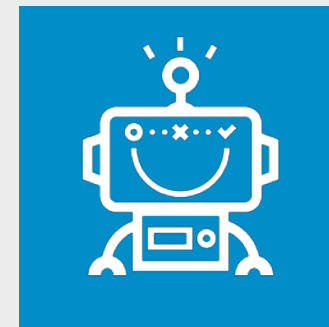


blackbaud®

Big Data, AI & Unicorns



Steve MacLaughlin

Vice President, Data & Analytics – Blackbaud
Senior Advisor, Blackbaud Institute for Philanthropic Impact



Steve MacLaughlin
VP, Data & Analytics
Blackbaud



20
YEARS

Leading technology
initiatives with a broad
range of Fortune 500,
government and
educational institutions,
and not-for-profit
organizations across
the world

@SMacLaughlin



The New York Times



WSJ

Stanford SOCIAL
INNOVATION REVIEW



USA TODAY



FINANCIAL
TIMES

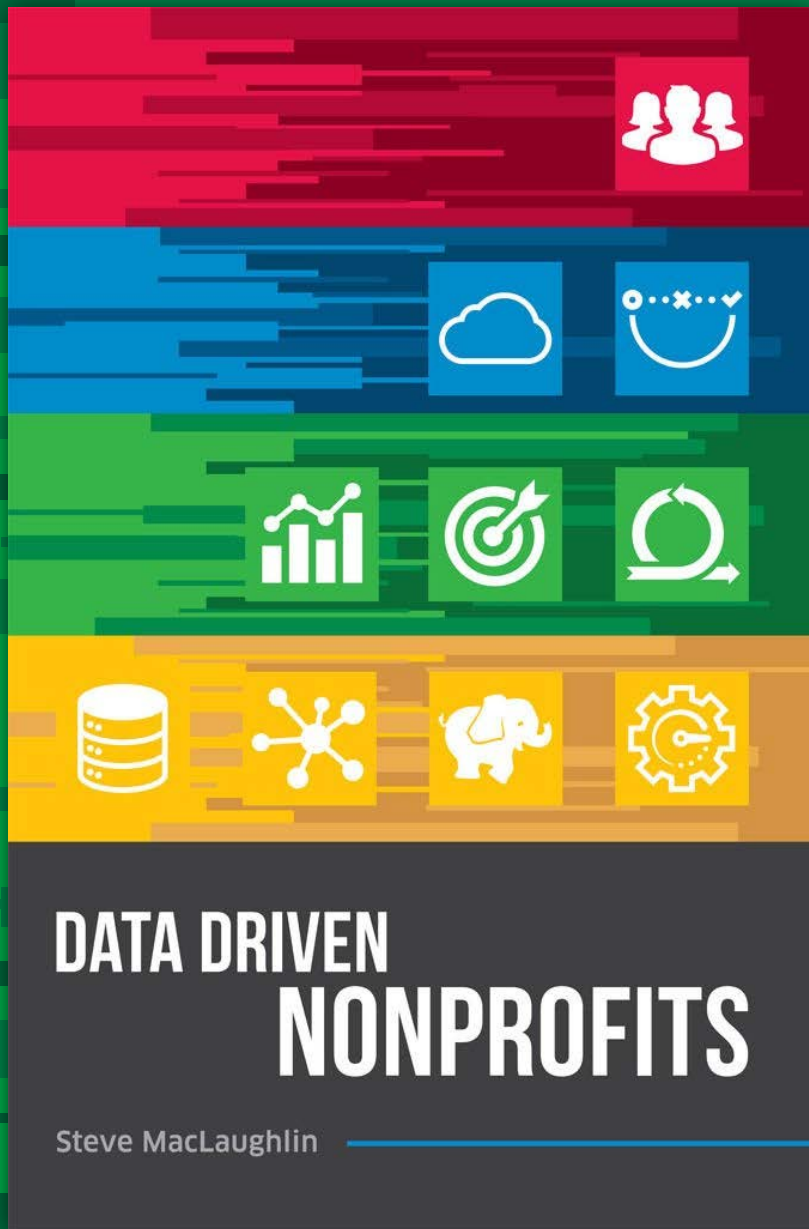
The Washington Post



Nonprofit
Technology
Network

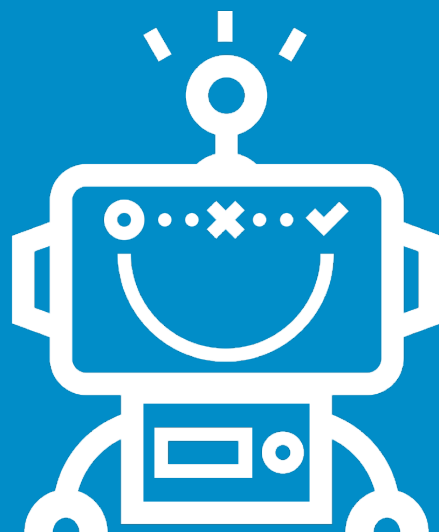
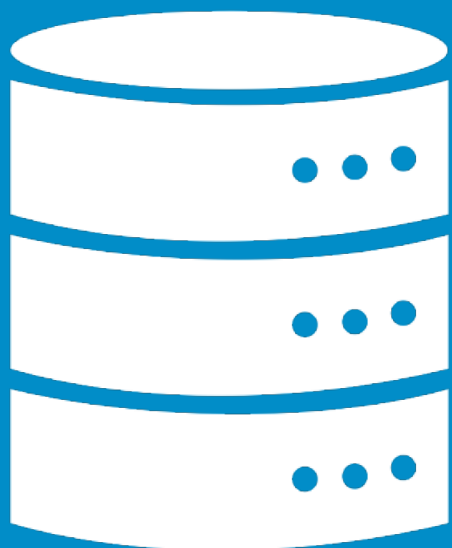


