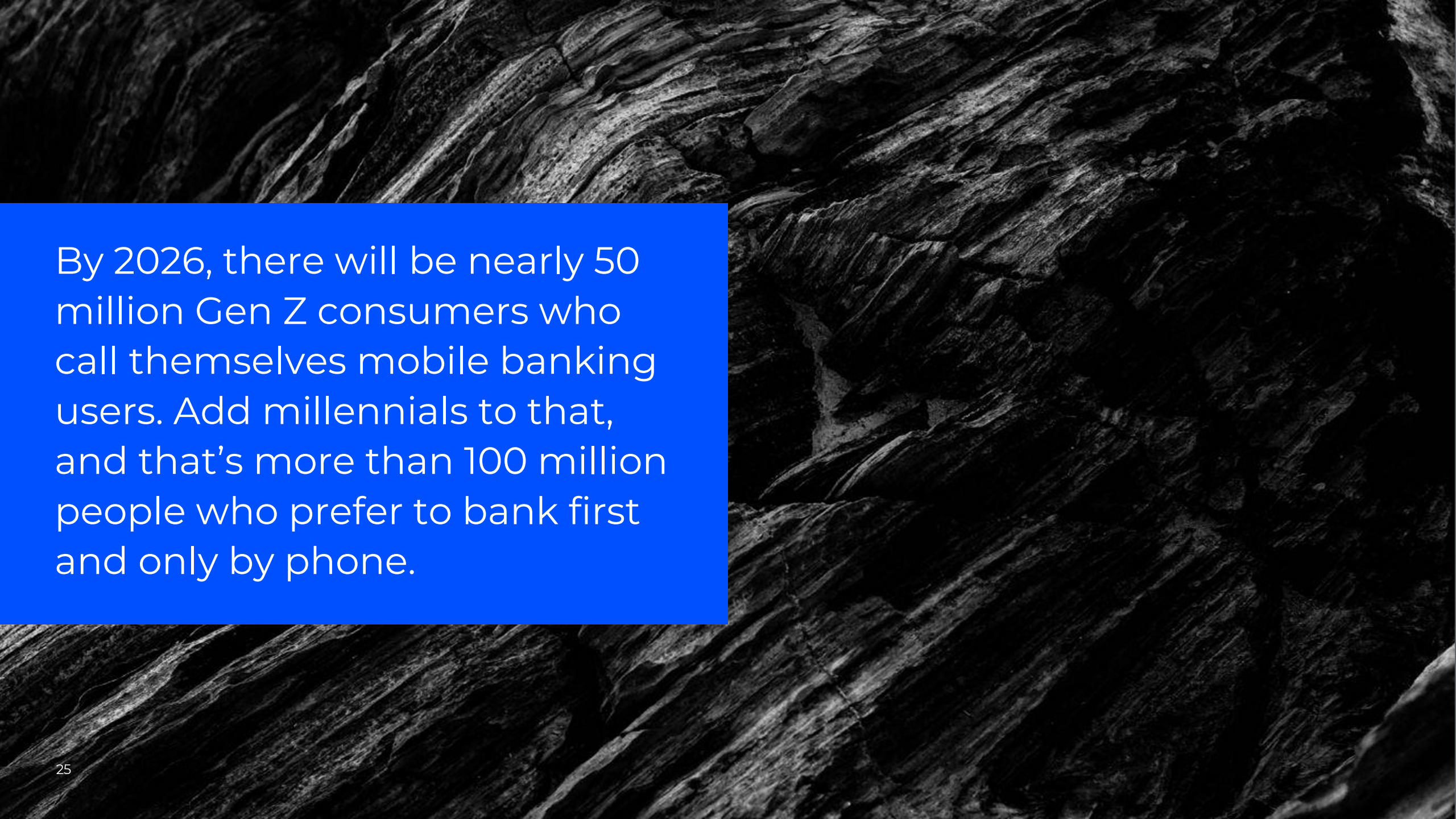
Where AI really stands out is its impact on personalization throughout the financial customer’s journey.

