

Before Going to Market: Ask Polly



ADVANCED SYMBOLICS INC.

International Auditing and Assurance
Standards Board

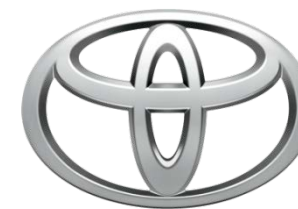
Key Customers



Health
Canada



Cadillac
Fairview



TOYOTA

GREENPEACE



aeroplan

Table of Contents



Slide 4	AI: What it is and What it Does Well
Slide 5.....	Why AI is the Desired Tool for Business
Slides 6 – 7	Inside the Black Box and How it Works
Slides 8 – 13	Illustrating AI's Capabilities
Slide 14	Auditing and Natural Language Processing
Slides 15 – 16.....	Using AI to Identify Financial Restatements
Slide 17.....	How AI can Detect and Prevent Fraud
Slide 18	Identifying Cryptocurrency Fraud

Artificial Intelligence (AI)

What it is:

The capability of a machine to imitate intelligent human behaviour

What it does well:

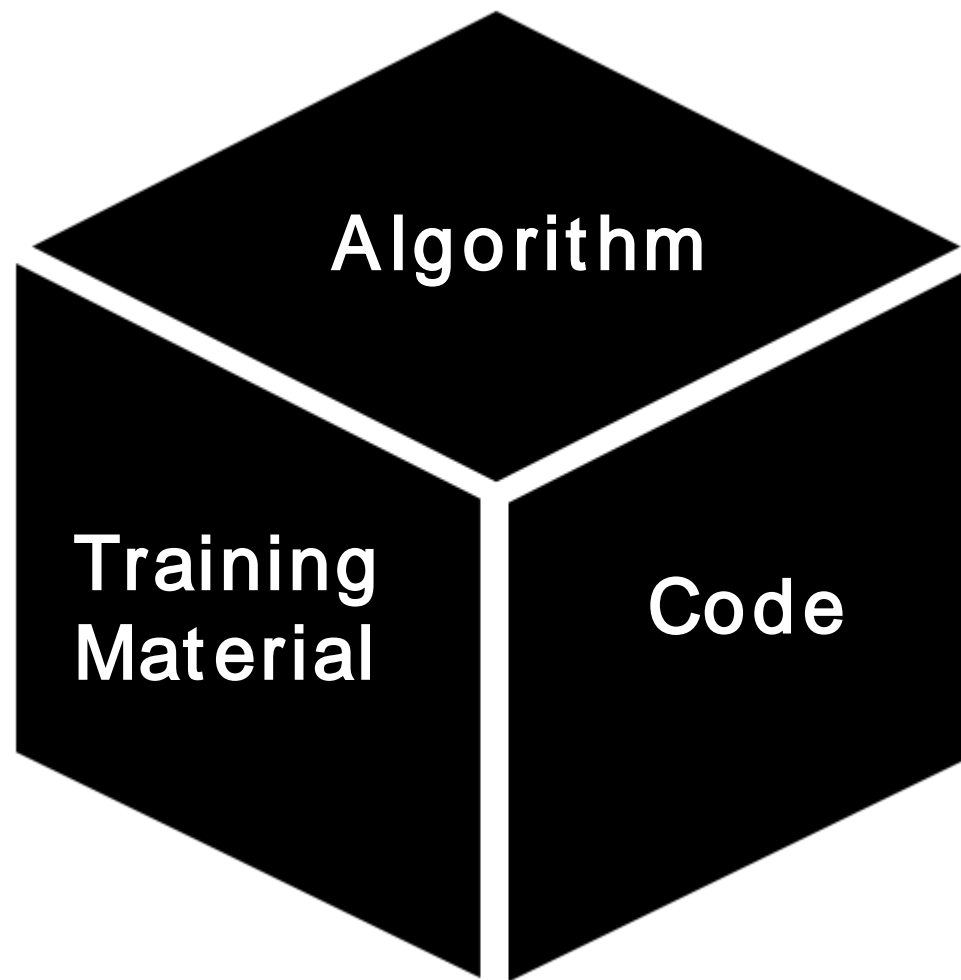
- Identifies patterns
- Predicts actions and behaviour
- Processes information
- Expedites routines and repetitive tasks
- Improves accuracy and reduces human errors
- Inventory control
- Logistical planning
- Data mining
- Identifies fraud risk factors
- Image recognition