#1 Best Seller



#1 Best Seller

in Nonprofit Organizations & Charities



Basile Bouchon

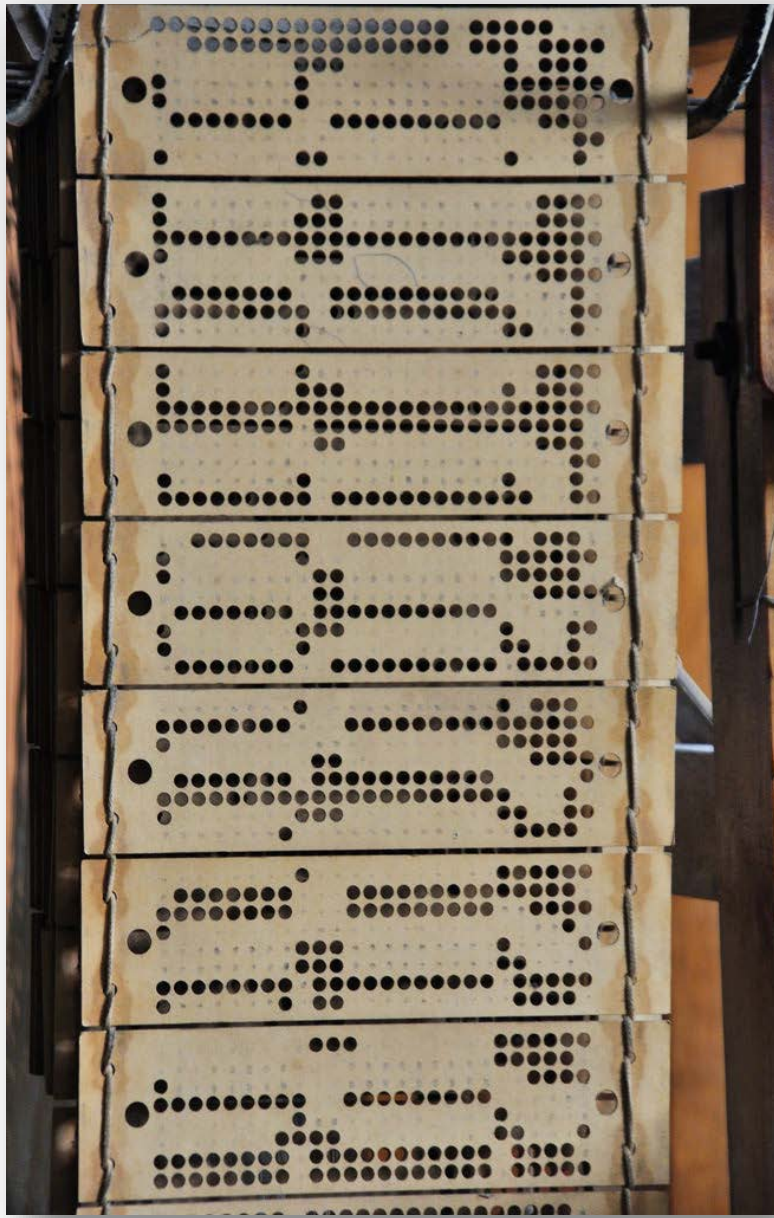
1725

Basile Bouchon, the son of an organ maker, invented a way to control a loom with a perforated paper tape.

In 1728, one of Bouchon's assistants, Jean-Baptiste Falcon experimented with looms that were semi-automated with a series of perforated punched cards.

In 1741, French inventor Jacques de Vaucanson furthered improved on the design and simplified the mechanism into a automated machine.

In 1801, Joseph Marie Jacquard, a French weaver and merchant improved on the previous three designs.



Herman Hollerith



1888

Herman Hollerith's use of punch cards earns him the contract to process and tabulate 1890 U.S. census data.

1896

Herman Hollerith forms the Tabulating Machine Company – later renamed the Computer Tabulating Recording Company.

In 1924, the company changed its name again to the International Business Machines Corporation.

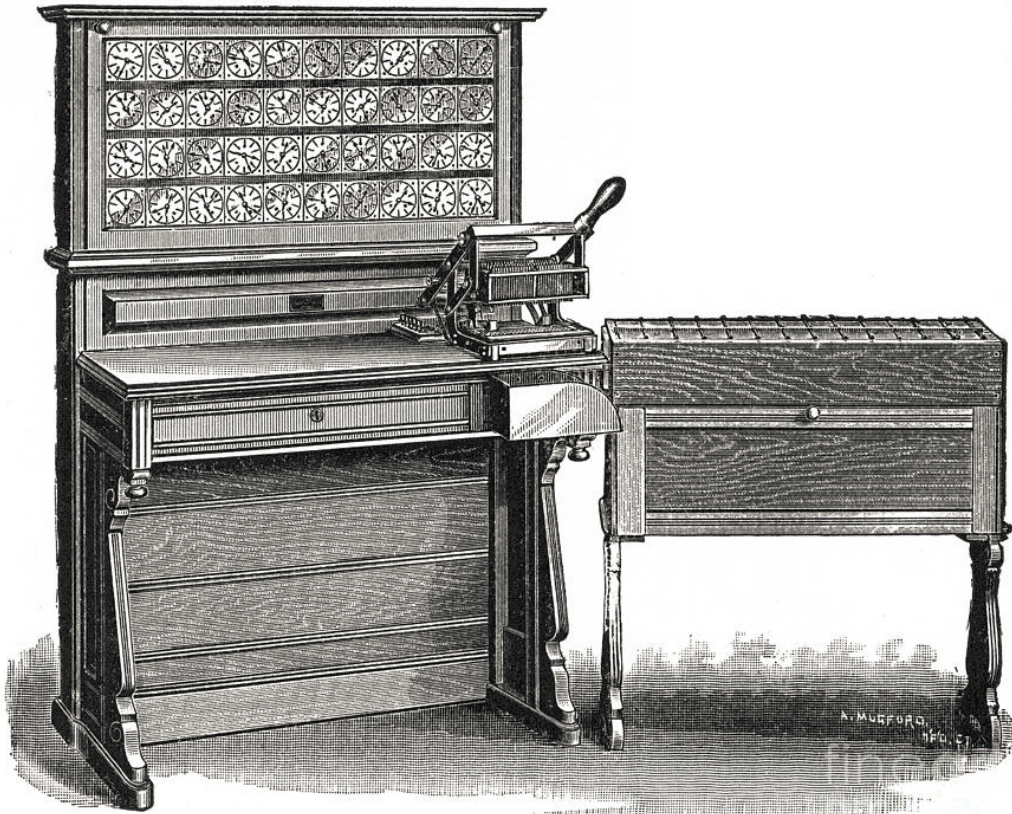


FIG. 5.—The Hollerith electric tabulating machine.

1954

The Georgetown–IBM experiment was an influential demonstration of machine translation using punch cards.

Developed jointly by the Georgetown University and IBM, the experiment involved completely automatic translation of more than sixty Russian sentences into English.

Georgetown University IBM Experiment



“Mi pyerydayem mislyi posryedstvom ryechi.”