Just 26% of consumers say their banks have done any meaningful personalization in the digital space. This is creating huge opportunities for disruptors who can quickly take advantage of generative AI.



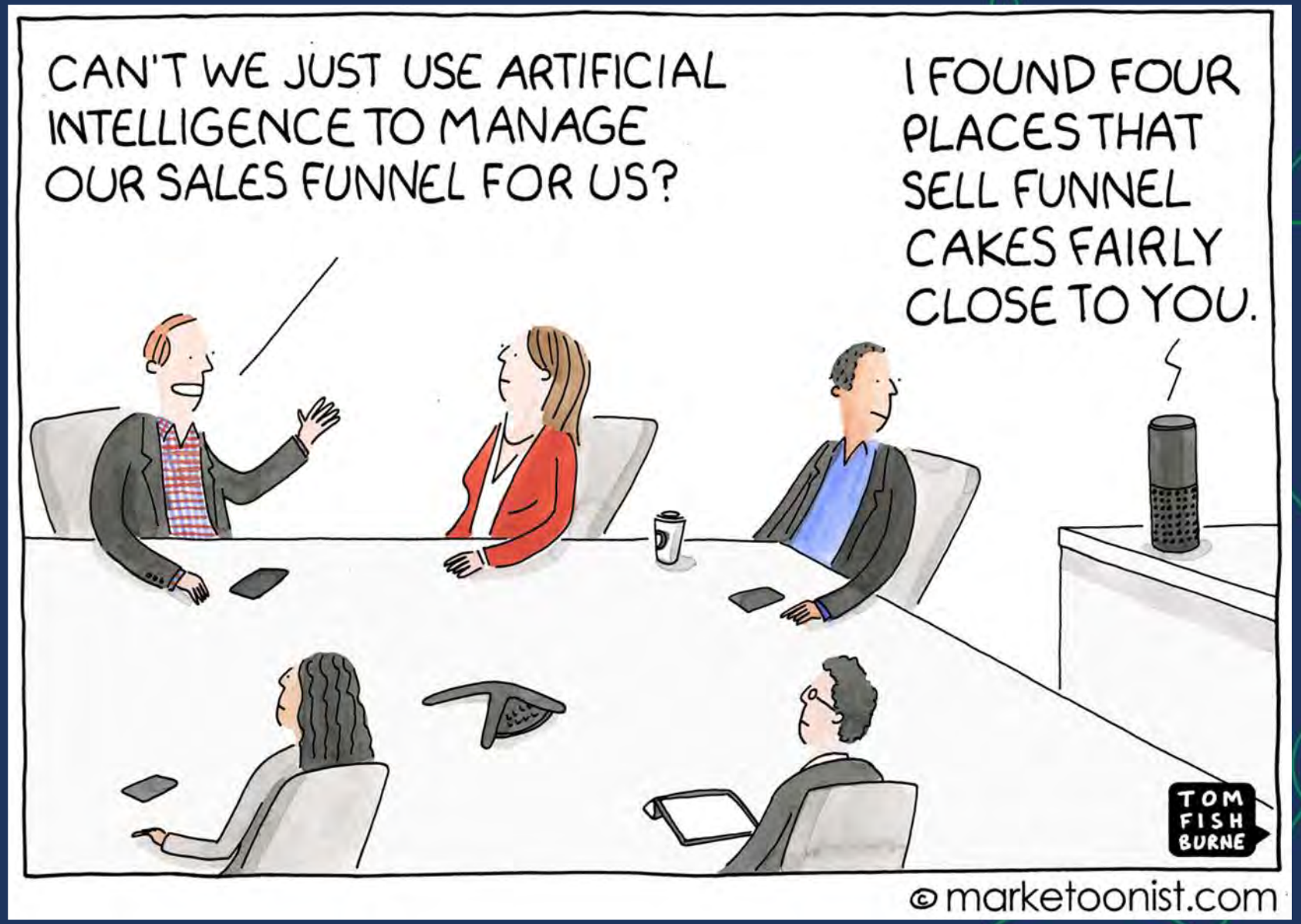
By 2026, there will be nearly 50 million Gen Z consumers who call themselves mobile banking users. Add millennials to that, and that’s more than 100 million people who prefer to bank first and only by phone.