Why AI is the Desired Tool for Business



1. Versatile technology that benefits the business operations of any organization in any industry
2. Mines vast amounts of data quicker and more accurately than humans
3. Saves time and money by automating routine tasks and eliminating human errors
4. Learns and predicts customer actions and preferences to improve customer experience and loyalty
5. Helps increase revenue by identifying sales opportunities
6. Uniquely measures finance, operations and “creative” sections of an organization

Inside AI's Black Box



How it Works

Samplers



Classifiers

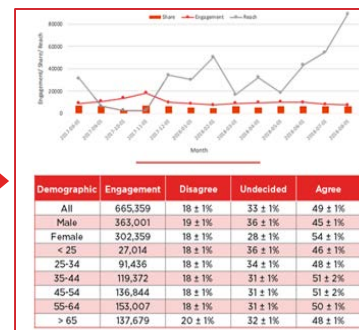


Data Lake

Person 1	Person 2	Person 3
SMS 1	SMS 1	SMS 1
SMS 2	SMS 2	SMS 2
SMS 3	SMS 3	SMS 3

SMS = Short Social Message

Data Output



Statistics



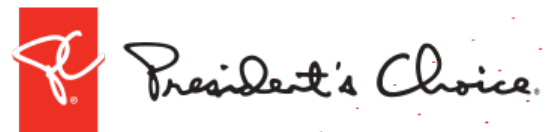
Topics and Articles



Training



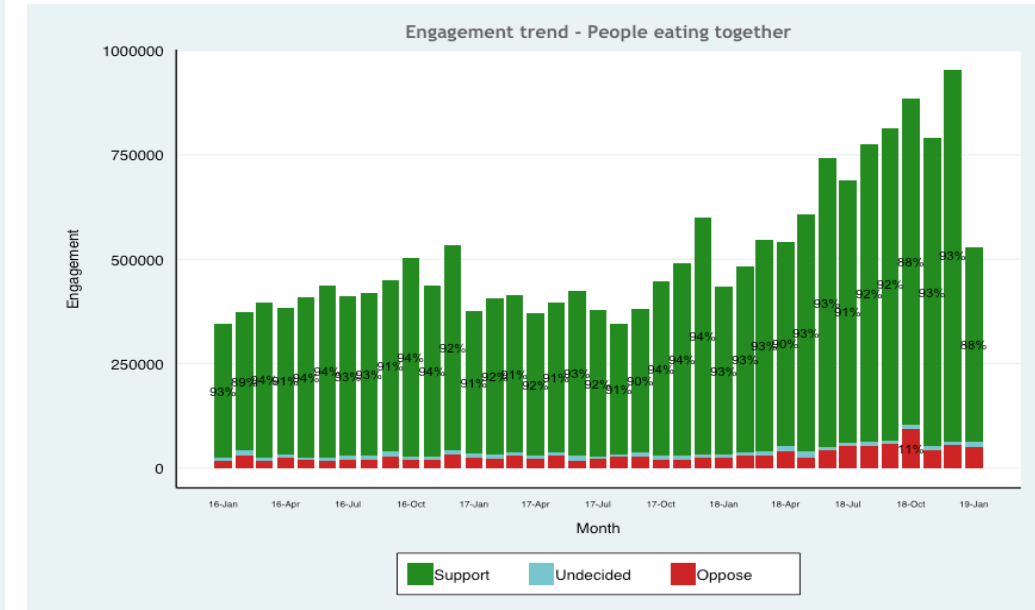
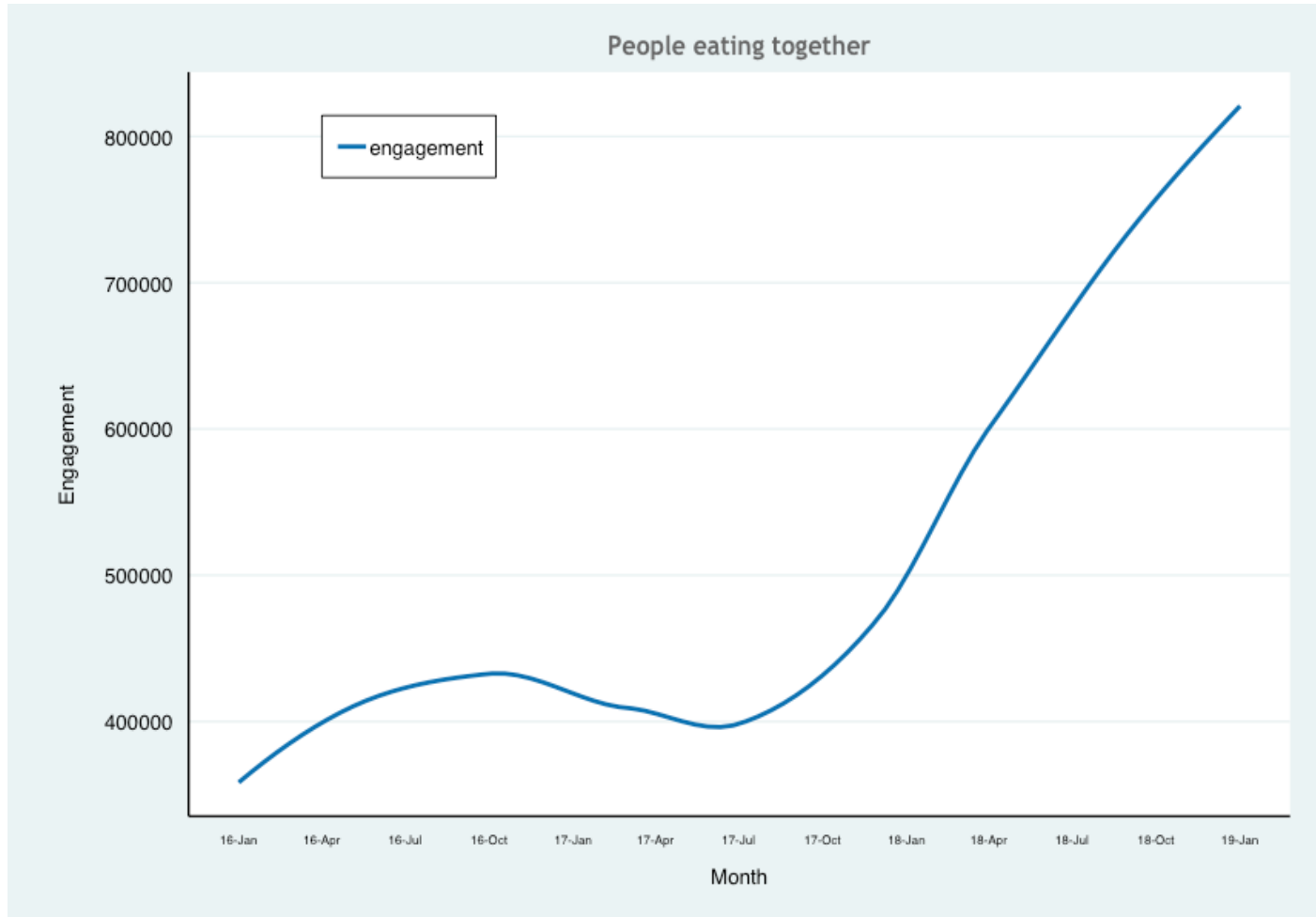
To Illustrate AI's Capabilities...



