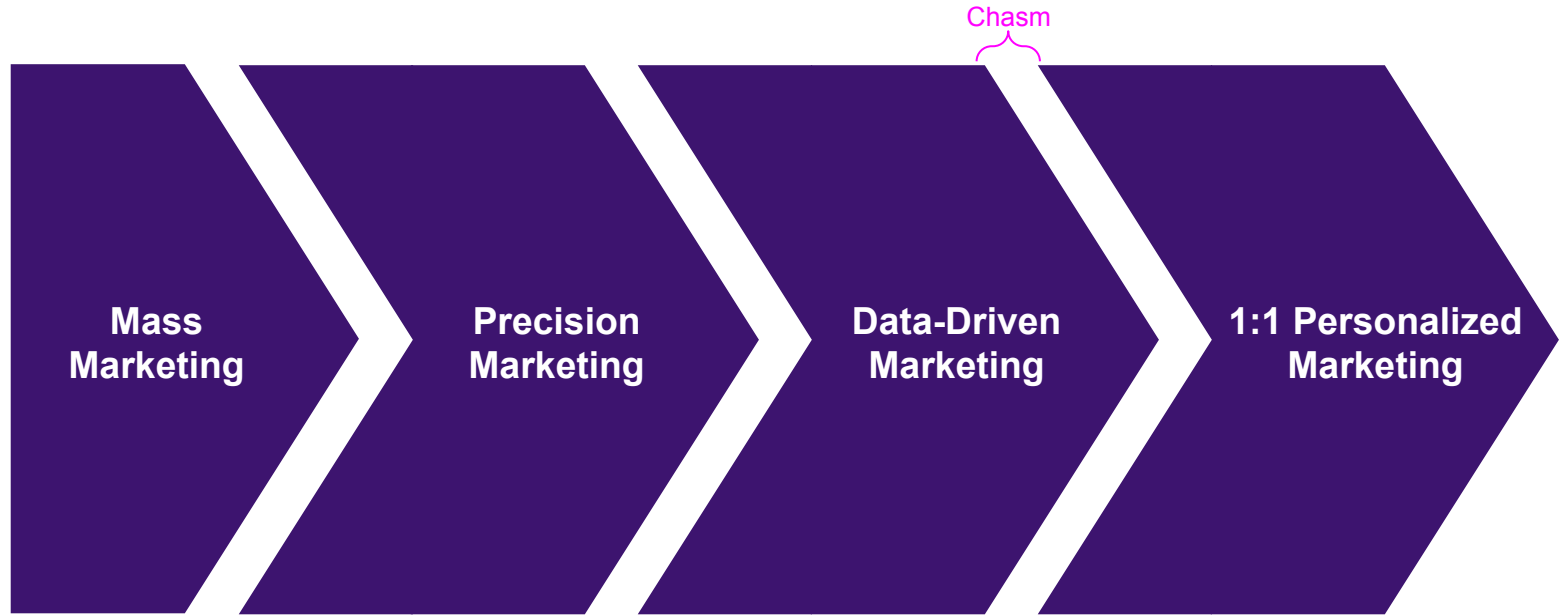


<https://www.geekwire.com/2019/digital-initiatives-artificial-intelligence-continue-fueling-innovation-starbucks/>

“A good personalized experience occurs when a company, in each moment, understands you as a person, decides what the best experience for you would be, and responds with relevance.”

--Karl Wirth, CEO Evergage

The Long Term “Arc” of Marketing



Segments:

1-3

Dozens (Personae)

Hundreds

Millions

Data:

Low

Low-Medium

Medium

High

Technology:

Low

Low-Medium (Research)

Medium (Database)

High

Delivering this deeply personalized experience
requires a significant shift for companies

“The future of your business is **Big Data** and **Machine Learning** applied to the business opportunities and customer challenges before you.”

--Eric Schmidt, 2017 CloudNext Conference

So what are Artificial Intelligence & Machine Learning?

Begins with the great Alan Turing



VOL. LIX. No. 236.]

[October, 1950

MIND
A QUARTERLY REVIEW
OF
PSYCHOLOGY AND PHILOSOPHY

I.—COMPUTING MACHINERY AND
INTELLIGENCE

BY A. M. TURING

1. *The Imitation Game.*

I PROPOSE to consider the question, 'Can machines think?' This should begin with definitions of the meaning of the terms 'machine' and 'think'. The definitions might be framed so as to reflect so far as possible the normal use of the words, but this attitude is dangerous. If the meaning of the words 'machine' and 'think' are to be found by examining how they are commonly used it is difficult to escape the conclusion that the meaning and the answer to the question, 'Can machines think?' is to be

The “Turing Test”



“...if a sufficient proportion of the interrogators are unable to distinguish the computer’s responses from a human being’s...

...then according to Turing’s test, the computer is considered an intelligent, thinking entity.”

The original definition of AI



“Systems that perform actions that if performed by humans would be considered intelligent.”

--John McCarthy, 1956 Dartmouth Conference

*MIT, Stanford
The “Father of AI”*

Things that humans do considered “intelligent”

Humans have 85 billion neurons which allow us to...