”We need banking, but we don’t need banks anymore.”
–Bill Gates

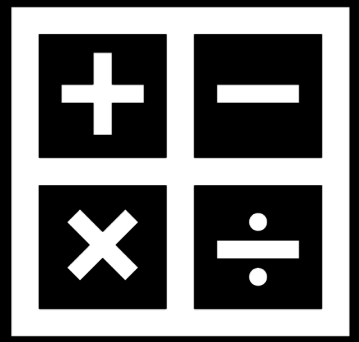
03

Practical AI and ML

Let’s explore Artificial (AI) & Machine Learning (ML)


CAN'T WE JUST USE ARTIFICIAL INTELLIGENCE TO MANAGE OUR SALES FUNNEL FOR US?
I FOUND FOUR PLACES THAT SELL FUNNEL CAKES FAIRLY CLOSE TO YOU.
TOM FISH BURNE
© marketoonist.com

The purpose of any kind of AI & ML is *to improve upon our guesses*



When we improve upon our guesses,
we use our time, people, and resources
wisely.

*

AI and ML problems start with a question

Typical questions that ML may help solve

yes or no

Will the member churn in 90 days?

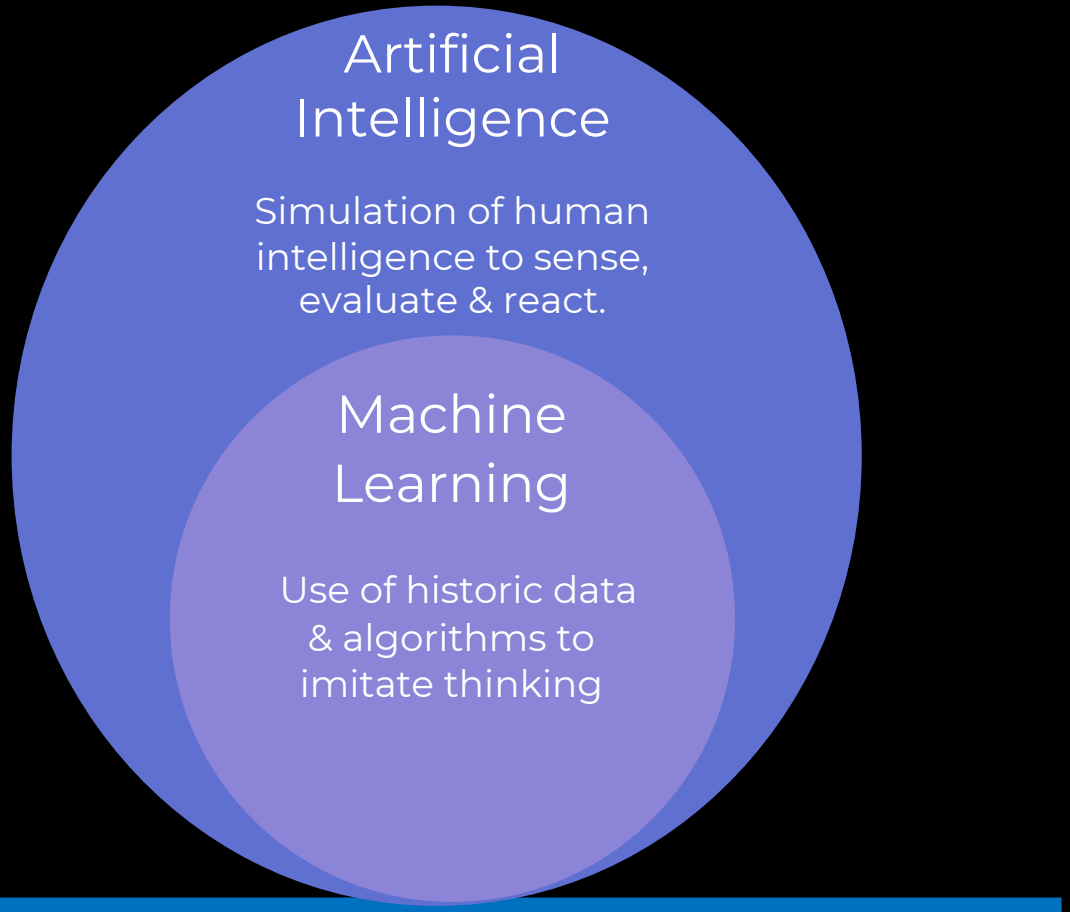
numerical

What is our projected revenue from this member campaign?

categorical

Which membership level produces the highest lifetime value?

How are AI, ML & Data Science related?



Data Science

Skills and practices across programming, model development, math and statistical, engineering and domain knowledge to create insights from data.

Data

-99.6273	-99.1219	-99.6273	-99.6273	-98.1112	-99.1219	-9
-99.6273	-99.6273	-99.1219	-99.1219	-99.6273	-98.6166	-9
-99.6273	-99.6273	-99.6273	-99.6273	-99.1219	-97.6058	-9
-99.6273	-99.6273	-99.6273	-96.5951	-99.6273	-99.6273	-9
-97.6058	-98.6166	-97.6058	-98.1112	-99.6273	-98.1112	-9
-98.1112	-99.6273	-99.6273	-98.6166	-97.1004	-99.1219	-9