President's Choice

Advertising Effectiveness

Measuring Effectiveness of *Eat Together* Campaign



Successful over time:

Engagement with Eat Together campaign began rising dramatically in Fall 2017, continues to trend upward

Successful over time:

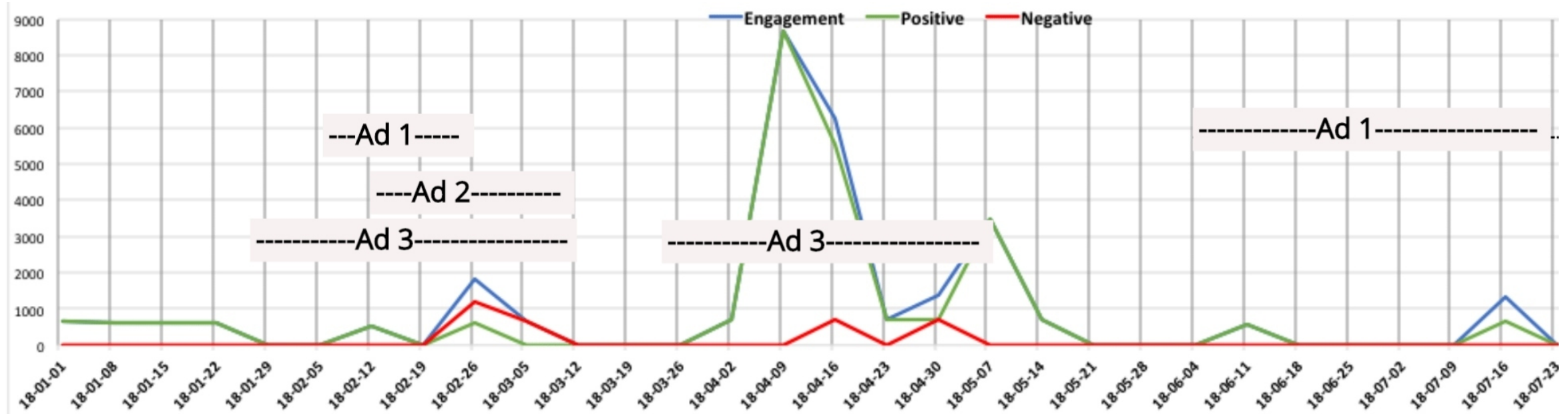
Canadians have consistently engaged positively on the Eating Together topic with new positive voices entering the conversation