Learn from the

Past

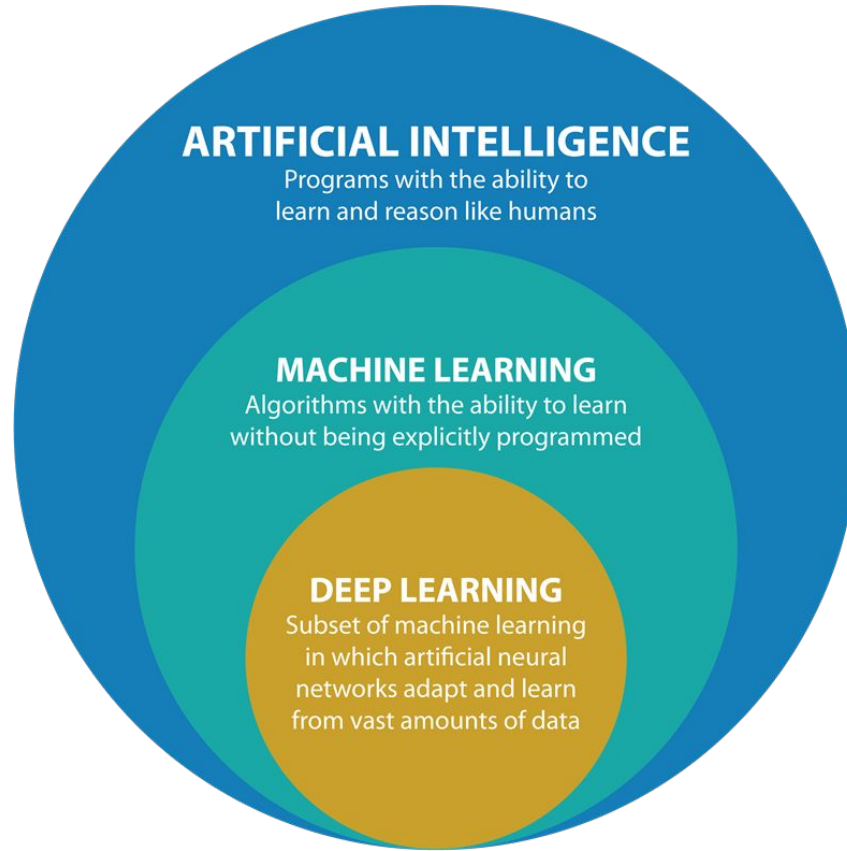
Characterize the

Present

Foresee and predict the

FUTURE

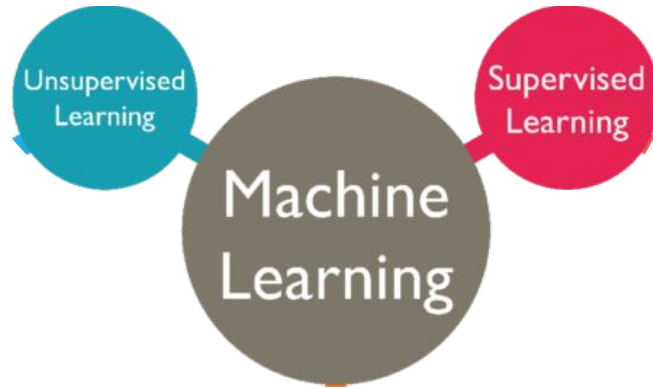
Some definitions



<https://www.argility.com/argility-ecosystem-solutions/iot/machine-learning-deep-learning/> | <https://arstechnica.com/science/2019/12/how-neural-networks-work-and-why-theyve-become-a-big-business/> | Video Explanation at: <https://www.youtube.com/watch?v=g7bKMHdxlPU>

Machine Learning uses examples (“training data”)
to make predictions,
in a sense “forward thinking”
and “learning” or improving over time

Many types of Machine Learning models



<https://medium.com/marketing-and-entrepreneurship/10-companies-using-machine-learning-in-cool-ways-887c25f913c3>

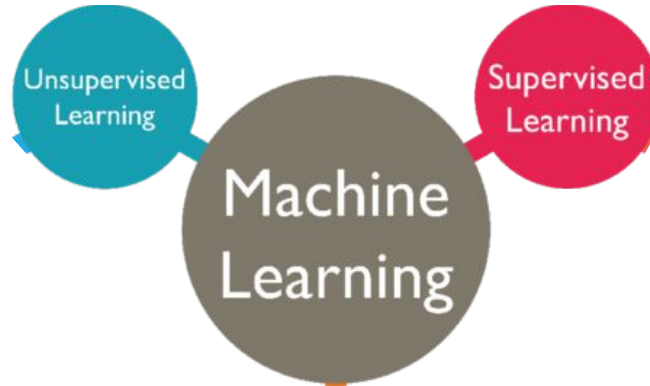
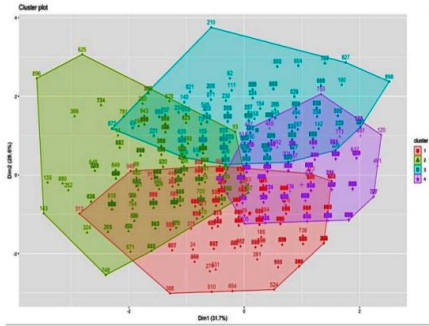
Many types of Machine Learning models

You don't know the right answer

Unlabeled Data

Grouping
Clustering

“How many customer segments should we have?”



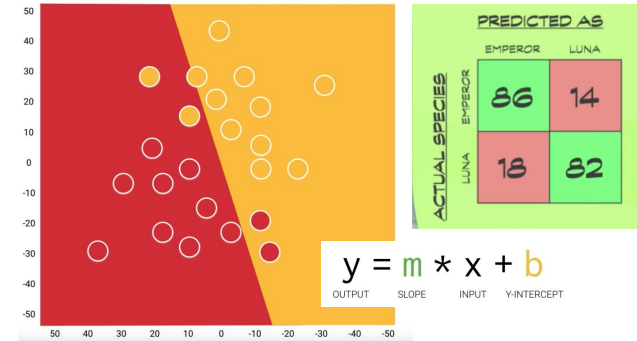
Rooted in Statistical Methods like
Regression, Cluster Analysis, Support
Vector Machine (linear, non-linear)

You know the right answer

Labeled Data

Labeling
Classification

“Separate this population into
best customers and those likely
to attrit.”



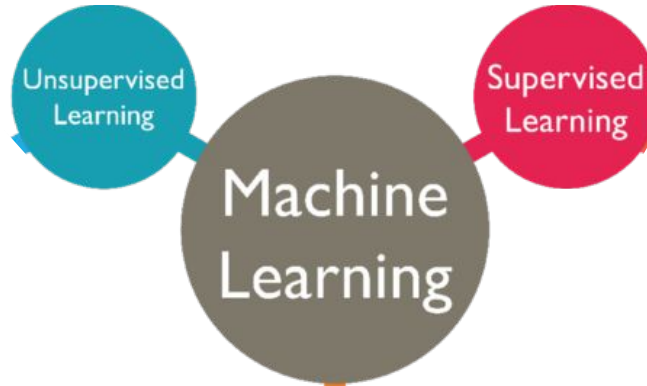
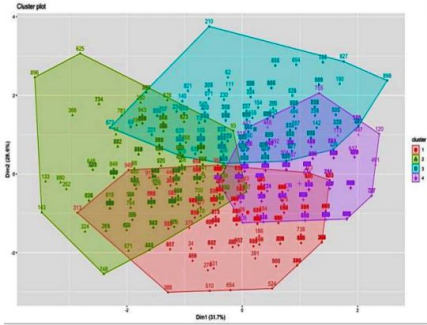
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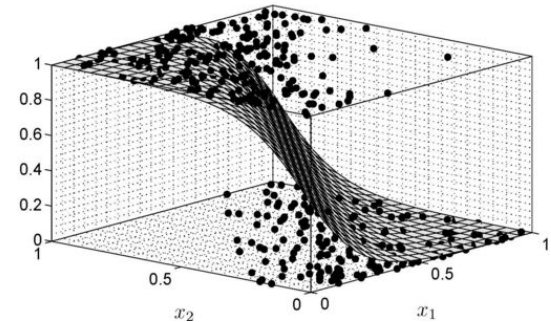
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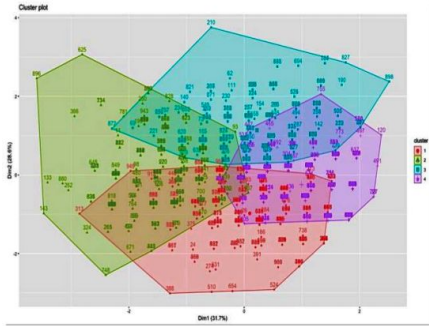
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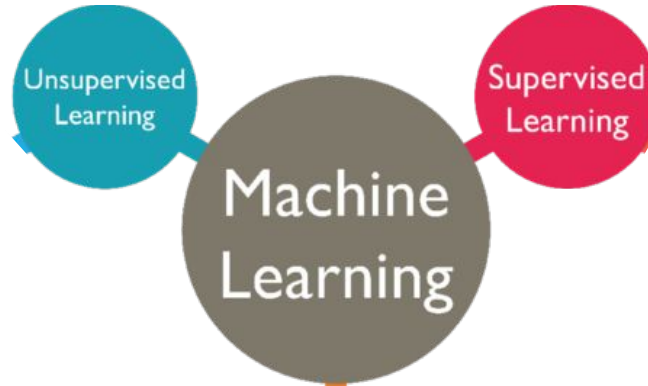
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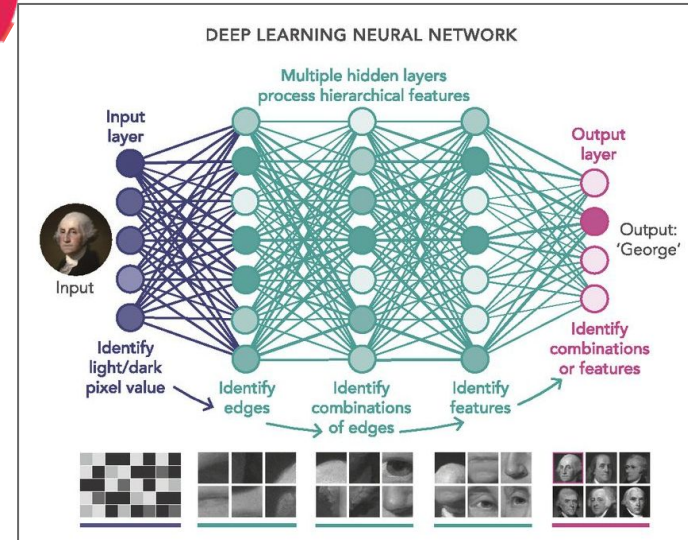
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Labeled Data