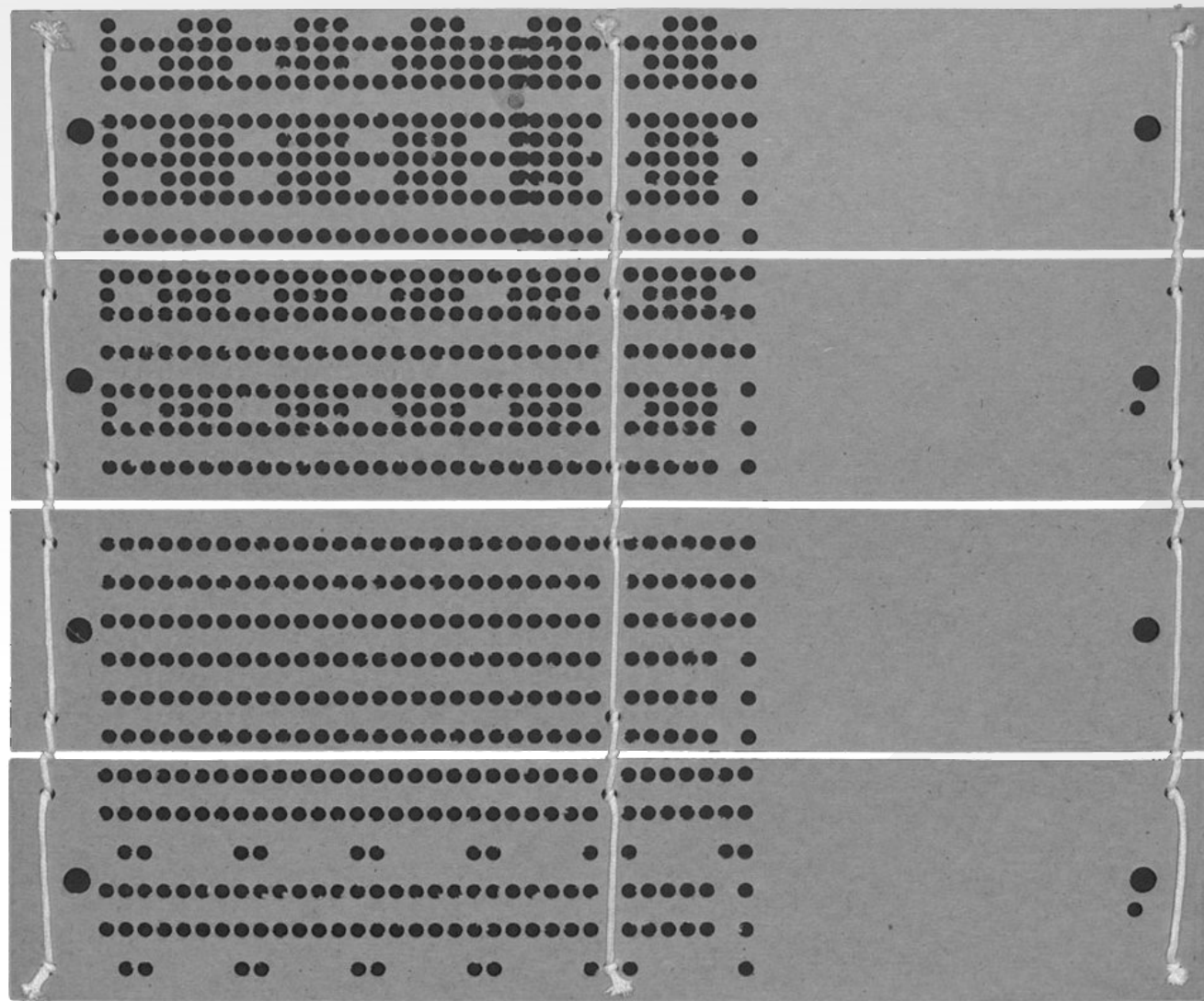
“Mi pyerydayem mislyi posryedstvom ryechi.”

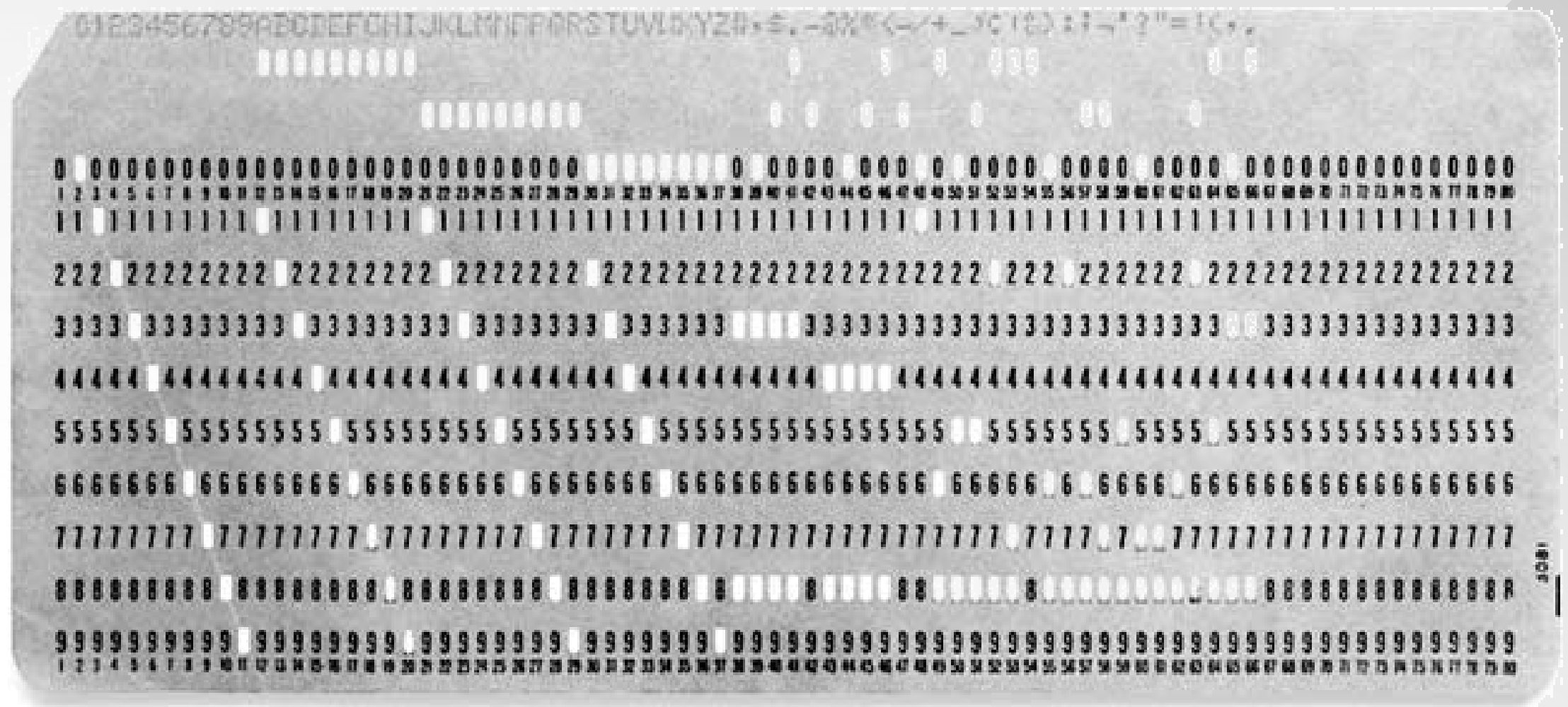
“We transmit thoughts by means of speech.”

“The spirit is willing but the flesh is weak.”

“The spirit is willing but the flesh is weak.”

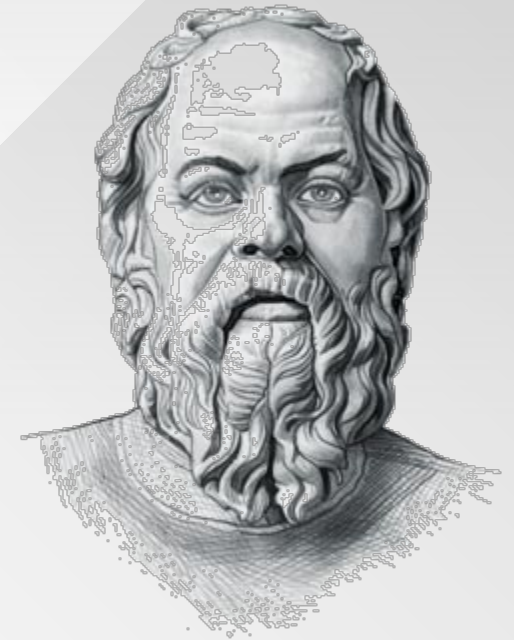
“The vodka is good but the meat is rotten.”