Toyota

Advertising Effectiveness + Competitor Analysis

Expensive Advertising Campaigns Don't Always Drive Engagement



- Three campaigns were active during the Olympics, but saw little engagement

Toyota Being Beat on Price and Included Features by Hyundai



	Engagement	Negative	Neutral	Positive	Net positive
Looking to buy a car	4,733,400	26%	17%	57%	31%
Talking about Toyota	241,100	24%	21%	55%	31%
Talking about buying Toyota	17,600	5%	21%	74%	69%
Talking about Honda	240,200	19%	14%	66%	47%
Talking about buying Honda	20,000	13%	14%	73%	60%
Talking about Ford	636,000	25%	21%	54%	29%
Talking about buying Ford	44,900	21%	29%	50%	29%
Talking about Hyundai	99,100	26%	24%	50%	24%
Talking about buying Hyundai	26,400	5%	1%	95%	90%

- Originally only compared 2 manufacturers, but ASI suggested looking at other brands
- People talking about buying a Hyundai are overwhelmingly positive because of the Price and Included Features

**And of course AI can be used for
financial auditing to tackle those tough
issues thanks to:**

Natural Language Processing

Reporting Benefits: Using AI to Identify Financial Restatements

- Most studies focus on intentional vs. unintentional restatements
- Unintentional restatements are 31x more prevalent than intentional
- Lack of focus can cause relaxed internal controls and lessen efforts to curb oversights + misreporting



Finding Financial Restatements with Predictive Models

- AI enables the use of predictive models to identify both intentional and unintentional financial restatements
- Early detection of restatements beneficial for accountants, investors, and regulators
- Predictive model based on widely-used data mining techniques, including:
 - I. Decision Tree (DT)
 - II. Artificial Neural Network (ANN)
 - III. Naïve Bayes (NB)
 - IV. Support Vector Machine (SVM)
 - V. Bayesian Belief Network (BBN)

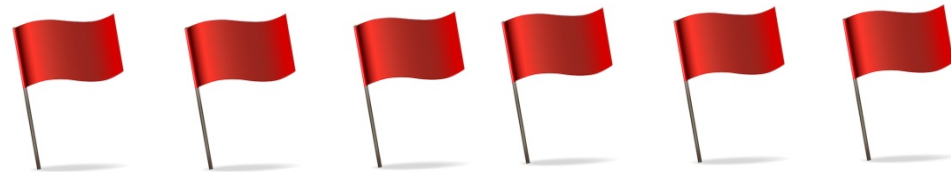


Detecting Potential Fraud with AI



A single, unspectacular greasy spoon restaurant claims \$1,000,000 in revenue.

Are those earnings legitimate?



AI like Polly looks for who (if anyone) is talking about the restaurant and where they are posting from. Low engagement on social media should bring up red flags for a supposedly popular and successful business.

How AI can Detect and Prevent Cryptocurrency Fraud

AI can detect online discussions and mentions of cryptocurrency fraud.

Crypto-fraud needs large volumes of potential investors. Some of these people—even unwitting victims—will discuss fraudulent cryptocurrency activities online.

Common Types of Cryptocurrency Fraud

- Fraudulent Initial Coin Offering (ICO)
- Illegitimate Exchanges
- Fake Digital Wallets
- Phishing Scams

Detecting Fraud with AI

Once trained to understand cryptocurrency and examples of fraud, the AI will monitor online discussions for potential cryptocurrency fraud. When an action matches flagged fraudulent behaviour, authorities can be notified for follow-up and investigation.





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