Labeling
Classification



May also be done with
non-Statistical based methods
such as Deep Learning with
complex Neural Networks



<https://medium.com/marketing-and-entrepreneurship/10-companies-using-machine-learning-in-cool-ways-887c25f913c3>

How is Machine Learning used, being applied today?

ML to predict healthcare

GOOGLE

Google Researchers Trained an Algorithm to Detect Lung Cancer Better Than Radiologists

Melanie Ehrenkranz
Monday 7:00pm • Filed to: ALGORITHM

35.8K 14 2

f t e l







Initial scan with AI detection

GIF: Google

<https://gizmodo.com/google-researchers-trained-an-algorithm-to-detect-lung-1834902364>


ML to predict visual product search

8:57    




TE

Foodvisor automatically tracks what you eat using deep learning

Romain Dillet
@romaindillet / 6 days ago



Meet **Foodvisor**, a startup that has built a mobile app that helps you log everything you eat in order to lose weight, follow a diet or get healthier. You can add data by capturing a photo of your plate before you eat.

ML to predict visual product search

Amazon launches Part Finder, built by technology it acquired from Partpic in 2016

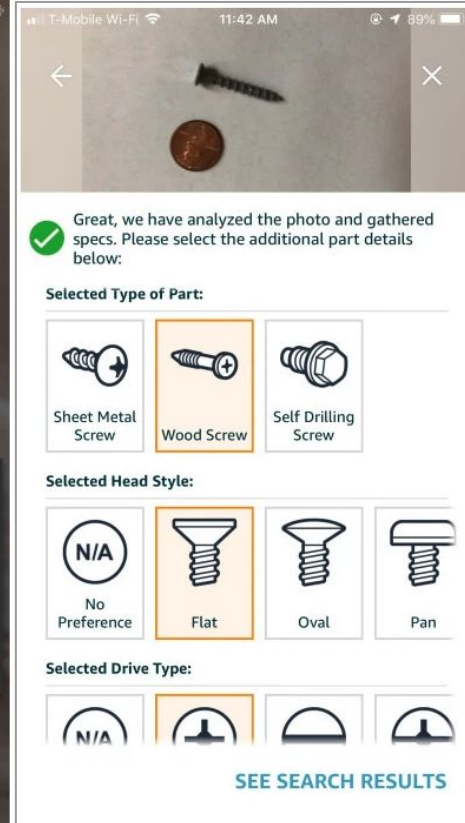
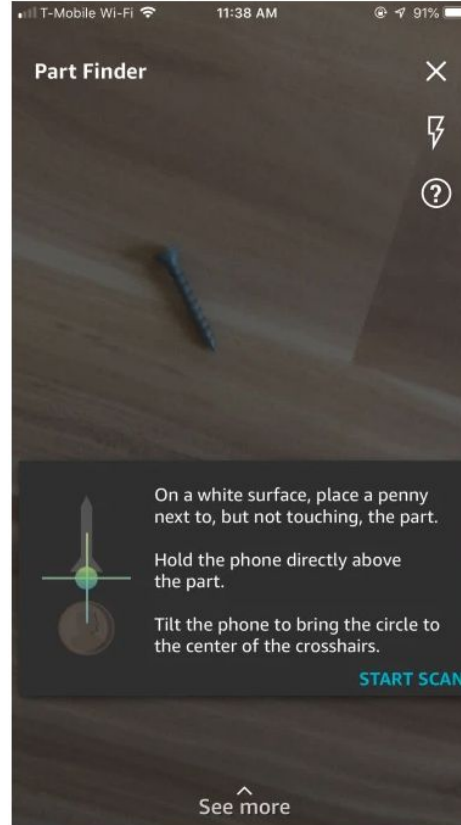
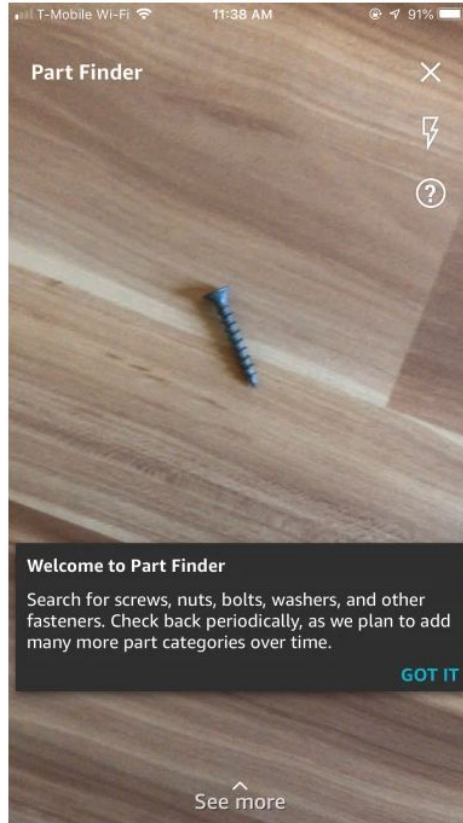
Sarah Perez @sarahintampa / 11:31 am CDT • July 19, 2018