-96.5951	-99.6273	-99.6273	-98.1112	-99.6273	-98.1112	-9
-99.6273	-99.6273	-97.6058	-99.6273	-99.6273	-99.6273	-9
-99.6273	-98.1112	-99.1219	-99.6273	-99.6273	-99.6273	-9
-99.6273	-99.6273	-99.6273	-99.6273	-99.6273	-99.6273	-9
-99.6273	-96.0897	-99.6273	-99.1219	-98.6166	-99.6273	-9
-97.6058	-99.1219	-98.1112	-99.1219	-99.6273	-99.1219	-9
-99.6273	-97.6058	-99.6273	-98.1112	-99.6273	-98.6166	-9
-99.6273	-99.1219	-99.6273	-99.6273	-97.1004	-99.6273	-9
-99.6273	-97.6058	-99.1219	-99.6273	-99.1219	-99.6273	-9
-96.5951	-98.1112	-99.6273	-99.6273	-99.1219	-99.6273	-9
-97.6058	-99.1219	-99.6273	-99.1219	-99.6273	-99.6273	-9
-99.6273	-99.6273	-99.6273	-99.1219	-99.1219	-98.6166	-9
-99.1219	-99.1219	-99.6273	-99.6273	-99.6273	-97.6058	-9

Algorithms

$$\theta_1 := \theta_1 - \alpha \frac{1}{m} \sum_{i=1}^{m} (h_\theta(x^{(i)}) - y^{(i)}) x^{(i)}$$

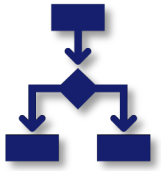
Predictions

.....MATH!

Essential Ingredients needed to solve problems using AI & ML

Problem Statement

Defined Data



Models

Skill

Performance Measures

Business Intelligence

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Let’s start with an ML example from Wipfli

Use Case: How can we reduce employee turnover?

- Goal: Reduce Regrettable Turnover by 1%
- Our associates are valuable to us! We want to retain them, most certainly those who are our highest performers.