**“The beginning of wisdom is
the definition of terms.”**

- Socrates



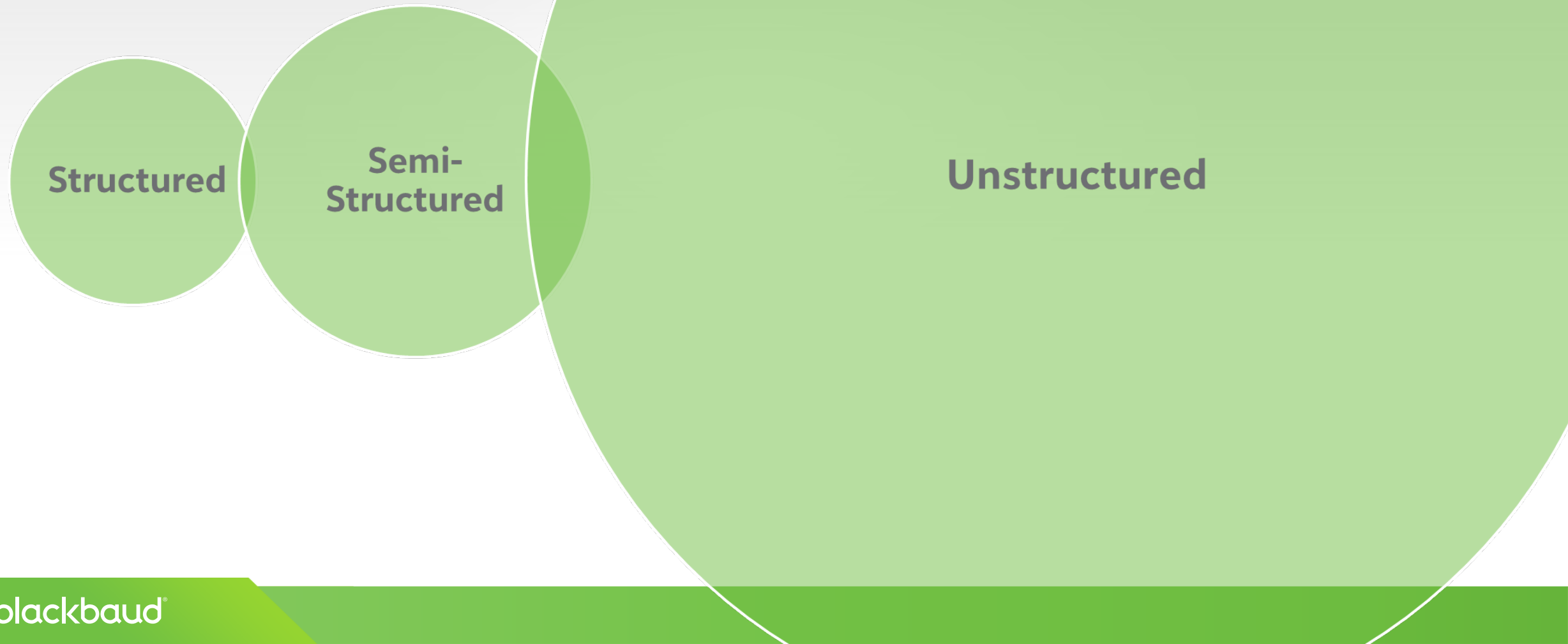
#BIGDATA



big da·ta

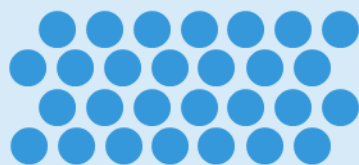
noun, (used with a singular or plural verb)

1. Big data is a term describing the storage and analysis of structured, semi-structured, and unstructured data.
2. The use of analytics to extract value from data regardless of the size of the data set.
3. The analysis of complex data sets using a series of techniques including, but not limited to: Hadoop, NoSQL, MapReduce, Hive and Machine Learning.