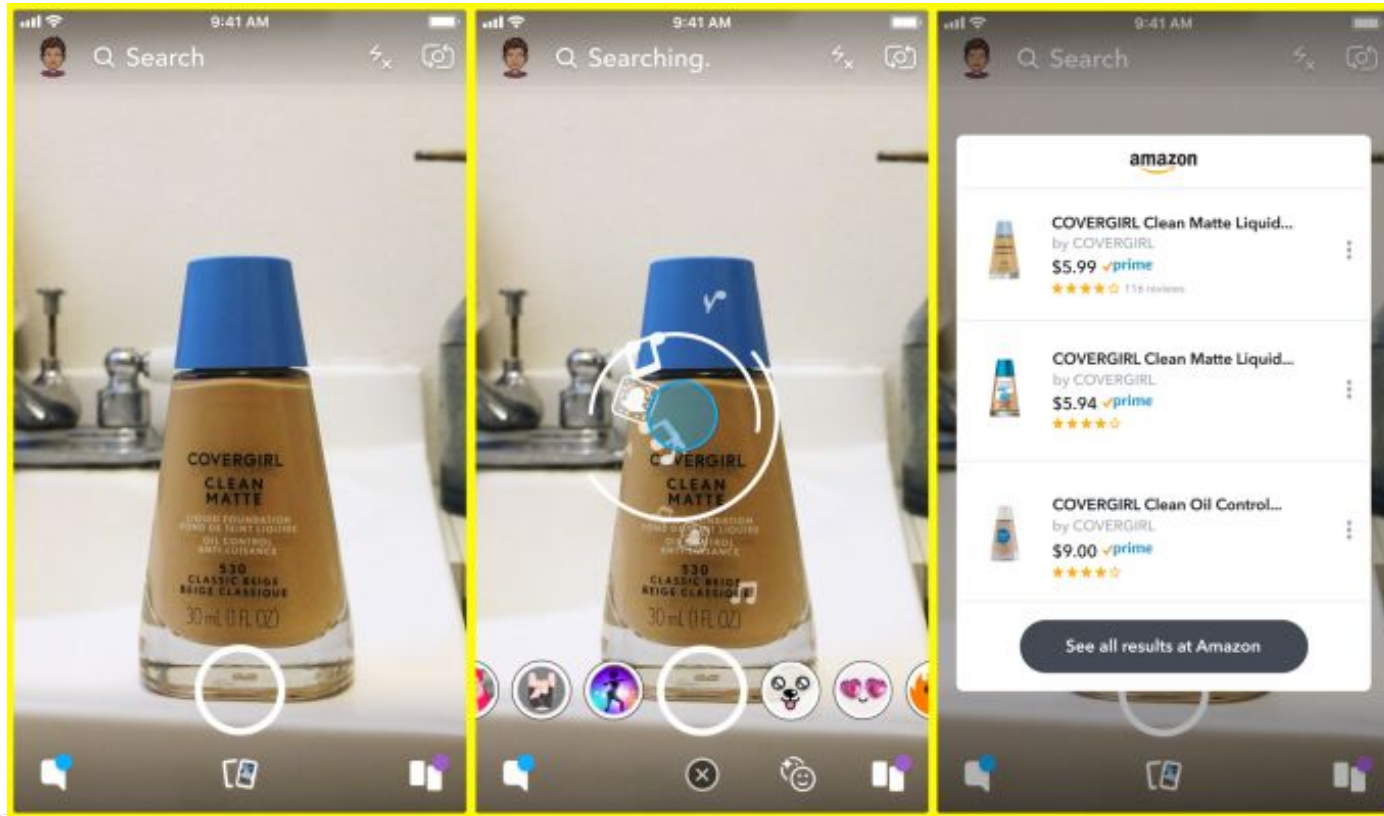
Image Credits: Thomas Trutsche / Getty Images

Got an odd screw, nut, bolt, washer or fastener you need to buy more of, but have no idea of how to find the right one?

Amazon's ® "Part Finder" can help. The company has rolled out a new feature on mobile that lets you point your camera at the item in question, so Amazon can scan it, match it, then direct you to matching items from its product catalog.