Examples of variables used in our analysis

Microsoft Workplace Analytics (WpA)

Collaboration Hours

External Network Size

Internal Network Size

Workweek Span

Meeting Hours with Manager one-on-one

Time off Hours Over Time

Does not include PTO payout hours

Total Timecard Hours

Time self-reported on timesheet

Pay Rate

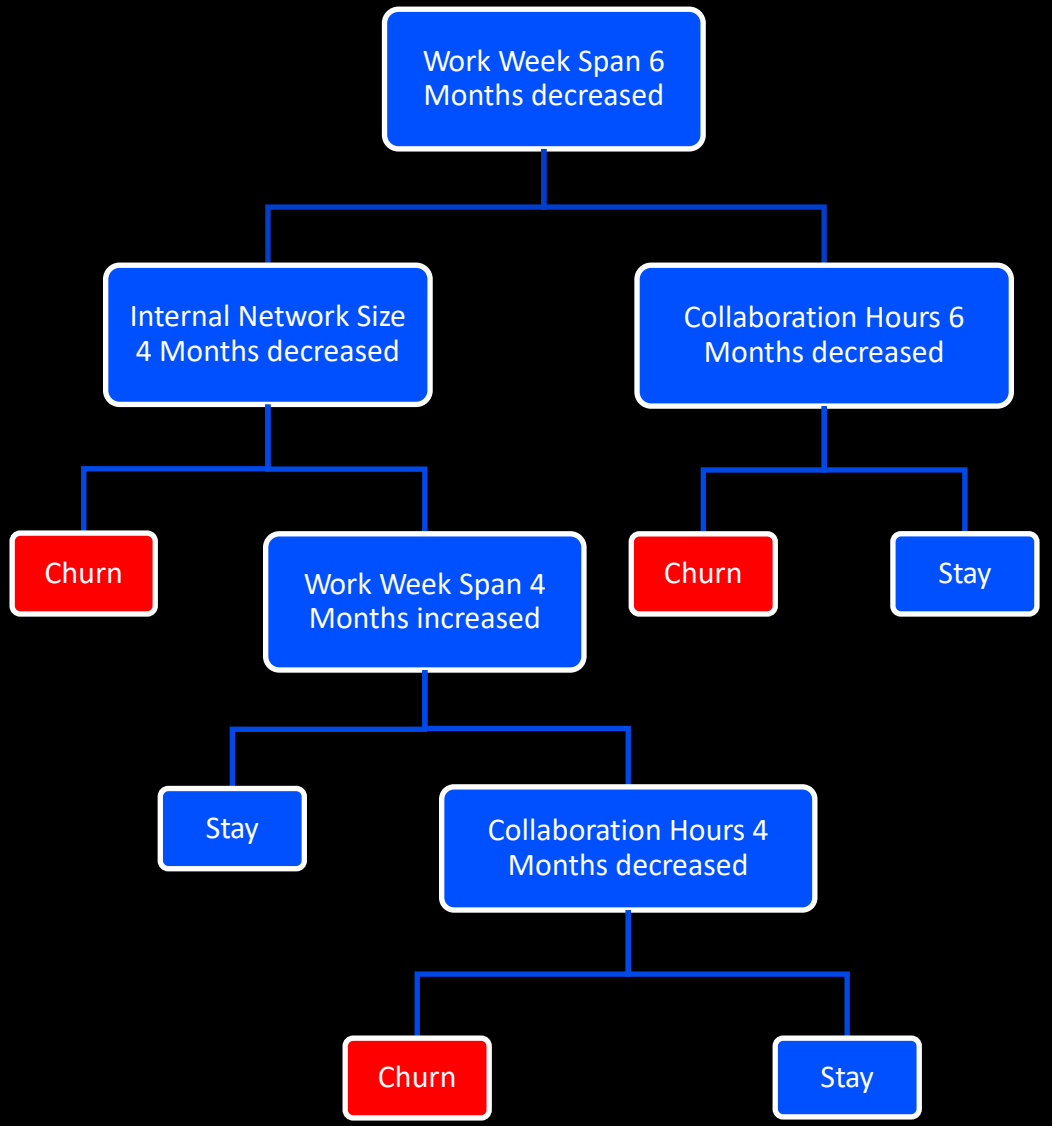
Annual salary or

Hourly pay multiplied by annual billable hours goal

Personal Development Hours & Types of Courses

Internal Leadership courses, etc.