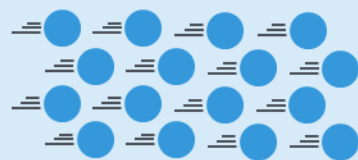
VOLUME



Data at Scale

Terabytes to
petabytes of existing
data to process

VELOCITY



Data in Motion

Analysis of streaming
data to enable
decisions very quickly

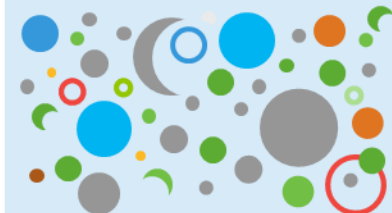
VARIETY



Data in Many Forms

Structured data,
unstructured data,
text, multimedia

VERACITY



Data Uncertainty

Managing the reliability
and predictability of
inherently imprecise data

**IT'S NOT ABOUT
THE VOLUME
OF THE DATA.
IT'S ABOUT
THE VALUE.**

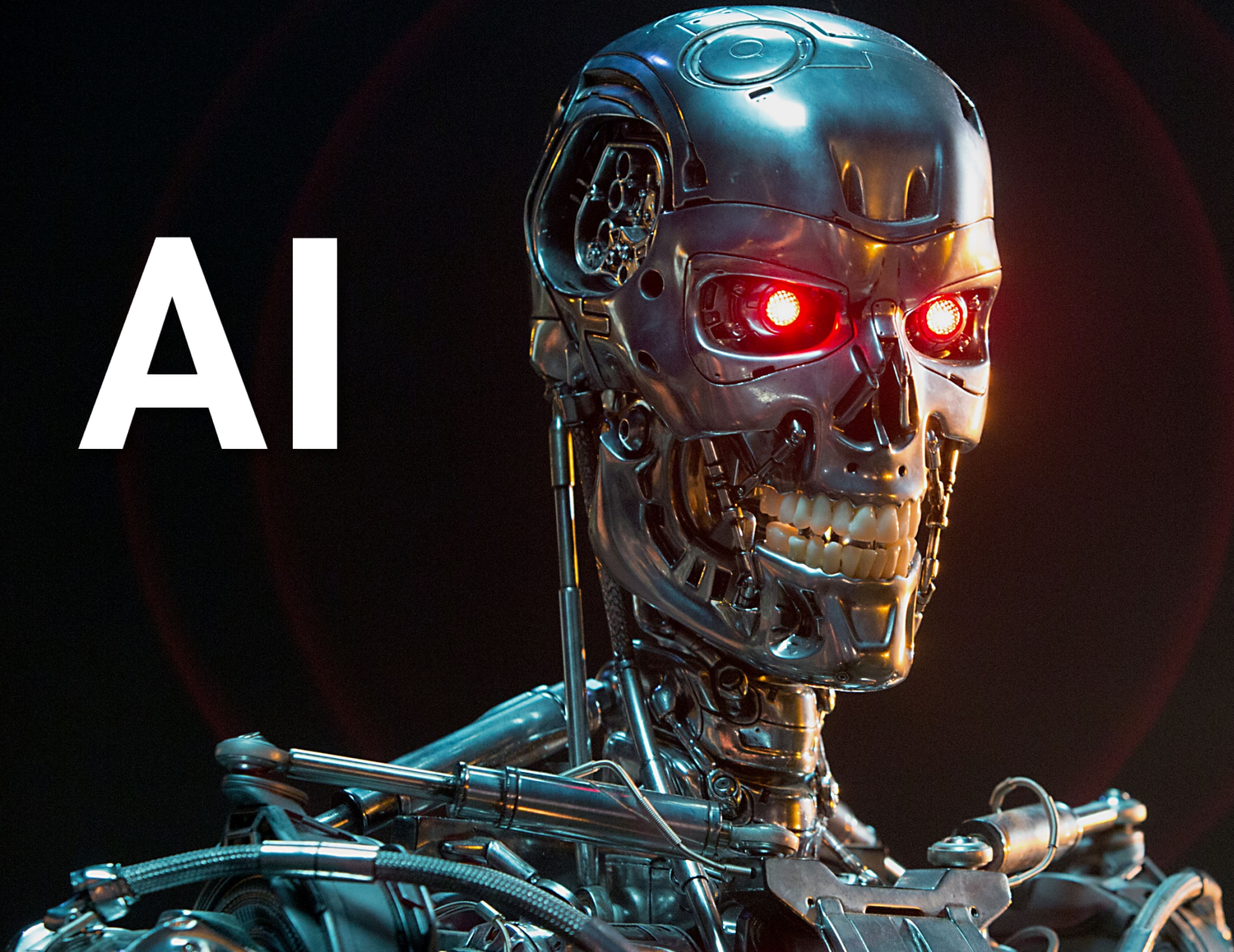


Steven MacLaughlin
Steve MacGlaughlin
Steve MacLauchlin
Steve MacLaughlan
Steve McLaughlin
Steve MacLoughlin