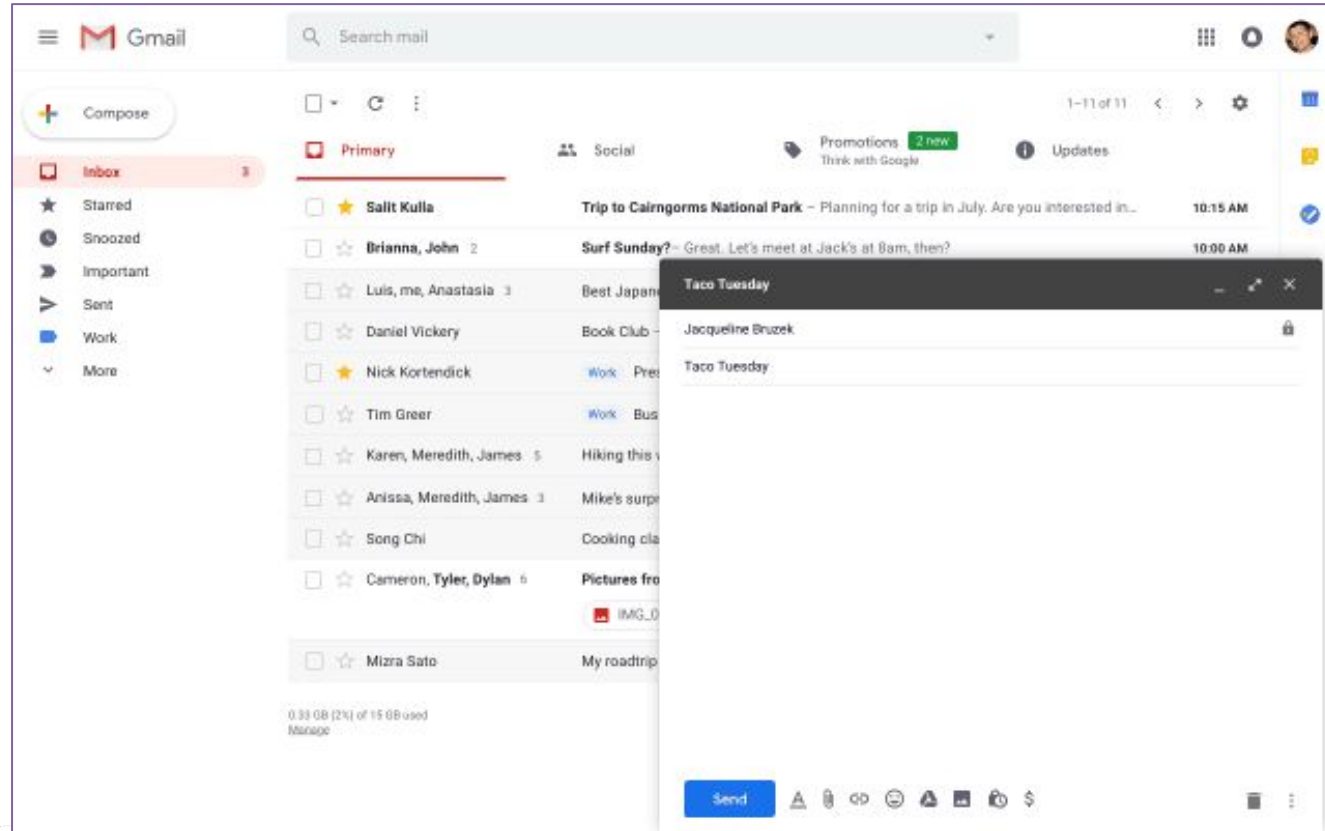


ML to predict visual product search

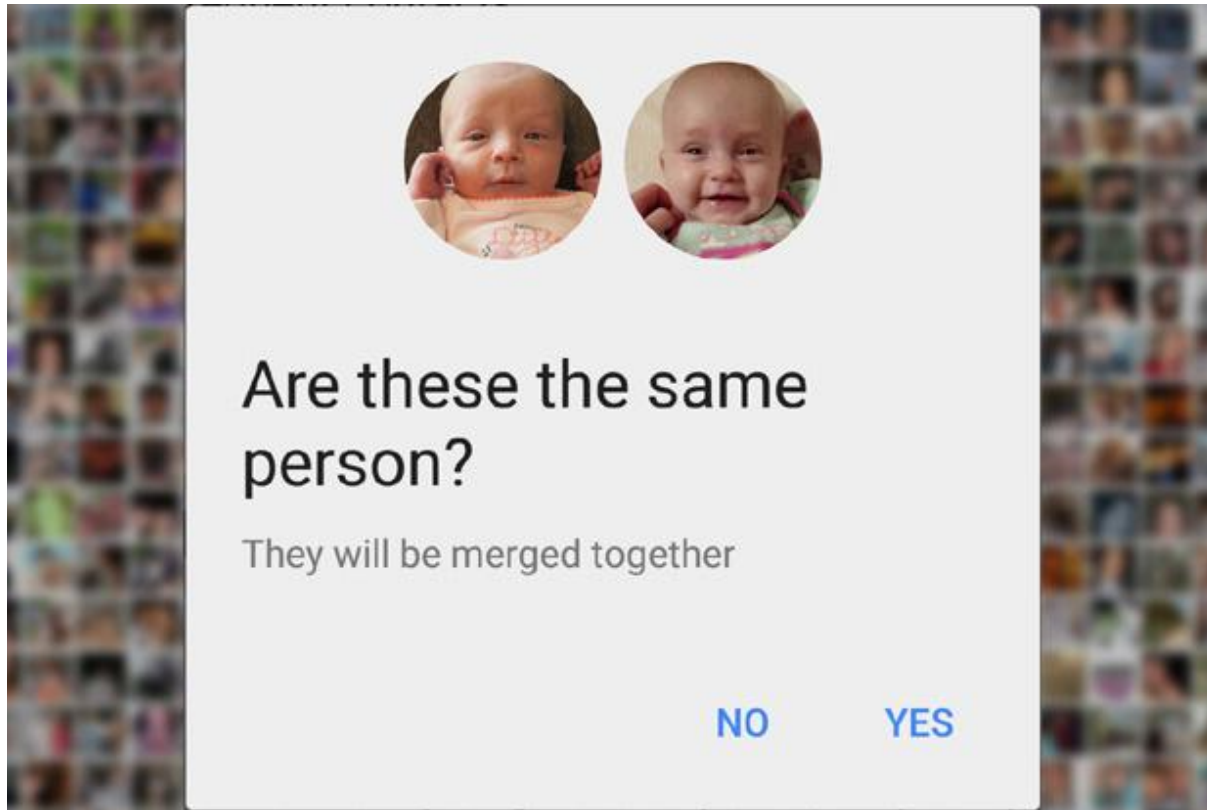


<https://techcrunch.com/2018/09/24/snapchat-amazon-visual-search/>

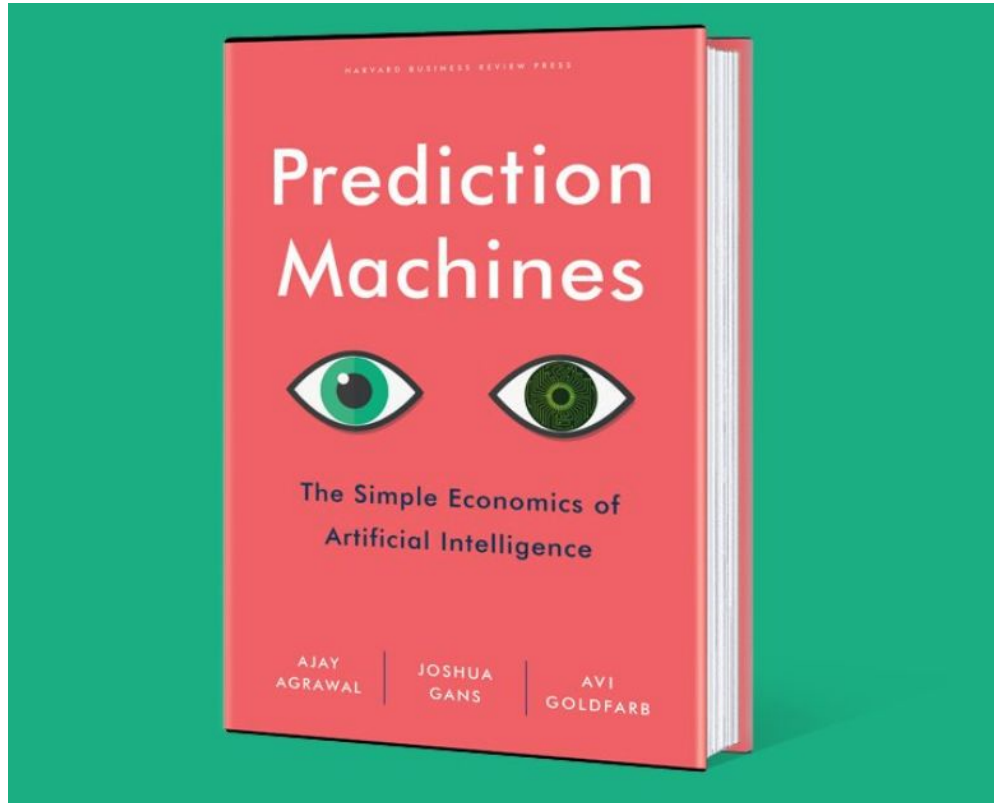
ML to predict text input



You help the Machine “Learn”

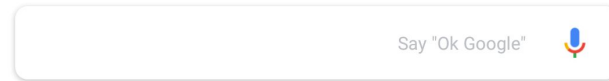


Highly recommend reading this book!



Marketing is all about making predictions
to deliver the right best personalized experience

Marketing as Prediction: Google Search campaign



1

2

3

4

5

6

7

8

Keyword | Creative | Landing Page | Recipient | Geography | Day of Week | Time of Day | Bid

10 x 10 x 10 x 10 x 10 x 10 x 10 x 10

= 10^8 combinations!

Machine Learning enables “Modern Marketing” to scale

Managing the sophistication of today’s cross-channel personalized customer engagement exceeds human cognitive capacity.