We could see that something is happening 6 - 4 months before someone leaves Wipfli



Who hasn’t heard of ChatGPT?!

What is GPT (Generative Pre-trained Transformer)?

Large Language Model	→	Generative AI
Neural Network	→	Simulator
Text predictor	→	Content generator
Agent	→	Transformer
Chatbot	→	Writing assistant

Let’s build an “auto-complete” model

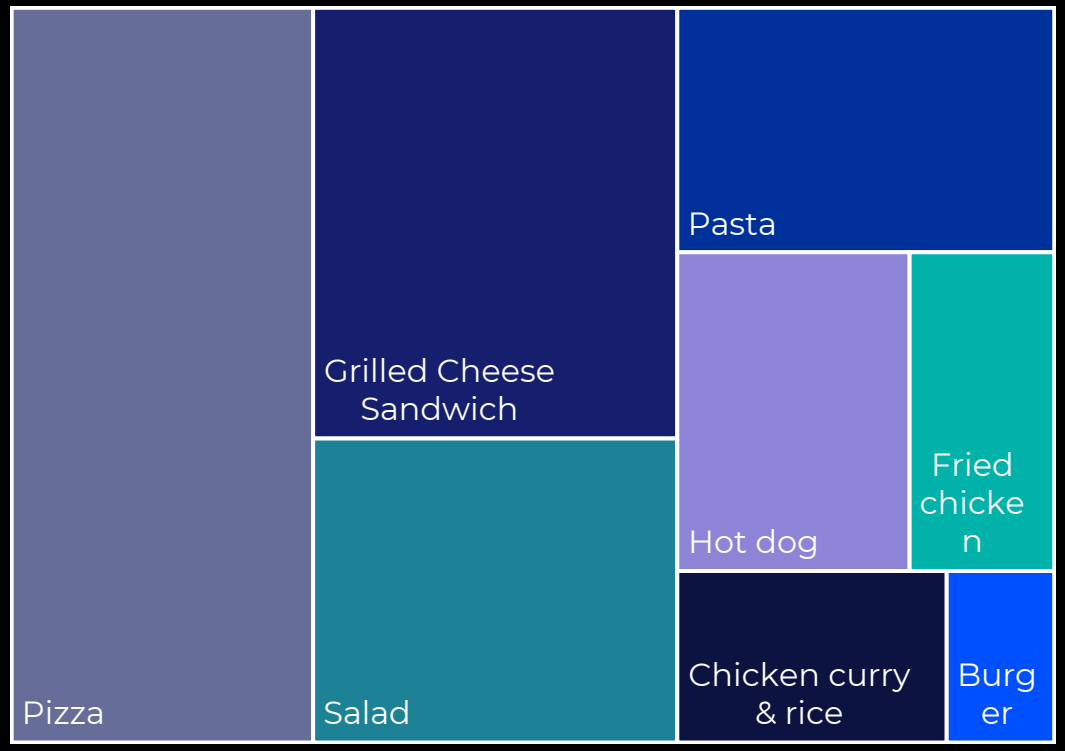
“I want to eat _____”

Behind the scenes, our GPT looks for the most likely answer based upon historical answers to that question