 **10% decrease in retention**

 **12% decrease in giving**

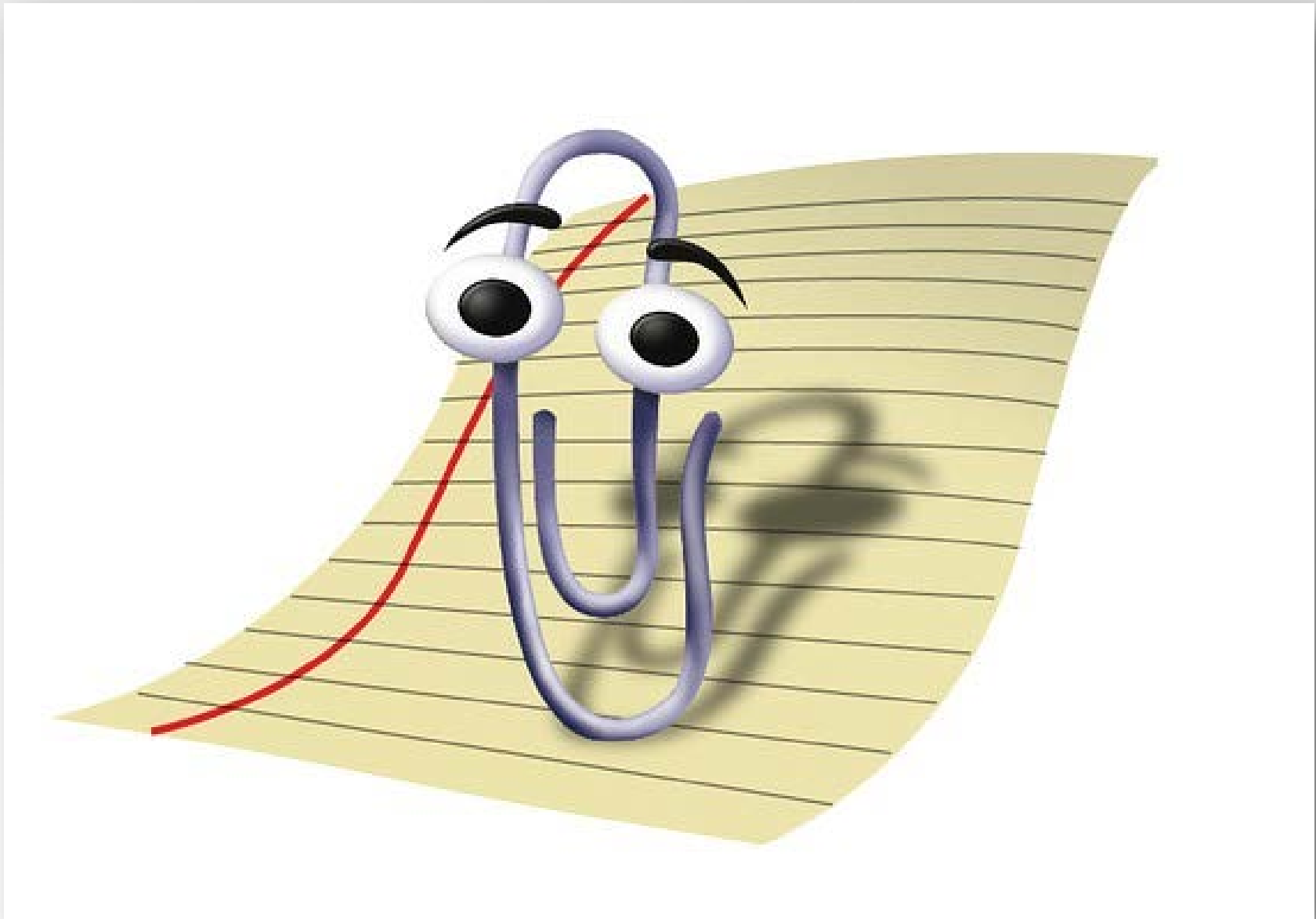
AI

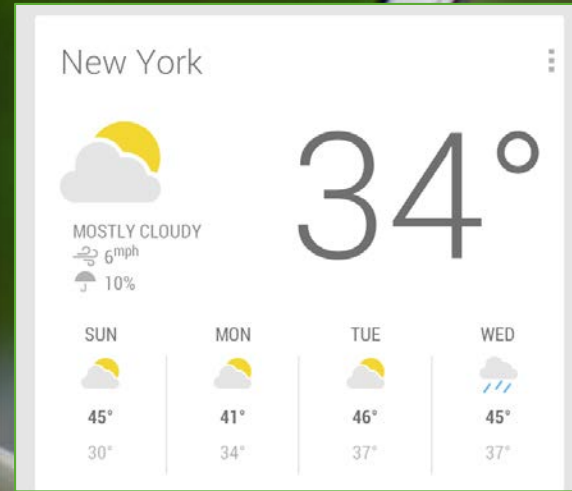
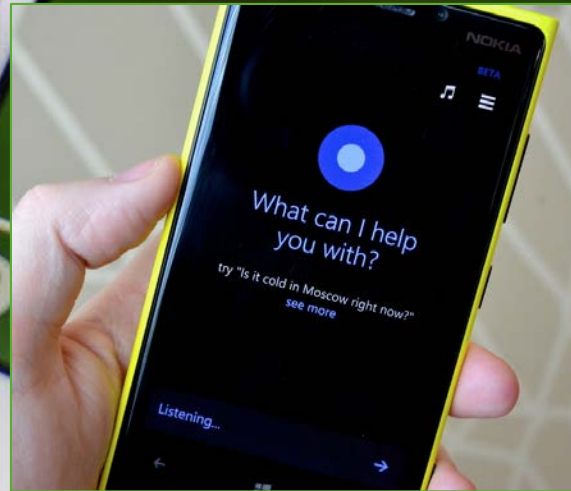
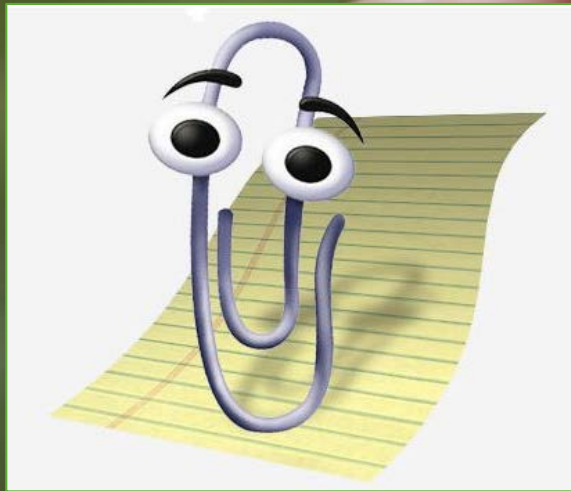


ar·ti·fi·cial in·tel·li·gence

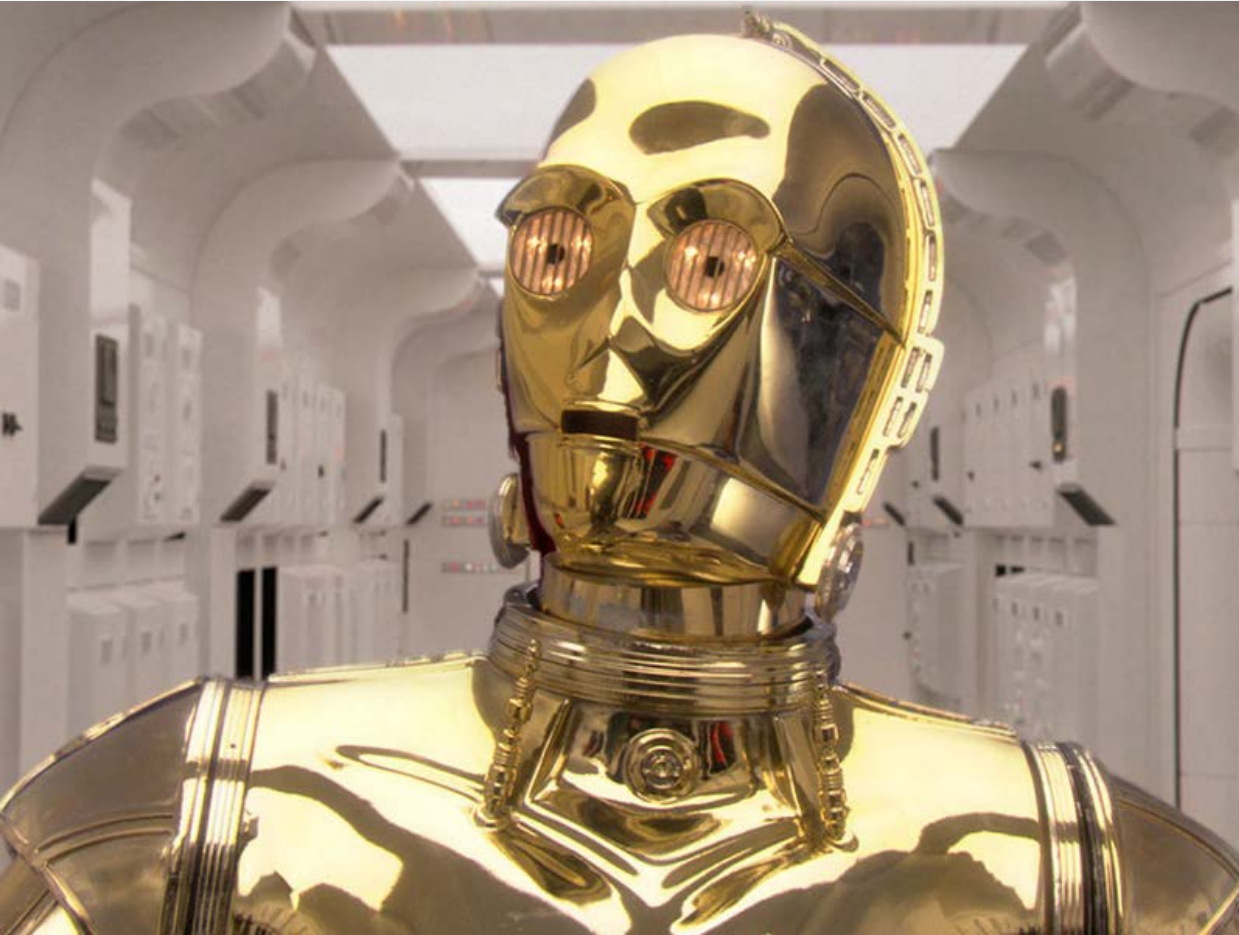
noun

1. The theory and development of computer systems able to perform tasks that normally require human intelligence.
2. Artificial Intelligence enables machines to process information and learn from data.





Strong AI



Weak AI





Home

Fundraising ▾

Lists ▾

Control Panel ▾

Analysis (Beta) ▾

Open database view

Work Center for all 27 fundraisers [Change fundraiser](#)

Overview

Portfolio 638

Gifts 3,669

Actions 169

Opportunities 67

Unassigned 11k

Needs attention

Simms
St Ste 100
SC 29403-6322
2111

No contact

← of the pledge and
ll fulfill their

Dismiss

JK Jennifer Kennick
4850 Scenic Court
Baltimore, MD 21224
(410) 555-6671

Higher giving potential

Lapsed donor [See more](#)

Recommendation
Review the donor's record to determine whether
to re-engage them or focus on others.

Add action Dismiss

Robert Hernandez
1953 N Hudson Ave.
Chicago, IL 60610
(817) 624-1234

Overdue pledge Recent gift

[See more](#)

Recommendation
Gently remind the donor of the pledge and
determine whether they'll fulfill their
commitment.

Add action Dismiss

Brian Pompa
1415 Robinson Lane
Columbus, OH 43215

Higher giving potential

At risk donor [See more](#)

Recommendation
To re-engage the donor, reach out with a
friendly interaction.