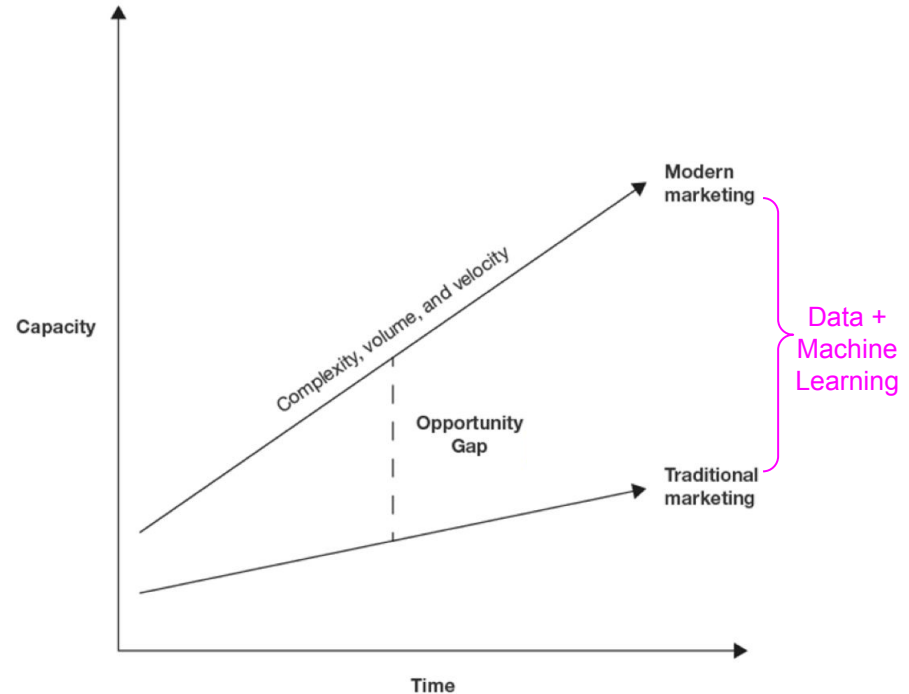


Image Source: Forrester

Most have only just begun implementing Marketing AI

Advertisers Wary of Artificial Intelligence

It's a wait and see proposition for many advertisers

50%

*That's up 14%
since April of 2019.*

Of advertisers now say they have no plans to use artificial intelligence for marketing efforts.

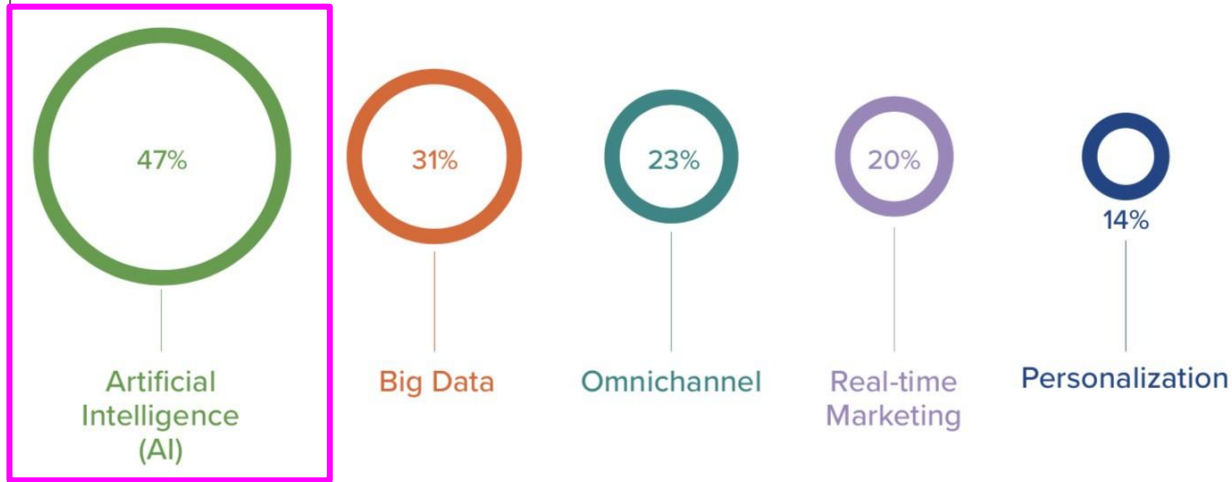
Source: January 2020 Advertiser Perceptions Omnibus Report

<https://www.advertiserperceptions.com/news/>

Many marketers think it's hype that can be ignored

OVERHYPED MARKETING BUZZWORDS

Which of these marketing concepts do you consider to be overhyped, meaning the concept is more fantasy than reality?

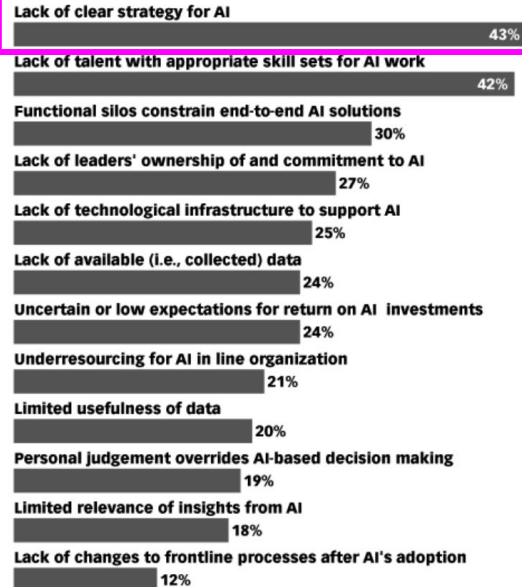


<https://www.forbes.com/sites/rganatra/2018/03/04/is-artificial-intelligence-in-marketing-overhyped/#6ad31e7b6681>

Lack of Marketing AI strategy is biggest barrier

What Do Professionals Worldwide See as the Most Significant Barriers Organizations Face in Adopting AI?

% of respondents, Feb 2018



"We have no clear plan or path."

Note: n=1,646 whose organization has piloted or embedded AI in at least 1 function or business unit; responses of "other" or "don't know/not applicable" not shown

Source: McKinsey & Company, "AI Adoption Advances, but Foundational Barriers Remain," Nov 13, 2018

243170

www.eMarketer.com

What can we learn from Brands already down this path
of implementing AI in Marketing?