I want to eat pizza

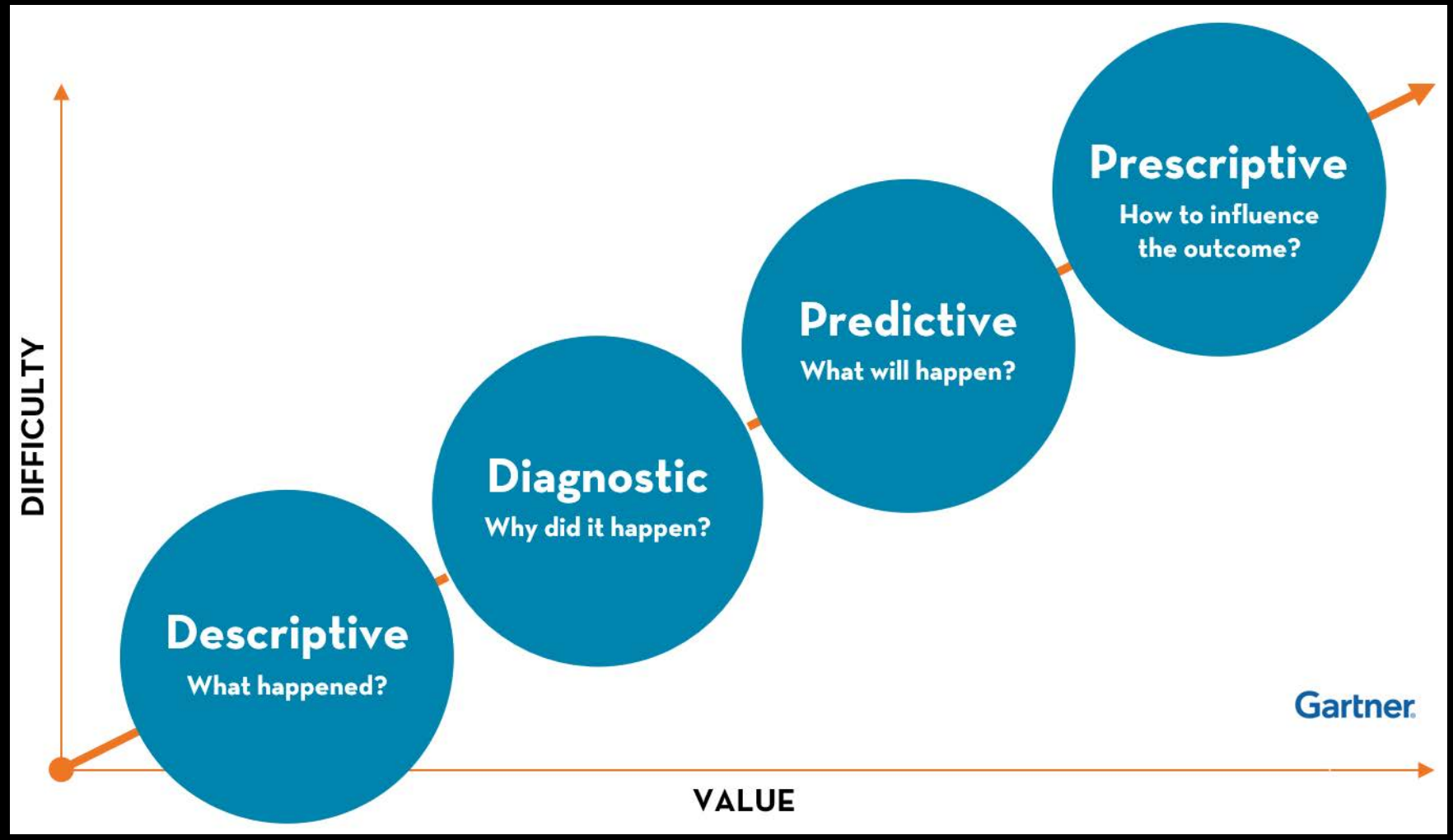
Transformer

Text Predictor



The Rise of the Citizen Data Scientist

The Data Value Journey as described for many years



DESCRIPTIVE
XYZ Co. has seen 80% YoY revenue growth for 3 years

DIAGNOSTIC
The growth can be attributed to a spike in social engagement after an influencer promoted daily use of the core product

PREDICTIVE
XYZ Co.'s growth will increase to 20% next year

PRESCRIPTIVE
XYZ Co.'s should start to move into convenience stores this year to optimize its growth potential