Add action Dismiss

BJ Bruce J
133 Sand I
Charleston
(843) 555-

Overdue pledge

Higher giving potential [See more](#)

Recommendation
To re-engage the donor,
see which campaigns fit

Add action

[View all constituents with tags](#)

Portfolio



Updated 70 minutes ago

638

Assigned

13

At risk

10

Newly assigned

Actions



137

Past due

4

Upcoming

2

Completed

WHERE ARE WE GOING






► VISUAL / SPATIAL INTELLIGENCE

clarifai [Demo](#) [Solutions](#) [Pricing](#) [Developer API](#) [Resources](#)

[GENERAL](#) [FACE](#) [NSFW](#) [COLOR](#) [MORE MODELS](#)



General [VIEW DOCS](#)

LANGUAGE


English (en)

PREDICTED CONCEPT	PROBABILITY
child	0.998
education	0.968
people	0.945
creativity	0.944
school	0.940
boy	0.923
cute	0.909
concentration	0.906
painting	0.901
room	0.896

➤ VISUAL / SPATIAL INTELLIGENCE

clarifai Demo Solutions ▾ Pricing Developer API Resources ▾

GENERAL FACE NSFW COLOR MORE MODELS ▾

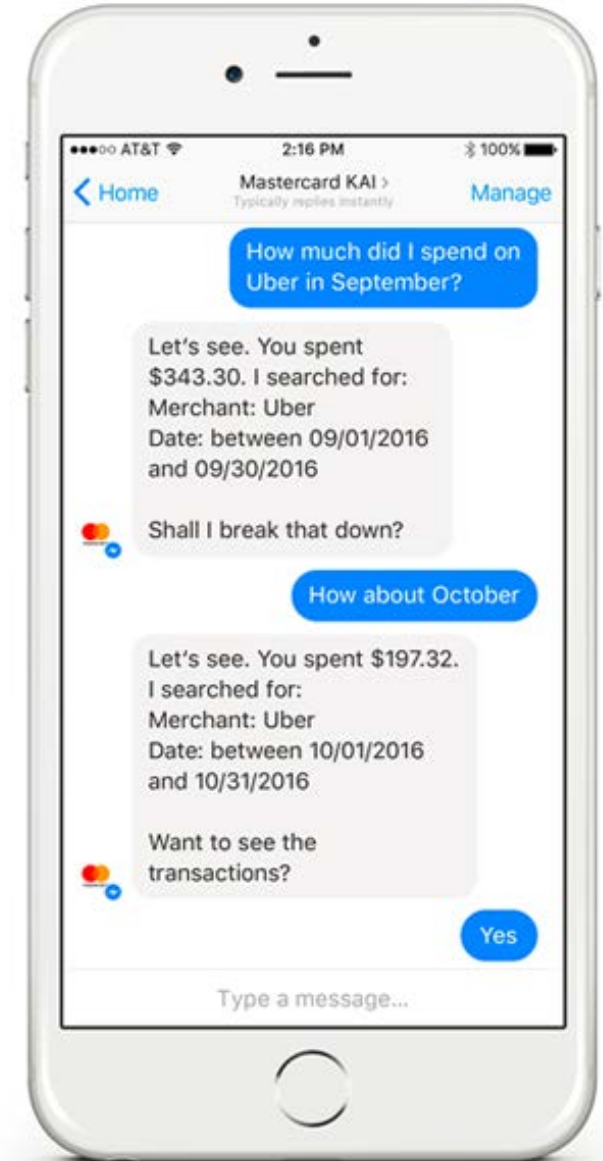
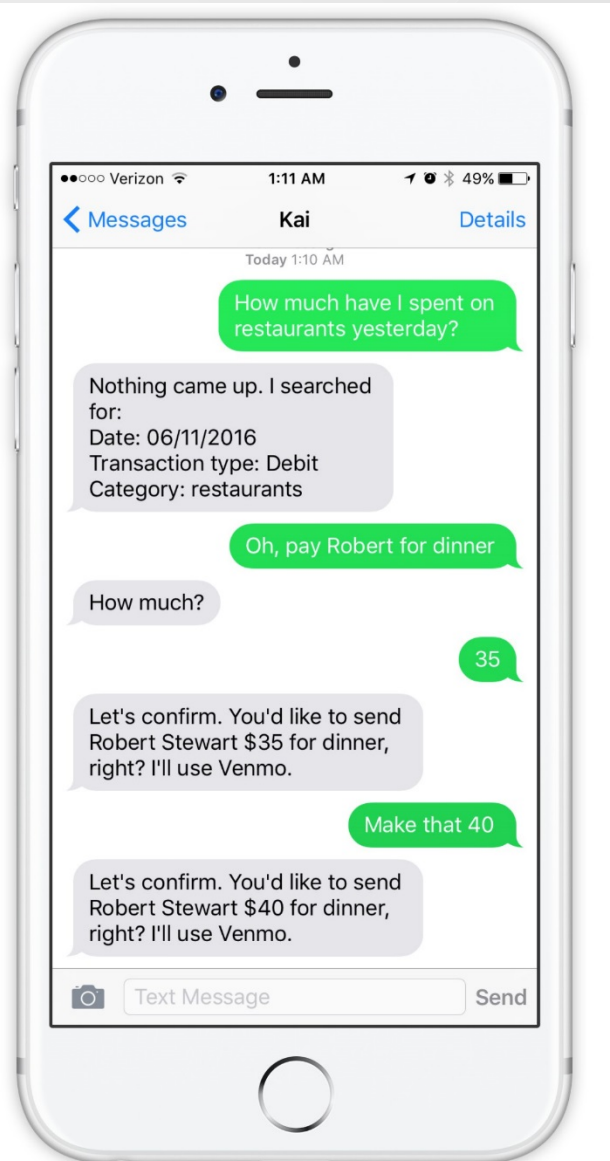
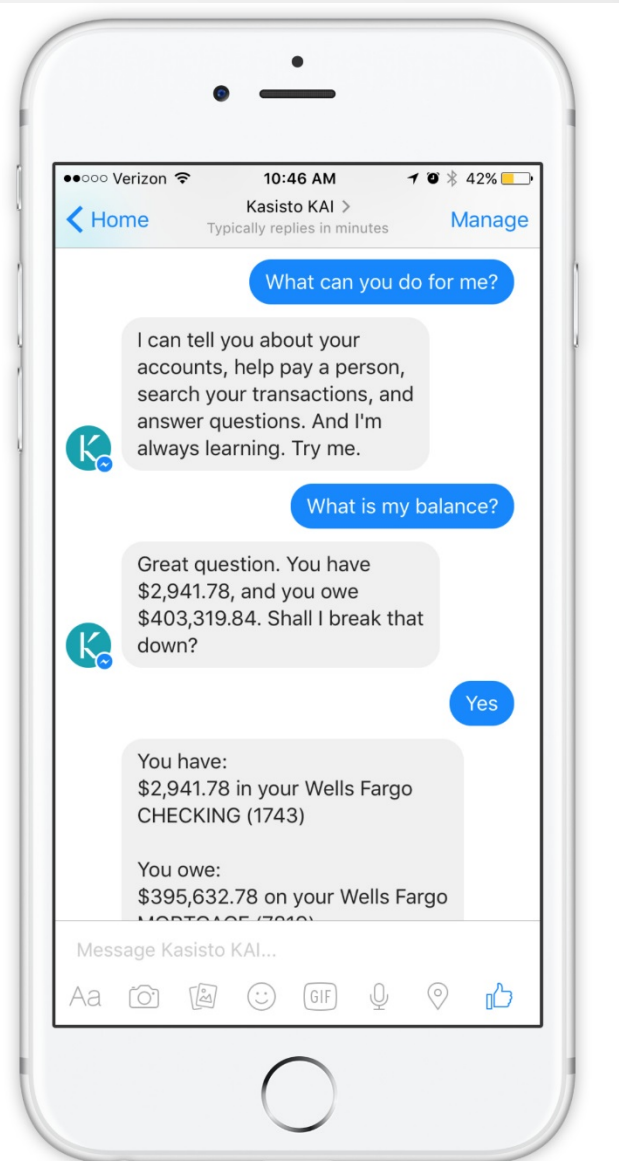