Some of the Brands we interviewed



The Washington Post

Google



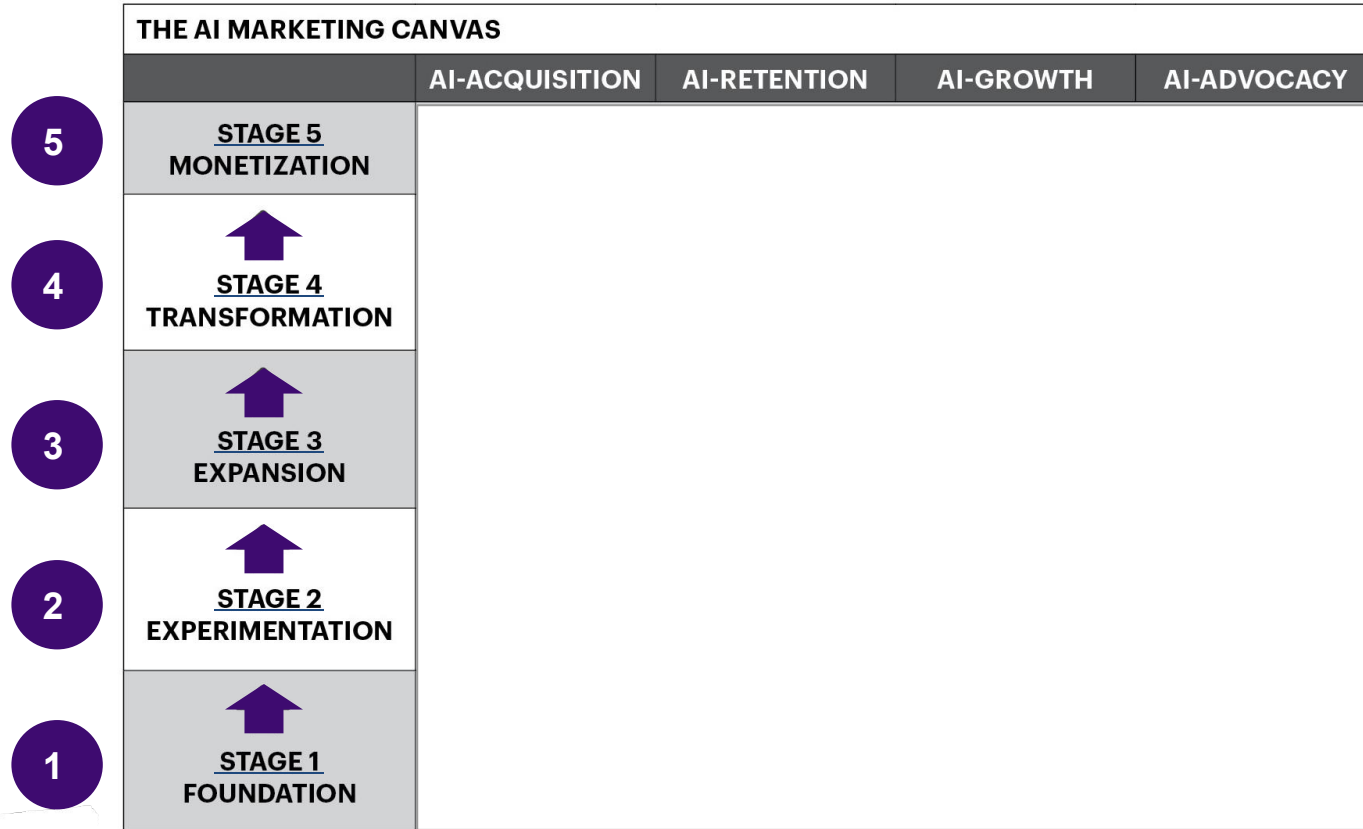
ancestry®







Remarkably consistent pattern emerged:

Five sequential maturity levels

AI Marketing Canvas™ | Five stages of AI maturity



AI Marketing Canvas™ | Stage 1: Foundation

THE AI MARKETING CANVAS				
	AI-ACQUISITION	AI-RETENTION	AI-GROWTH	AI-ADVOCACY
STAGE 5 MONETIZATION				
 STAGE 4 TRANSFORMATION				
 STAGE 3 EXPANSION				
 STAGE 2 EXPERIMENTATION				
 STAGE 1 FOUNDATION				
	Prerequisite: Adequate amount of quality data to begin training machine learning models and supercharge customer relationship moments exists.			

1



Follow all relevant legal, social, cultural and ethical standards

Stage 1--Foundation example: Unilever

THE AI MARKETING CANVAS				
	AI-ACQUISITION	AI-RETENTION	AI-GROWTH	AI-ADVOCACY
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STAGE 3 EXPANSION	AI across a broader set of marketing activities. AI Marketing Champion named. Efforts coordinated, and in-house capabilities begin to develop.			
STAGE 2 EXPERIMENTATION	AI-powered tools from third parties and vendors to get some quick learnings/wins at individual moment(s) in the customer journey. "A thousand flowers..."			
STAGE 1 FOUNDATION	Prerequisite: Adequate amount of quality data to begin training machine learning models and supercharge customer relationship moments exists.			



We bring flavor to people's lives. This sticker set is for all those special family moments! Friend Knorr Thailand's official account to get the set for free. Available till February 25, 2018.

[View details](#)





Unilever Thai Trading Co.,Ltd. >
Knorr Family
Valid for 180 days
Get this free! (Terms apply)

[Download](#)

Tap a sticker to preview it.

The stickers show a family of four in various cooking and eating scenarios. One sticker shows a child saying 'Hello', another shows a child saying 'Hi', and others show the family eating and cooking together.

AI Marketing Canvas™ | Stage 2: Experimentation

THE AI MARKETING CANVAS				
	AI-ACQUISITION	AI-RETENTION	AI-GROWTH	AI-ADVOCACY
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2

Stage 2--Experimentation example: JPMorgan Chase

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AdAge Sections Latest Editor's Picks Most Popular

CHASE COMMITS TO AI AFTER MACHINES OUTPERFORM HUMANS IN COPYWRITING TRIALS



Bank enters a five-year deal with AI partner Persado to help create marketing language across platforms

By Adrienne Pasquarelli, Published on July 30, 2019.

The deal follows a pilot program where JPMorgan saw its click-through rates on ads jump by as much as 450% with the robot's creative.

<https://adage.com/article/cmo-strategy/chase-commits-ai-after-machines-outperform-humans-copywriting-trials/2187606?>
<https://www.bloomberg.com/news/articles/2019-07-30/jpmorgan-says-robots-beat-don-draper-in-writing-credit-card-ads>

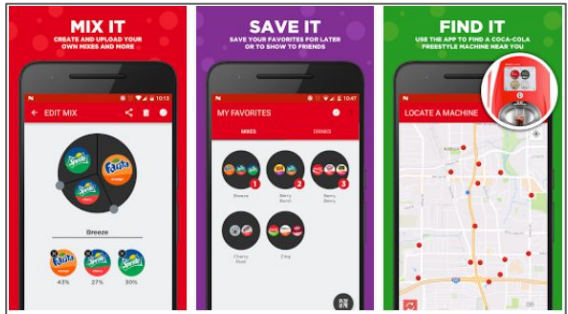
AI Marketing Canvas™ | Stage 3: Expansion

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3

Stage 3--Expansion example: The Coca-Cola Company

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“Vending and sampling are two examples of previously anonymous, transient transactions that, when combined with a messaging interface, allow (Coke) to gather user feedback and track data, like individual purchase history and preferences, to remarket and personalize offers.”

--Lauren Kunze

<https://aibusiness.com/coca-cola-ai/>
https://www.youtube.com/watch?v=U18uJl0GNco&feature=emb_title

AI Marketing Canvas™ | Stage 4: Transformation

4

THE AI MARKETING CANVAS				
	AI-ACQUISITION	AI-RETENTION	AI-GROWTH	AI-ADVOCACY
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↑ STAGE 3 EXPANSION				
↑ STAGE 2 EXPERIMENTATION				
↑ STAGE 1 FOUNDATION				

Stage 4--Transformation: John Deere (“Buy”)

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Forbes | Billionaires | Innovation | Leadership | Money | Business | Small Business | Lifestyle

Microsoft Azure | Build and develop apps with Azure. Free until you say otherwise.

14,394 views | Mar 16, 2019, 9:13am

The Amazing Ways John Deere Uses AI And Machine Vision To Help Feed 10 Billion People

Bernard Marr | Contributor @ Enterprise & Cloud

f In just 30 years' time, it is forecasted that the human population of our planet will be close to 10 billion.

Production enough food to feed these hungry mouths will be a challenge, and demographic trends such as urbanization, particularly in developing countries, will only add to that.

Intelligent Farms: John Deere S-Series Combine | john.deere



Blue River Group, acquired 2017 for \$300MM, computer vision

Cameras see what's happening in field real-time, 1-2MM plants

Enables autonomous decision-making based on learning

“Combine Advisor” auto-sorts grain quality

“See & Spray” system, uses 80-90% less

Established JD Labs incubator for future AI ideas (Stage 5)

Stage 4--Transformation: Starbucks ("Build")

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MarketWatch

Home > Industries > Food/Beverages/Tobacco > The Ratings Game

Starbucks gets personal with Deep Brew artificial intelligence program

By Tonya Garcia
Published: Nov 1, 2019 7:52 a.m. ET

SHARE COMMENTS

Starbucks reported 6% same-store sales growth in the U.S. and 5% growth in China, as cold drinks are getting hot





Starbucks is stepping up technology to improve everything from customer service to labor management

Starbucks Corp. is getting personal with its customers, enlisting help from advanced technologies that the company says will kick its digital capabilities up a notch.

<https://www.marketwatch.com/story/starbucks-gets-personal-with-deep-brew-artificial-intelligence-program-2019-10-31>

AI Marketing Canvas™ | Stage 5: Monetization

5

THE AI MARKETING CANVAS				
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Stage 5--Monetization example: The Washington Post

THE AI MARKETING CANVAS				
	AI-ACQUISITION	AI-RETENTION	AI-GROWTH	AI-ADVOCACY
STAGE 5 MONETIZATION	AI to drive significant new revenue streams and/or new business models. Serve external customers as a platform.			
STAGE 4 TRANSFORMATION	AI to automate complete set of marketing activities across full customer journey. Strong in-house competency. "Build or Buy."			
STAGE 3 EXPANSION	AI across a broader set of marketing activities. AI Marketing Champion named. Efforts coordinated, and in-house capabilities begin to develop.			
STAGE 2 EXPERIMENTATION	AI-powered tools from third parties and vendors to get some quick learnings/wins at individual moment(s) in the customer journey. "A thousand flowers..."			
STAGE 1 FOUNDATION	Prerequisite: Adequate amount of quality data to begin training machine learning models and supercharge customer relationship moments exists.			

The Washington Post

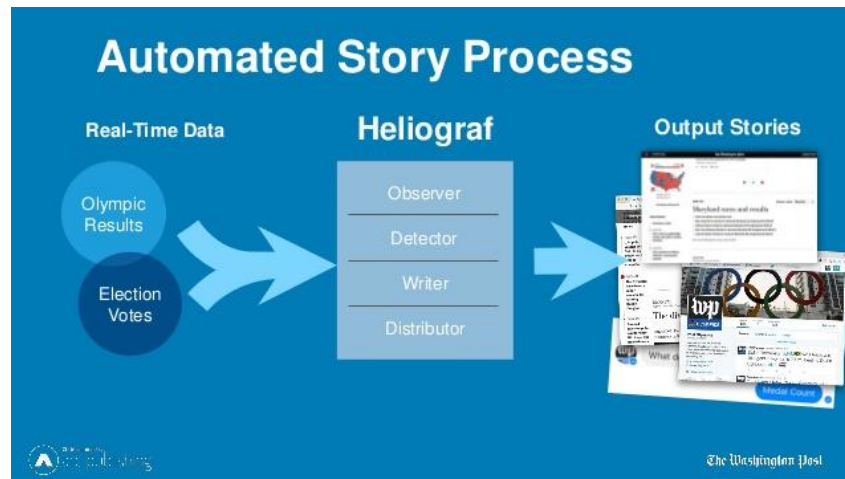
Heliograf

An Intelligent, Automated Storytelling Agent

- Automatic story generation from real-time data sources
- Delivery of channel-specific stories
- Personalized stories for readers



© The Washington Post



Key Takeaways for your Marketing Transformation

Advice for becoming a successful AI Marketer

AI for Marketing is more than a fad or mere hype--you need a plan

Follow the 5 step AI Marketing Canvas™

1. Organize your data so you are ready to AI in Marketing
2. Tap external vendors, let a thousand flowers blossom
3. Name a champion, expand efforts and begin to in-source.
4. Prepare to make your big bet. Build vs Buy
5. Turn your successful internal efforts into external platforms

Track your progress up these 5 levels, applied across customer journey

Don't forget the important legal, social and cultural issues!

Now is your "AI Moment of Truth"

AI in Marketing -- For your organization?

What stage is your organization at on the AI Canvas for Marketing?

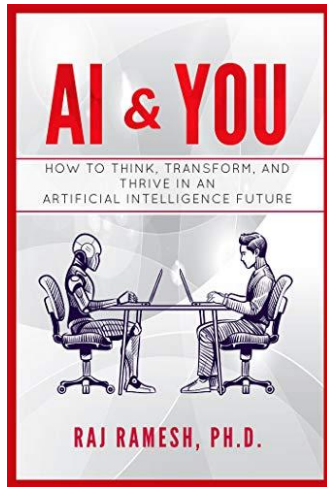
What is the first experiment you want to run in your organization?

What changes will be necessary to how you collect and analyze data about your customers?

What changes will be necessary to your team--talent, culture and process?

What major challenges, barriers to success do you anticipate?

AI in Marketing -- For yourself?



Artificial Intelligence and Machine Learning in Marketing: Live from MAICON

FREE Course

This course is an introduction to artificial intelligence and machine learning, including how they're defined, what distinguishes them from one another, how to apply them in marketing, and how to begin the conversation for piloting artificial intelligence.

Course Details:

- 4 lessons
- 15 videos
- 0 quizzes
- 1hr 30 minutes completion time

Microsoft

Think big picture with AI Business School

Unlock the potential of your people with our practical sessions and tools.

The banner features a dark background with glowing blue and purple lines representing data or neural networks. The Microsoft logo is in the top right corner.

deeplearning.ai

AI for Everyone

- Week 1: What is AI?
- Week 2: Building AI Projects
- Week 3: Building AI in your Company
- Week 4: AI and Society

The slide has a red background with the title 'AI for Everyone' in large white letters. Below the title are four colored boxes representing the course weeks: blue for 'What is AI?', orange for 'Building AI Projects', purple for 'Building AI in your Company', and green for 'AI and Society'.

<https://www.amazon.com/AI-You-Transform-Artificial-Intelligence-ebook/dp/B07T4KDZH>

<https://academy.hubspot.com/courses/artificial-intelligence-and-machine-learning-in-marketing>

<https://www.microsoft.com/en-us/ai/ai-business-school>

<https://www.deeplearning.ai/ai-for-everyone/>
<https://towardsdatascience.com/ai-for-everyone-course-review-key-takeaways-177be96330fe>

Good Luck on your journey
to transform & deploy AI in Marketing

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