General

LANGUAGE
English (en) ▾

PREDICTED CONCEPT	PROBABILITY
race	0.999
vehicle	0.998
competition	0.996
auto racing	0.991
transportation system	0.986
track	0.976
championship	0.975
car	0.969
action	0.965
wheel	0.958

► VERBAL / LINGUISTIC INTELLIGENCE



LEVELS OF MATURITY





ART

A full-page background image featuring a clear night sky with the Milky Way galaxy visible as a bright, star-filled band across the upper half. Below the sky, a rugged mountain range is covered in a thick layer of snow, with some dark evergreen trees scattered across the slopes and in the foreground. The overall scene is dark and atmospheric, with the white text 'SCIENCE' providing a strong contrast.

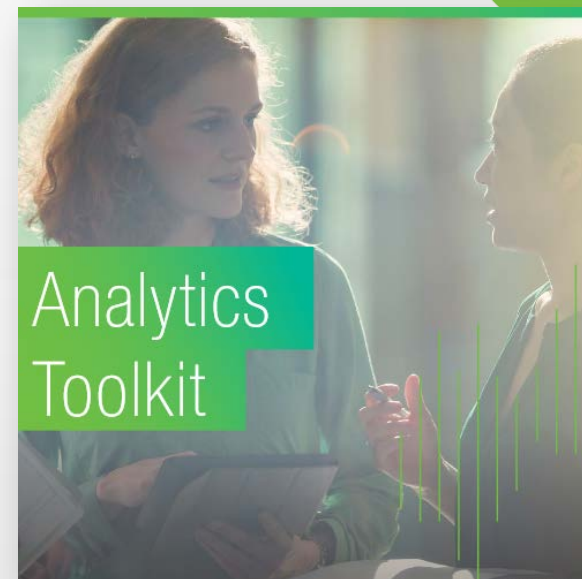
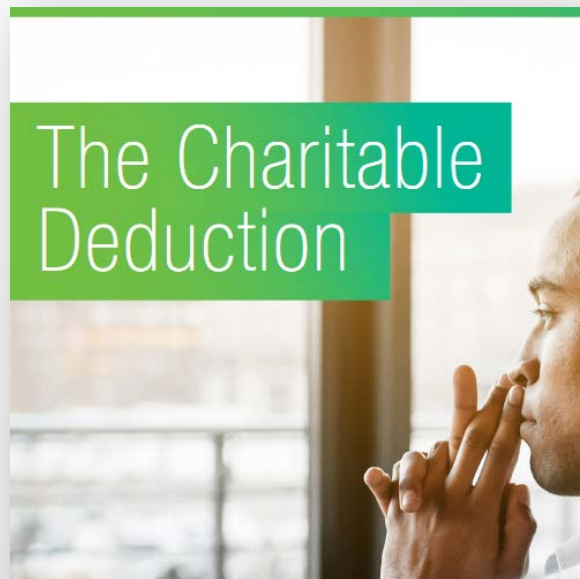
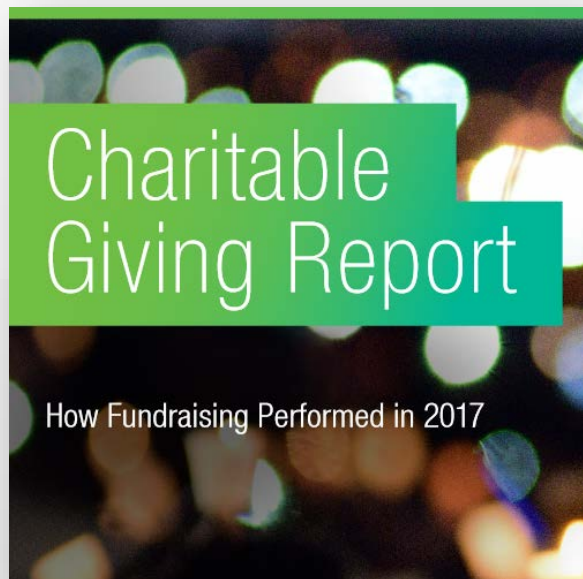
SCIENCE

**FUNDRAISING IS AN
ART & SCIENCE**

The background of the image is a reproduction of the painting 'The Starry Night' by the English Romantic painter J.M.W. Turner. The painting depicts a night scene with a dark, turbulent sky filled with swirling clouds and numerous bright, star-like points of light. The lower portion of the painting shows a dark, silhouetted landscape with a few buildings and a body of water reflecting the light from the sky. The overall style is characterized by visible, expressive brushstrokes and a rich, dark color palette dominated by blues, blacks, and yellows.

**WITHOUT SCIENCE,
THERE CAN
BE NO ART.**

LEVEL UP



www.BlackbaudInstitute.com

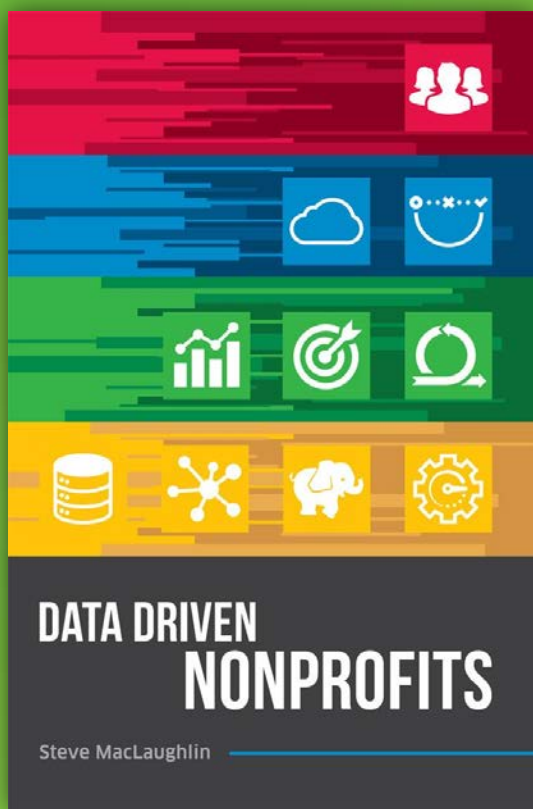
LEVEL UP



nofilternonprofit.blackbaud.com

datadrivennonprofits.com





THANK YOU

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VP, Data & Analytics
Blackbaud

@ steve.maclaughlin@blackbaud.com
SMacLaughlin

#1 Best Seller

in Nonprofit Organizations & Charities